



TIMA-Balt

Leonardo da Vinci programme project

TRANSFER OF INNOVATIVE METHODOLOGY FOR ASSESSMENT OF VET TEACHERS' PRIOR LEARNING

LLP-LdV-TOI-2007-LT-0004

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METHODOLOGY FOR ASSESSMENT OF NON-FORMAL AND INFORMAL LEARNING ACHIEVEMENTS IN A STUDY PROCESS

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This project has been funded with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Introduction

This methodology suggests the design and development of the procedure of assessment of non-formal and informal learning achievements in vocational teacher education.

The primary goal of assessment of prior learning (APL) in VET teacher education is the improvement of the effectiveness of VET teacher education programmes. This effectiveness is achieved by increasing accessibility and flexibility of formal learning programmes, as well as promoting participation in Lifelong Learning processes by providing teachers with opportunities to enrol in study programmes according to personalised study plans. Secondary goals are:

- to avoid double learning,
- to match the choice of the study programme to individual learning needs,
- to reduce learning costs,
- to evaluate the relevant value of previous learning based on experience,
- to increase self-esteem and self-confidence of learning teachers,
- to ascertain which knowledge and skills are to be improved,
- to promote a more positive attitude towards learning at the workplace by emphasizing particular achievements rather than the institution or country where they were made.

The ***Methodology for assessment of non-formal and informal learning achievements in a study process*** is one of the outcomes of the Leonardo da Vinci Programme project 'Transfer of Innovative Methodology for Assessment of Vocational Teachers' Prior Learning' (No. LLP-LdV-TOI - 2007-LT-0004). More information about the project can be found at <http://www.vdu.lt/tima-balt>.

Principles of APL

Referring to the systematic approach, it is clear that the existence of system for assessment and recognition of vocational teachers' achievements (acquired during their non-formal and informal learning) depends on the needs of the surrounding (vocational teacher education) system. The principles and goals of the assessment system are defined by the participants of the vocational teacher education system: vocational teachers themselves, vocational teacher educators and heads of vocational schools, and get into assessment system as the input. The input determines the structure and the processes of the assessment system in a way to produce the functions as an output for fulfillment the needs of vocational teacher education.

Assessment of prior learning is a complex process, which consists of certain stages and involves certain actors, which may vary depending on tradition culture. Therefore it is important to ground APL processes on common principles.

Learning outcomes based approach. Learning outcome is the statement of what a learner is expected to know, understand and/or be able to demonstrate upon completion of the learning process. Learning outcomes formulated in the study programme being designed are seen as a starting point for assessment of the achievements of non-formal and informal learning. Learning outcomes are a kind of “check-list” describing good teaching practices, and a “yardstick” to compare personal achievements with the required ones. Learning outcomes are based on the definition of competencies, and they are formulated as the required results within the framework of the study programme. Those achievements, acquired during the non-formal and informal learning are also compared to the requirements of the formal programme, so that the evaluation solution could be made – do they match together.

Integrity / Process approach is based on a series of procedures which set up the design and development of the APL system. It is emphasised that all the step-by-step procedures of the recognition of non-formal and informal learning must be taken into account, and the entire process should be clear and unambiguous both for the candidate and the assessor.

Expedience, which is understood as the opportunity to use the assessment results to choose the part of the formal education programme, which best corresponds to personal learning needs, and as a stimulus for further participation in lifelong learning process.

Stakeholder participation in the assessment and recognition process. Assessment is described as a pattern to ensure permanent links between labour market, vocational teachers and vocational teacher education institutions. Stakeholders are persons or groups, interested in the quality of learning at a certain study programme, or in recognition of non-formally or informally acquired competencies. Stakeholders are represented by the following groups: academic and administrative staff of the institution, learners, graduates, employers, representatives of professional associations, governmental institutions, trade unions, etc. Stakeholders can be involved in identifying competencies that are necessary for VET teachers, and these competencies form the basis for the definition of learning outcomes.

Exactness and validity. This principle ensures the reliability of the results of assessment.

Versatility of assessment methods emphasizes the diversity of learning methods, and the triangulation, seeking to substantiate the assessment results on deeper analysis of cognitive, psycho-motoric and affective learning achievements. The assessment methods should include both assessment of the written information and examination of the empirical evidence of the competencies to be recognized.

Transparency, emphasizing the quality assurance mechanisms, built on certain methodology.

Principle of volunteerism and consciousness states that the process of assessment and recognition is complex, time-consuming and requires candidate endeavour, therefore it should not be compulsory, but based on possibility to choose.

Principle of trust (assuring the competence of assessors) states that trust to the assessment process is associated with the persons, implementing the assessment, and their formal qualification and real competence.

Periodic renewal. The APL procedure is open for change and development; therefore it should undergo periodic renewal. The necessity of APL procedure, its expedience, feasibility, propriety and accuracy, as well as the effectiveness of assessment methodology, and the quality of assessors' activity should be periodically examined. The evaluation results show

strengths and weaknesses of the APL procedure, and its improvement includes the enhancement of the identified strengths as well as the elimination of the discovered weaknesses.

Prerequisites for APL in VET Teacher Education

APL is the integral part of vocational teacher education system; therefore it is influenced by its patterns. The existence of APL within the VET teacher education is determined by such factors as:

- Creation of APL system should be based on the correspondence to the context of international / national / regional / institutional VET teacher education system;
- There should be a legal base, regulating the proceedings of whole system of VET teacher education and foreseeing the niche of APL;
- Description of qualification of VET teacher, listing the functions and competencies required;
- Learning outcomes based VET teacher education programmes, as the starting point of APL methodology;
- Internationally / nationally / regionally / institutionally agreed framework of APL methodology;
- The qualification of APL assessors should be clearly defined and assessor training provided;

Participants of APL process

Various actors can contribute to the success of the assessment of VET teachers' non-formal and informal learning achievements, but the key persons to be mentioned are the VET teacher themselves, who both is the APL candidate and the initiator, the consultant, tutor, and, finally, the assessor, who makes the decision considering the assessment results (see Table 1).

APL candidates themselves are the most important and the key persons in the entire process of APL. The quality and the success of APL mainly depend on the purposes and the attitudes of the candidate. The candidate should understand the role of APL in their own career development. The initiating candidate should have enough information on APL and motivation to collect and to demonstrate the evidence of their professional development results, i.e. carry out the self analysis of their own learning achievements.

Consultant. Even though the lifelong learning ideas are being actively promoted, one can admit that learning and planning of professional career is not the common activity in the VET teacher education culture yet. Therefore the role of the consultant as the facilitator becomes very important for the APL candidates as they have little or no experience in planning learning activities or gathering the evidence of learning, which is happening on-job. The assistance of the consultant is central at the information gathering stage and while preparing to present it to the assessor.

Tutor is one of the actors in VET teacher education who works at university and is responsible for the design and development as well as implementation of the VET teachers' education programme (in academic perspective) and education process at university. At the preparation for APL stage tutor could provide consultations on the entire study programme and become one of the stakeholders, considering the rules and requirements of the study programme.

Assessor (subject lecturer) is the expert in the subject, the APL candidate applies. The task of the assessor is to make a decision whether the demonstrated knowledge, skills and attitudes correspond to the learning outcomes of a study programme (or competencies, listed in the professional standard). The assessor is responsible for analysing the candidate's portfolio and for selecting appropriate assessment methods in order to attest the evidence, presented in portfolio.

Table 1. **APL actors and their tasks at concrete stages**

Stages of APL	Tasks	Actors	Challenges
Preparation stage	Initiation	Candidate (VET teacher)	<ul style="list-style-type: none"> – Be aware of the benefits of APL – Be aware of the curriculum structure
	Informing	Consultant	<ul style="list-style-type: none"> – Use various methods of providing information – Explain the APL process
	Consultation (for compiling portfolio of evidence)	Consultant + Candidate (VET teacher)	<i>Consultant:</i> <ul style="list-style-type: none"> – Use of consulting strategies and techniques <i>Candidate:</i> <ul style="list-style-type: none"> – Formulate their expectations and aims
Assessment	Portfolio analysis	Assessor + Candidate (VET teacher)	<i>Assessor:</i> <ul style="list-style-type: none"> – Setting assessment criteria <i>Candidate:</i> <ul style="list-style-type: none"> – Presenting the evidence, collected in evidence portfolio
	Selecting assessment methods	Assessor	<ul style="list-style-type: none"> – Choosing assessment methods for each competency component (knowledge, skills and value attitudes)
	Formative and summative assessment	Assessor + Candidate (VET teacher)	<ul style="list-style-type: none"> – Personal contact is important – Constructive feedback and dialogue
Decision making	Full/partial recognition	Assessor	<ul style="list-style-type: none"> – Matching assessment results with the learning outcomes of a study programme
	Personal learning plan	Assessor +Candidate (VET teacher) + Consultant	<ul style="list-style-type: none"> – Discussions and negotiations considering personal aims and results of the assessment
Quality assurance	Internal quality assurance	Assessor+ Consultant +Candidate (VET teacher)	<ul style="list-style-type: none"> – Open discussion on improvement of the procedure, considering the feedback from all APL actors
	External quality assurance	External expert (not discussed in this Methodology)	

APL process

Most often the APL procedure involves several consequent and integrated stages such as: informing, consulting, assessment, and decision making (see Fig.1).

The stage of *informing* is intended to familiarize the candidate with the APL procedure, APL principles, assessment criteria, possible assessment results. The stage of informing requires establishing qualitative criteria and indices in

order to ensure the APL accessibility. Accessibility is also the assurance of equal opportunities, which are the essence of APL procedure, it provides the explanation of particularity, and thus gives the opportunity to discuss possible assessment results.

It should be noted that the stage of informing is not always attributed to the APL procedure as information processing is very extensive and labour-consuming activity. The information (concerning further steps, assessment criteria, etc.), received at this stage also influences a candidate's decision whether they can get prepared for the assessment alone, independently, or they will need help of the consultant.

The stage of *consulting*. Consulting in a broad sense is a process during which a consultant helps the candidate to prepare for the APL. This stage requires transparency and fairness as regards the candidate, i.e. a person has to know what their input will be during the assessment procedure, how much time it will take, what assessment criteria will be employed, how definite situations will be regarded, and other aspects. Consulting can be individual or group. At the stage of consulting the procedure of assessment is introduced in detail. In contrast to the stage of informing which informs about the stages and principles of the assessment procedure, at the stage of consulting the candidate is advised on the assessment procedure paying particular attention to the submitted evidentiary material of learning achievements and analyzing their compliance with the professional standards, or learning outcomes in a particular study programme.

In the process of individual consultations the help is also provided in compiling a portfolio of the documents or other evidence that prove personal knowledge, skills and value attitudes. The consultant can advise in what logical sequence all the documents, reflections, sketchbooks, certificates, diploma copies, or any other competence attesting evidence should be arranged.

The stage of *assessment and evaluation* (as decision making) is the last stage of the APL procedure. This stage of assessment involves the analysis of the candidates learning achievement evidence provided in the portfolio, and the analysis of its compliance with the learning outcomes identified in the study programmes. In the process of the assessment of the portfolio it is considered whether there is enough evidential material to attest the desirable competencies, whether it is authentic, i.e. whether it reflect precisely individual factual knowledge and skills.

If the learning achievement portfolio lacks evidential material to prove the candidate's desirable competencies, the assessor chooses other methods of empirical assessment. It can be an interview, test (oral or written), practical tasks and the observation of practical tasks, the analysis of reflections, etc. The assessment methods can be various and selected according to the situation in order to identify as many as possible achievements of a candidate and provide a comprehensive picture of their competencies.

Decision making is the final stage of the assessment procedure. The decision on what competencies can be recognised is made by the assessor or the assessment committee. If the candidate proves to have the competencies defined in the professional standard or particular study programme, they are awarded the certificate that attests the qualification, or, if the candidate aims at acquiring additional knowledge and skills, a personal study plan can be developed and the candidate can choose only those study programme modules or subjects that are necessary for the acquisition of a desirable qualification.

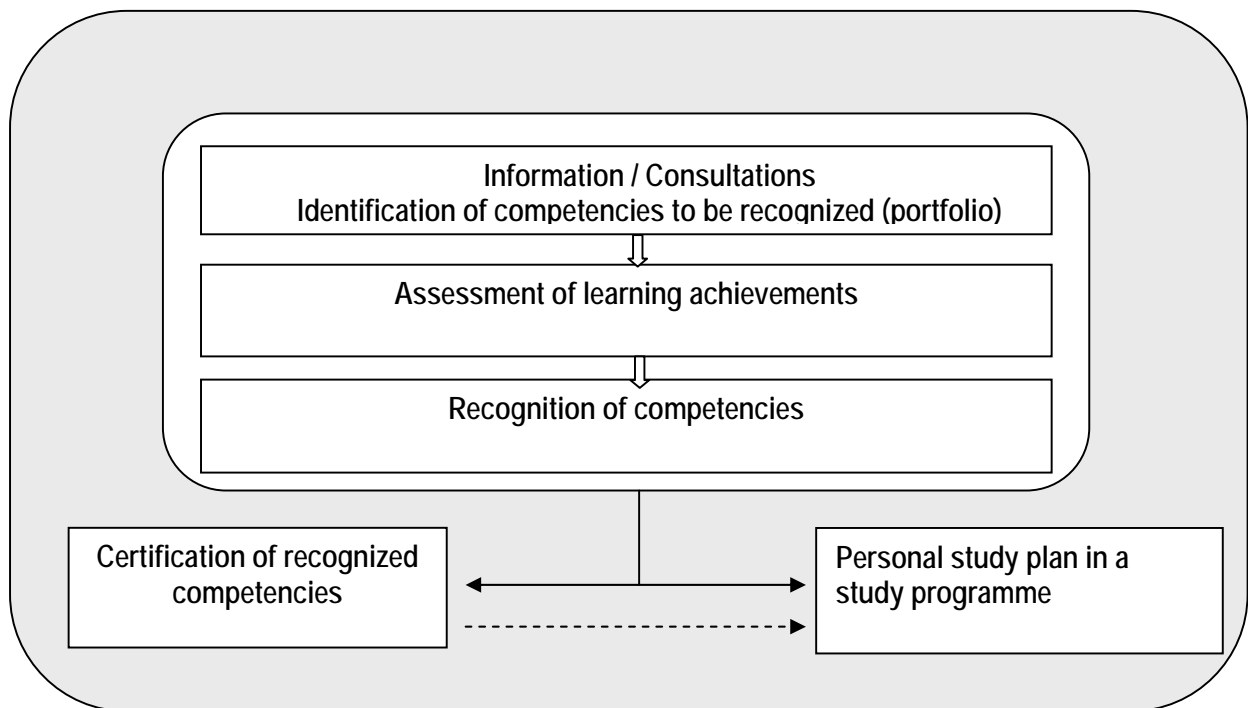


Fig. 1. The APL Process

APL Methods

The idea of assessment of prior learning is to recognize that teacher's competence has been developed in a variety of learning situations through job and life experience. Assessment of teachers' non-formal and informal learning could be described as a holistic form of assessment as it assesses a number of related knowledge, skills and value attitudes simultaneously.

Development of assessment methodology involves such processes as:

- setting the assessment criteria (which are described as attributes, on the basis of which the evaluation decision is made). Competence (being an attribute of the person) can be assessed singling out particular competencies of a teacher (formulated as requirements for knowledge, skills and attitudes, necessary for implementing a certain professional activity);
- selecting assessment methods (suitable for assessing the knowledge, skills and attitudes being components of a certain competency) considering that competency can be evidenced in actions, behaviour and activity results of the teacher (see Fig. 2). Assessment methods then have to be chosen accordingly.

Competency components	Evidence of competency in:		
	<i>actions</i>	<i>behaviour</i>	<i>results</i>
<i>Knowledge</i>	→ → →	→ → →	→ → →
<i>Abilities and skills</i>	→ → →	→ → →	→ → →
<i>Attitudes</i>	→ → →	→ → →	→ → →

Fig. 2. **Assessment of learning achievements, regarding to their evidence in actions, behavior and activity results**

A number of methods exist which allow comprehensive, flexible and effective assessment of teachers' knowledge, skills and value attitudes. The main purpose of matching various assessment methods is to gather enough evidence to prove that the person has gained required professional knowledge, skills and value attitudes during their work experience.

Criteria for assessment require that the evidence should:

- Be based on actual performance and not just theoretical knowledge;
- Demonstrate an acceptable level of competence against performance indicators (such as learning outcomes in a study programme or the list of competencies in a professional standard);
- Demonstrate an ability to transfer knowledge and skills in pedagogic situations in different environments;
- Be up-to-date;
- Be sufficient to prove competence in different types of attesting, for example, in research and continuous professional development activities;
- Be presented together with the samples of work performed (e.g. a learning programme the teacher has designed; evaluation sheets; reports);
- Be presented together with the feedback from learners, colleagues, line managers etc.
- Reflective analysis of the teacher's professional activities should be attached.

By its nature, the APL is strongly self-assessment based. Therefore the main method should be the evidence portfolio, built by the APL candidate. The other assessment methods (such as concept maps, essays, case studies, simulations, interviews and observations) should serve as supplementary methods, by assessing if and how the information, provided in the portfolio reflects the real competence of the APL candidate.

Quality of APL

The quality of the APL could be assured following the Quality Assurance Model, which has been presented in Fundamentals of a “Common Quality Assurance Framework” (CQAF) for VET in Europe (2005) with the adaptation of the classical Deming Quality Improvement Cycle (Plan-Do-Check-Act). The model includes four phases – planning, implementation, evaluation and review – and methodology, linking all the phases of the quality cycle (Fig. 3).

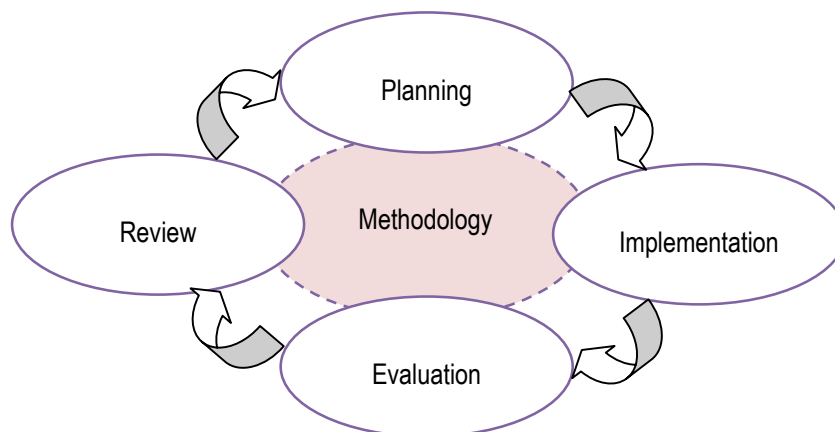


Fig. 3 Quality Assurance Model (adapted from CQAF, 2005)

Methodology is an element of the quality assurance model that deals with the following aspects: what are the assumptions to ground planning, implementation, evaluation and review of the APL; what stakeholders expect and how they are involved in the quality assurance process; what methods are used for data collection and analysis; how internal and external quality assurance procedures are correlated, etc.

Planning is the process of designing the APL process. To ensure the high quality planning, the design process should include the following stages:

- description of the tasks and responsibilities of the actors of APL process
- identification of assessment criteria of learners achievements
- designing the APL procedure according to institutional / regional / national needs

Implementation phase covers the realization of the APL. The quality of the realization could be assured by the following actions:

- Performing effective management of resources of APL – intellectual, human, material and financial.
- Maintaining cooperative relation between the APL actors. Relations with other institutions, implementing APL should also be fostered.
- Application of appropriate admission requirements for APL candidates. All the requirements should be clearly stated and publicly presented to assure the transparency of the procedure.
- Performing support to the APL candidates. Providing timely, informative and helpful consultations and feedback.

- Implementation quality assurance procedures, which should be clearly specified, evaluation criteria be transparent, evaluation of APL procedure performed periodically, evaluation results applied to improve the quality of the APL, and stakeholders participate in the quality process.

The *evaluation* of the APL is making the judgment on the quality of the APL with regards to the results of the performed assessment. Evaluation includes assessment, and it is a cyclic process. Assessment involves data gathering, systematization and analysis with the intention to make judgment on the quality of APL. The whole process starts with the definition of evaluation goals, areas, criteria and indicators. Then, possible information resources are stated, assessment methods and tools selected and developed. Afterwards, the relevant data are gathered, analyzed and systematized. Finally, Strengths and weaknesses of the APL are identifies, as they allow making decision of the quality.

Review completes the quality cycle. Its primary purpose is to ensure that results obtained in the evaluation phase are appropriately reflected in the follow-up process that will give a start to a new quality cycle. The defined strengths of the APL process should be further enhanced, whereas the weaknesses need deeper analysis to identify their causes. It is essential that the stakeholders are involved in the process of discussing evaluation results and participate in further improvements.

Basic concepts

Assessment – a systematic process of collecting and analyzing evidence information of learning achievements to determine its appropriateness to learning / study outcomes, foreseen in the learning / study programme.

Assessor – qualified person, who carries out the following functions: consultations, assessment, and evaluation.

APL Candidate – a person, seeking to be awarded an academic credit for learning experiences acquired outside the formal education institutions.

Competence – demonstrating effective and qualitative activity, which meets the requirements of the world of work. Competence is determined by the competencies of a person, level of qualification and professional experience.

Competency – a person's ability, confirmed by some document, to perform a certain valid and reliable part of an occupational activity in an unpredictable (working) situation, described in an occupational standard (Pukelis, 2009).

Evaluation – making judgments according to assessment results and agreed criteria.

Implicit competency - is the competency that a person claims to evidence and get the recognition for.

Learning achievements – are knowledge, skills and attitudes, which can be demonstrated by a person. These can be achieved within formal, non-formal or informal learning process.

Occupational standard – description of attributes, activity functions and the competencies, needed for the performance of these functions. Occupational standards are being created by the experts of certain professions.

Qualification – is a formal document that indicates the validity of person's abilities for a certain occupational activity. Qualification is awarded for a person if they achieve defined learning / study outcomes of the accredited learning / study programme (Pukelis, 2009).

Portfolio – a systematically structured collection of evidence of learning achievements based on self analysis, acquired inside or outside the formal training or work environment. It reflects the needs of professional development of a person (Fokienė, Sajienė, 2009).

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