



Assessment of learning outcomes

In the context of ECVET implementation for transnational mobility

Note: These guidelines are the result of the joint work of eleven ECVET pilot projects¹. The initial ideas for the guidelines were produced during the technical seminar in Barcelona (June 2010). The guidelines were then written up, further elaborated and again consulted with the projects during the seminar in Prague in November 2010. They were written up by GHK Consulting² in charge of monitoring the work of the ECVET pilot projects.

The purpose of these guidelines is to provide useful hints and ideas on assessment of learning outcomes in the context of transitional mobility and in view of credit transfer.

Some of the messages in this document should be read together with the messages in the Pilot Projects' guidelines on units of learning outcomes³.

Projects participating in formulation of these guidelines:

Aerovet, Be-TWIN, CAPE-SV, Credchem, ECVET Asset, M.O.T.O, N.E.T.Work, OPIR, Recomfor, SME Master Plus, VaLOGreg

¹ For more information about the projects and their joint activities see the web-site: www.ecvet-projects.eu

² www.ghkint.com

³ <http://www.ecvet-projects.eu/Toolbox/ToolboxList.aspx?id=14>

INTRODUCTORY REMARK

In the framework of geographical mobility of learners, assessment can be considered as having two main roles:

- On one hand it gives additional value to mobility. The fact that learners are assessed, the learning outcomes are made visible and they are aware, as well as their teachers, of the progress they made during mobility is important for identifying the added value of mobility for learners. **Learners' assessment** therefore **contributes to valorise mobility**.
- On the other hand assessment is a **basis for validation and recognition of learning outcomes when learners' credit is being transferred**. The fact that learners' learning outcomes have been positively assessed, in line with the learning agreement, and the result of the assessment is documented serves as basis for validating and recognising learners' credit (note: credit is understood here in line with the ECVET Recommendation as assessed learning outcomes).

SUMMARY

Overall seven key messages were identified by the ECVET pilot projects with regard to ECVET and assessment of learning outcomes.

Firstly two messages of a rather general nature in relation to assessment in the framework of transnational mobility were made:

- Partnerships should reflect on the feasibility and appropriateness of assessment they envisage. This concerns reflecting on constraints such as time and resources available or the language skills of learners and assessors;
- The partnerships bring in partners from different qualifications systems each of which had its own practices and traditions to assessment. It is important to accept that learning outcomes can be assessed using different approaches/methods or that the profile of assessors may differ from one country to another. Otherwise there is a risk of imposing too much burden and changes on the partner institutions which will in the end constraint the possibilities for organising exchanges.

After these more general considerations these five concrete recommendations were made:

- When grouping learning outcomes into units that are to be used in transnational mobility, partnerships should reflect on the implications for assessment. Some units can be too large to be assessed during a mobility period or they may require an assessment that is too complex to be carried out abroad (possibly in a foreign language).

- The quality and precision of learning outcomes descriptions is an important basis for assessment. When the learning outcomes descriptions are unambiguous the understanding of assessment criteria and the choice of assessment methods is facilitated.
- The assessment procedures and criteria used in the partner systems for the units concerned should be transparent (for example described in a learning agreement or Memorandum of Understanding).
- The results of learners' assessment need to be documented so that when the learner returns to his/her home institution there is sufficient evidence on the results of assessment to validate and recognise his or her credit. This can be done using simple grids or templates that are based on learning outcomes descriptions.
- Given that partnerships are likely to use different approaches and methods for assessment mechanisms to ensure the quality of assessment and of its result should be clear. This is expected to stimulate trust among partner systems. Means to ensure quality of assessment in transnational mobility include agreeing some common principles, sharing common documentation, in the initial phases of the partnership organising joint assessment (with the home and host institution).

1 GENERAL CONSIDERATION 1:

ASSESSMENT NEEDS TO BE FEASIBLE AND APPROPRIATE

Recommendation:

In the context of transnational mobility assessment procedures need to be straightforward enough so that they can be feasible given the duration of the mobility period and the language skills of learners and assessors. This is in particular to be taken into account when the duration of the mobility period is short.

They also need to be appropriate for the learning outcomes concerned (not too complex and not too simple).

Explanation/further information:

Assessment is a very important element in applying ECVET. However, it is important to respect the main aim of implementing ECVET: facilitating and enhancing mobility. If the negotiations and the documentation concerning assessment procedures in a mobility perspective are too complex this could be an obstacle to reach this aim. Therefore, mutual trust is a basic requirement and over-regulation should be avoided.

The assessment should focus on evaluating whether agreed learning outcomes have been achieved or not. When tools are developed such as matrices or grids these should support the original aim while remaining user-friendly.

The assessment procedures should be appropriate for the type of mobility (company-based or school-based training abroad), the duration of the mobility phase (for example, “partial assessment” could be possible in case of shorter mobility periods) and the purpose of the mobility phase.

If appropriate, innovative procedures and methods that fit the mobility purpose could be developed. For example, initial and final (summative) assessment could be introduced to show the added value of acquiring learning outcomes abroad. Formative assessment could be used for enhancing learner’s reflection on their learning process abroad.

2 GENERAL CONSIDERATION 2:

ASSESSMENT PROCEDURES NEED TO RESPECT EXISTING REGULATIONS/ REQUIREMENTS

Recommendation:

When the partners discuss assessment procedures for transnational mobility it is important to respect existing (national or system-level) regulations on assessment and to accept that different forms of assessment can be reliable and valid.

Explanation/further information:

All systems have their own approaches to assessment. For example in some systems teachers are the main assessors while in other systems social partners, employers or chambers are systematically involved. The assessment methods used will also vary greatly: certain systems use frequently observation by a skilled professional on the workplace as an assessment method others use simulations or project work. In some countries it is common to involve students' self-assessment as part of the assessment process.

It is feasible to accommodate these differences in assessment methods and approaches during mobility exchanges:

- One possibility is that the home institution accepts that the assessment as carried out abroad is reliable and valid even though it is different to the assessment that they would have carried out had the student remained in the host institution. They can accept the assessment done in the host institution as it is carried out according to the rules and traditions in the host system.
- Another possibility is to discuss with the host institution whether and how the assessment in the host institution could be adopted to satisfy the requirements of the home institution. For example, if the home institution requires that student self-assessment be part of the assessment abroad, it may be possible for the host institution to accommodate for this request.

In addition, when the regulations on assessment within a system are very strict (for example, acceptance of certain methods or certain assessors' profile only), the competent institutions in charge of regulating assessment could reflect on the possibility of allowing certain flexibility for these regulations. This could be specifically restricted to the use of ECVET in the context of transnational mobility.

It is of particular importance to ensure before the mobility takes place that the

assessment from the host institution will be acceptable in the home system, in particular when the assessment procedures are quite different from the ones used in the sending country.

At the same time it is also important to respect the pedagogical autonomy of education and training providers and the diversity in applying assessment procedures among systems.

Example from a project:

The Recomfor project identified that the assessment practices in the partner countries fall under one of the below three cases. Note that the extent to which the assessment practice is considered reliable or not will also depend on the rules and practices of the partner system which makes the judgement (e.g. a country A can judge the practice in country X reliable according to the rules in the qualifications system A while it may be considered not sufficiently reliable according to the rules in system B). The three cases are:

- The assessment in the host country is comparable to that in the home country – i.e. it is not the same but similar → it can be accepted for transferring credit
- The assessment in the host country is different but reliable – i.e. different methods are used but these are appropriate for the expected learning outcomes → the assessment can be accepted for credit transfer
- The assessment is different and it is not clear (according to the rules in the “home” system) whether it is reliable → in case of a partnership there would be a need to implement specific assessment that can be accepted by the partner institutions in view of credit transfer

The judgement on whether a system falls into one category rather than another is based on information regarding:

- The assessment criteria
- The assessment method – how will the LO be assessed?
- The timing of assessment – when in the training pathway will it take place?
- The qualifications/profiles of assessor(s) – who will assess?
- The context of assessment – where will the assessment take place?
- The quality assurance of assessment

3 WHEN GROUPING LEARNING OUTCOMES INTO ‘UNITS FOR MOBILITY’ REFLECT ON THE IMPLICATIONS FOR ASSESSMENT

Recommendation:

According to the definition of a unit, it should contain knowledge, skills and competence that can be **assessed**.

The learning outcomes in a unit should be assessable through one or several assessments.

In the context of geographical mobility **the feasibility of the assessment for given learning outcomes should be taken into consideration**. When the job-situation context is used as a reference for defining learning outcomes, the use of occupational activities/working tasks as the basis of units facilitates the assessment abroad.

The **size of the units** (number of learning outcomes and/or their complexity) should also be taken into consideration as it is **related to the complexity of assessment**. This also influences the feasibility of assessment abroad.

Explanation/further information:

When developing ‘units for mobility’ it is advised to group learning outcomes together in units based on some common ground (according to occupational activities, working tasks, products, etc.). Referring to **occupational activities/working tasks** as basis for units has several **advantages** regarding **assessment**. This approach

- makes it easier to design assessment approaches based on methods such as observation or simulation which can be more adapted to assessment abroad where the learner does not always master (fully) the language of the country or the language of instruction;
- facilitates assessment on the workplace which may be one context for mobility periods;
- makes it easier to agree/define the assessment criteria;
- makes the assessment criteria easily understood to assessors from different backgrounds and countries;
- makes the assessment criteria also easily understood by learners and therefore facilitates self-assessment.

Regarding the size of units, if the unit is too big, contains a great number of learning outcomes, it may be necessary to assess them in a quite complex assessment approach or through more than one assessment means. Depending on the duration of the mobility period the feasibility of a more complex assessment needs to be considered.

The definition of sub-units could be considered if units are rather big and therefore not feasible for mobility.

Example from a project:

The CREDCHEM partners (teachers/trainers) are developing assessment tasks based on the work tasks identified as basis for designing units of learning outcomes. A pool of possible assessment tasks will be developed for each work task. During the mobility period, for each unit, one exemplary assessment task is selected that is used for assessing whether learners have acquired the learning outcomes comprised in the unit. The assessment tasks distinguish three competence levels (competence steps) which express learners' performance during the assessment. These competence levels are clearly related to the autonomy and proficiency in carrying out the task. They are as follows:

- Competence level 1: "Carrying out actions according to work instruction" – for example: formulation of work assignment (time and expectations, test procedure)
- Competence level 2: "Problem-oriented implementation of tasks" – for example: looking for typical problems
- Competence level 3: "Optimising of methods/procedures" – for example: Which procedure is useful in which conditions? Teamwork is required.

The fact that the assessment tasks are based on the work tasks makes assessment in a laboratory is feasible (the project concerns qualifications related to the profession of laboratory worker in chemistry). The levels of performance are related to the levels of performance expected on the workplace.

4 MAKE SURE THAT THE ASSESSMENT REQUIREMENTS ARE TRANSPARENT FROM THE FORMULATION OF LEARNING OUTCOMES

Recommendation:

The transparency and quality of learning outcomes descriptions is crucial for supporting assessment.

The **learning outcomes description** should be clearly expressing what the learners are expected to know and be able to do so that it can be used as basis to design assessment tasks and define assessment criteria.

Explanation/further information:

A clear and unambiguous description of learning outcomes is a basic requirement for supporting assessment. The formulations are to be written in a way that enables to clearly determine during the assessment process whether the learner has achieved the learning outcomes or not. Therefore, it is important that already the initial formulations of learning outcomes contain relevant information that will support assessment.

Performance indicators should be linked to the initial learning outcomes descriptions and can be used for deriving assessment methods and criteria.

When the learning outcomes description is clear and sufficiently detailed, it is much easier for the persons in charge of the assessment to define the most appropriate assessment method, situation etc.

The following important characteristics of learning outcomes should be considered in the formulation in view of assessment:

- Formulations of learning outcomes typically include **action verbs** that also indicate what and/or how learners are able to demonstrate that they actually have acquired the specific learning outcomes. Different verbs can be used to demonstrate different levels of learning (for example, regarding demand, complexity, depth of study or autonomy).
- Learning outcomes should be **specified** and **contextualised**. It is essential to provide an indication as to what the knowledge and skills of the learner refer to. It is also important to be able to identify what kind of performance is expected. Therefore, the verb will usually be followed by words indicating on what or with what the learner is acting and the nature or context of the performance required as evidence that the learning outcomes were achieved.

- These additional words should also indicate the **level of learning achieved**, for example, by referring to the degree of difficulty or complexity of tasks to be carried out or problems to be solved or the level of performance required (e.g. by using taxonomies). In order to define the appropriate level for the description of learning outcomes, the NQF level of the qualification concerned need to be taken into account. The description of learning outcomes should also be related to the level of autonomy and responsibility (for example, some projects are using a scale indicating different levels of autonomy).

It is important to make sure that the level of performance that is expected by the home institution is well understood by the host institution. It is possible that while both institutions prepare learners for qualifications linked to similar/ the same professions the level of learning outcomes expected from a learner will vary slightly from country to country. This is not necessarily an obstacle to mobility as long as the host institutions understands that the requirements of the home institution are higher or lower than the way they assess their own students.

Example:

The below example shows how the competence description used by the project **OPIR** relates to the assessment criteria and indicators⁴.

Competence: Determine the necessary techniques to carry out the chosen hair cut in full autonomy

Assessment criterion: Adapted choice of techniques in view of the hair cut

Indicator 1: The choice of techniques to be used corresponds to the hair type of the client

Indicator 2: The choice of techniques has to enable the achievement of the chosen hair cut

The project ASSET has also decided to describe all:

- The learning outcomes;
- The assessment criteria; and
- The guidelines for using the assessment criteria for assessors.

The suite of these three aspects is illustrated on the example of one learning outcome that is part of the unit *diagnostic and maintenance of the vehicle stability management system*⁵:

⁴ For more information see: <http://www.ecvet-projects.eu/ToolBox/ToolBoxList.aspx?id=14&type=1>

⁵ For more information see examples from the ASSET project here: <http://www.ecvet-projects.eu/ToolBox/ToolBoxList.aspx?id=19&type=1>

Learning outcome:	Assessment criteria	Guidelines for assessors (including marks/grades):	
Identify with precision the symptoms of the malfunctioning	The malfunction is identified and validated. The documents and information used are adapted to : - the vehicle - the system that has the fault.	The malfunction was not validated and the correct documents were not selected	0
		The malfunction was validated but the correct documents were not selected or the malfunction was not validated but several of the correct documents were selected	1
		The malfunction was validated, the correct documents were identified but some of the information needed was not selected	2
		The malfunction was validated, the correct documents were identified and all of the information needed was selected	3

5 TRANSPARENCY OF ASSESSMENT PROCEDURES, INDICATORS AND CRITERIA

Recommendation:

Clear descriptions of assessment procedures, indicators and criteria in the Memorandum of Understanding or Learning Agreement facilitate the establishment of trust among competent institutions (especially if organisations other than VET providers are involved).

The discussions between the host and the home institution about assessment are also very important for developing trust among ECVET partners on the ground.

Explanation/further information:

It is crucial to make sure that the learning outcomes described in the units will actually be assessed at the end of a learning period abroad. Therefore it is important to discuss the assessment procedures that will be used and to make sure that both parties agree that the assessment envisaged is appropriate for the learning outcomes concerned.

The same learning outcomes can be assessed in different ways and the assessment procedures in different countries and learning contexts can be quite different. **It is not necessary to use the same assessment procedure across the partner organisations but it is important to make sure that the assessment is valid or fit for purpose** (i.e. the described learning outcomes are verified).

Therefore the partner organisations should discuss the assessment processes before the mobility takes place and to make sure that they accept the approach that will be used in the partner organisation. **If the assessment process is not accepted by a partner organisation this could lead to impossibility to validate and recognise learners' credit.**

Hence, in order to facilitate recognition of learning outcomes acquired and assessed abroad it is important to establish trust in the assessment procedures carried out abroad. Trust can be established by making these assessment procedures transparent. Thus, according to the ECVET Recommendation, **each unit should be described, among other things, by the description of assessment procedures and criteria for the learning outcomes concerned.**

Therefore, each unit of learning outcomes included in a Memorandum of Understanding or Learning Agreement should systematically be linked with a clear description of the related assessment procedures. In some cases the assessment method is already indicated in the description of the learning outcomes. However, it is important to make sure that the assessment methods are reliable: they are appropriate for the expected learning outcomes and the assessment tasks mirror the learning outcomes.

The description of the assessment procedures could refer to the following aspects:

- focus (e.g. assessment of each learning outcome separately, of parts of a unit, of the whole unit);
- methods (e.g. test, observation, portfolio);
- instruments (e.g. assessment grids);
- type (formative, summative);
- context and conditions (e.g. kind of tasks to be carried out; real working environment or workshop at school; material and tools to be used; timing and duration);
- identity of assessor (e.g. qualifications, profiles and functions - teacher, trainer, tutor in the company);
- quality assurance of the assessment process.

Units of learning outcomes included in a Memorandum of Understanding or Learning Agreement should also include the description of assessment criteria and indicators:

- Assessment criteria are used to generate the evidence of learning. They are usually more precise than learning outcomes and provide details on the performance expected from learners.
- Assessment criteria can be “threshold assessment criteria” leading to the decision “passed or failed” or they can be formulated as “grade assessment criteria” that can be used for articulating different levels of achievement (leading to different grades). In both cases it is necessary that they determine the expected level of performance (for example, the level of autonomy with which the learner carries out the tasks concerned).

Example of describing assessment methods:

ECVET Asset project⁶ – agreement on assessment for unit Vehicle stability management system

Moment of assessment: at the end of the training preparing for Unit 1

Time limit: 2h30

Method of assessment: Practical assessment in a real situation

Objective:

Material necessary:

⁶ For more examples of how assessment can be described see: <http://www.ecvet-projects.eu/ToolBox/ToolBoxList.aspx?id=19&type=1>

<p>Establish a diagnostic on a vehicle stability management system using the appropriate information and testing methods, and repair it.</p> <p>Context:</p> <p>During the diagnostic, the diagnostic tool may be used to take parameter readings or actuator test readings (but excluding faults reading)</p> <p>The documents provided must be exhaustive allowing the student to do a thorough research of information</p>	<ul style="list-style-type: none"> - Written information about the problem - A vehicle presenting a malfunction on the vehicle stability management system <p>The malfunction is plausible and allows only a limited number of hypotheses to be given and values to be taken</p> <ul style="list-style-type: none"> - A job sheet - All useful technical documents relative to the vehicle - Equipped work station - Testing equipment (connector, specific terminal block...) - Oscilloscope - Multimeter - Diagnostic tool
<p>There are other ways to stimulate trust in the assessment that takes place abroad. Several ECVET pilot projects have decided that in the first set of mobility exchanges learners' assessment will be attended by a teacher from the home institution:</p> <ul style="list-style-type: none"> - For example, in the MOTO project during the mobility between Finland and Iceland the Finish learners were assessed as follows: students self-assessment (which is a compulsory aspect of learners' assessment in Finland), assessment by the teacher from the host VET institution and the contact person within the enterprise who received the learner. A teacher from the home institution (Finland) participated in this process as an observer. 	

6 DOCUMENTATION OF ASSESSMENT RESULTS

Recommendation:

Documentation of the assessment results is essential for the validation and recognition of learning outcomes acquired abroad.

Reflect on the form in which you will communicate the results of the assessment to the home institution.

Explanation/further information:

The recognition of learning outcomes acquired abroad relies on documentation of the fact that the learning outcomes have been successfully achieved, as verified in the assessment.

Consequently the assessment should result in a documented record of what the learner has achieved supporting the judgement that he or she meets (or does not meet) the expected requirements (as expressed in terms of learning outcomes). This documentation makes the achievement of learning outcomes visible to those who will validate and recognise learners' credit. Consequently it is necessary to make sure that the documents – such as the personal transcript – provide sufficient information and make visible the achieved learning outcomes.

Assessment grids and short statements from assessors can serve this purpose. It is important to make sure that such grids or templates are easy to complete (use for example tick boxes) for the assessors.

When different assessment procedures and grading systems are used, a translation into the national system might be required. This information can also be included in the personal transcript.

Examples:

The **AEROVET** project envisages that the transcript of record for each learner contains a statement regarding the level of autonomy with which the learner carries out the tasks concerned. It is proposed to distinguish between these four levels of achievement:

- The learner carried out the task under instruction
- The learner carried out the task under surveillance
- The learner carried out the task independently

Other projects use also ways to describe levels of achievement/performance during the assessment of learners abroad:

- The project ASSET (see example cited earlier)
- The project Be-TWIN refers to the levels of mastering tasks described in the terms of learning outcomes.

The project CAPE-SV reflects on the documents that are necessary for learners to provide evidence about the learning outcomes they have achieved. The project works in the context of qualifications in the sector of performance arts but mainly regarding technical or administrative staff. In the first stages of their work the partners were not thinking in terms of agreeing organised mobility but how to support transparency of learners' learning outcomes when they are mobile (outside agree mobility). The partners agreed that there was a need for some evidence of individuals' learning outcomes that could take the form of a portfolio which would contain, for example, evidence about the lighting the design the person has put in place, or evidence about costumes they have designed, etc.

7 QUALITY ASSURANCE OF ASSESSMENT

Recommendation:

Quality assured assessment procedures facilitate the establishment of mutual trust – in particular at vertical level (between providers and competent authorities at higher levels).

Explanation/further information:

The pilot projects considered that often the problem of mutual trust is not really an issue between the VET providers directly but it is more often a problem when competent authorities that are not directly involved in organising the mobility (receiving, sending out and assessing learners) are involved in either of the ECVET processes need for credit transfer and accumulation. Mutual trust between providers is often established after exchanges and field visits. However, in order to establish trust between the competent authorities at a higher level it is often important to ensure that documentation is provided and that aspects such as quality assurance of assessment abroad are described.

In particular when different methods and approaches are used it is necessary to be clear about how the quality of the assessment procedure is ensured in order to facilitate the recognition of learning outcomes acquired and assessed abroad.

Examples measures through which the quality of the assessment process can be ensured are:

- Use jointly defined quality standards for assessment (this is for example the approach followed by the project RECOMFOR);
- When setting up the agreement the two organisations (host and home), can carry out the assessment together to create trust in the procedures used in the host country (this is for example the approach followed by the project ASSET)
- Also when setting up the partnership preparatory visits to observe the assessments methods applied at the hosting institution can be organised;

Means such as the use of assessment grids or templates where assessors describe the assessment and the performance of the learner are also a means to ensure trust in the assessment abroad. Such documentation should be clear and easy to complete.