

CompAssess project - Assessment of student competences with emphasis on the development of competences

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WP Leader: **Sociedade Portuguesa de Inovação (SPI)**

Output 5 - Best Practices Assessment Report - Evaluating its impact

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Introduction

The Bruges Communiqué on enhanced European Cooperation in Vocational Education and Training (2011-2020) refers to the need that Vocational Education and Training (VET) provides learners with both specific vocational competences and broader key competences, including transversal competences, that enable them to follow further education and training (within VET or in higher education). The knowledge, skills and competences which people acquire in VET should enable them to manage their career and to play an active role in society. According to CEDEFOP (European Centre for the Development of Vocational Training), competence is the ability to apply learning outcomes adequately in a defined context (education, work, personal or professional development).

Currently, the main focus is in the implementation of “transversal” competences to training systems in order to complement the technical skills; nevertheless, not direct approach has been done to the “assessment process” of such competences.

The CompAssess project aims firstly to the establishment of a European network integrated by recognized organizations that already count with solid basis in this field, in order to share best practice experiences in the assessment of transversal competences; secondly, the identification of the best practice cases in order to proposed assessment methodologies or tools able to be implemented at European level in the VET system; thirdly, the development of implementation and assessment plans; and finally, the presentation of new proposals and recommendations about methodologies and tools for competence assessment to education authorities to promote their implementation in the European VET System.

The universities, VET providers and innovation centres participating in the CompAssess project have made important achievements in this area; nevertheless, the most important is to combine such achievements to develop innovative and common approaches and methodologies for the creation of a European Assessment System of Transversal Competences. This will be achieved through the consolidation of the network proposed by this project that will work in the development of such system.

The CompAssess project foresees two main procedures for assessment of the project intellectual outputs:

- a) **Internal evaluation** - The project outcomes will be firstly evaluated by SPI during the implementation and assessment of transversal competences of each participating organization that will provide feedback and critical comments in order to adapt the methodologies to the needs of the trainers and trainees.

- b) **External evaluation** - The project intellectual outputs will also be reviewed by national authorities of the VET system in the participating countries. The methodologies and/or tools proposed by the project will count with the support of such authorities in order to a further promotion at EU level.

The expected impact at national and European level is to provide the national and European VET systems valid methodologies and/or tools for the assessment of transversal competences that are feasible to implement in training organizations that are in accordance with EU policies and contribute to the EU Strategy 2020 in the field of education.

This report includes the best practices on assessment, evaluating its impact. All partners and participants of the testing have provided information and feedback that was included in this report.

Open Framework

The Open Framework, developed within CompAssess, on the assessment of transversal competences with emphasis on the development of competences, encompasses 7 Transversal Competences (TC), defined on the basis of literature, best practices and other academic endeavours. Each competence is followed by a rubric, which serves for the measuring purpose. The rubrics were originally developed and tested in the context of the VALUE (Valid Assessment of Learning in Undergraduate Education) project, as part of the initiative known as AAC&U's Liberal Education and America's Promise (LEAP).

The CompAssess Open Framework, together with the rubrics that it contains, are intended to function as broad, institutional-level, "meta" instruments for evaluation. Each institution should adapt the various criteria, parameters and performance indicators to the purposes and language of specific subjects. Together with learning programmes, or even single assessment tasks, these will prove essential to a successful use of the rubrics at a classroom or disciplinary level. Seeing as the rubrics are not anchored to any subject, learning programme, or specific assessment task, the Open Framework remains fundamentally conceived as a non-binding instrument of support for VET staff. Nevertheless, this comprehensive repository of parameters and indicators suited for performance observation could be the starting point for VET staff who intend to integrate/adopt/follow the Transversal Competences assessment during the course of study or within a single teaching module. Providing an ample range of examples and practical advice, classified and sub-divided by transversal competence, the CompAssess Open Framework constitutes a valuable source of technical information that VET teachers and practitioners may tap into for improving their already existing assessment methods and schemes.

A framework for the competence assessment will be defined "open", if:

- It is general enough and not specific as it should be applied and adapted to different context/nation/type of school;
- It identifies an assessment method which should be viable and adaptable in different context/nation/type of school.

This framework can be used by everyone that has to work and study the topics of Transversal Competence and their assessment. More specifically, the project CompAssess focused on didactic schools or institutions, VET centres, teachers and students.

Methodology

The impact of the CompAssess project has been measured in accordance to the validation of the assessment tools/methodologies by the end users, and by the implementation at VET providers. This has been done by Tangram (best practices assessment and implementation) and SPI (best practices impact) with methodological collaboration of Universities (Aalborg University, Mondragon University and Bolzano University) that developed the Open Framework. Trainers and trainees from VET Providers (including the partners Tknika, EUC-SYD and Northern Regional College) have participated giving information/feedback about their experience.

The information on this report is based on the information collected from the Evaluation Questionnaires (Annex I). The questionnaires were aimed at trainers and trainees from the partner institutions that have tested the CompAssess Open Framework for transversal competences.

The results obtained concerning the pilot tools and methodologies implemented in the VET organizations were discussed in the workshop in Porto, Portugal in May 2016. The partners validated the results and agreed on the necessary adjustments for the final definition of the tools and methodologies for competence assessment at EU level. This was done together with WP3 and WP4.

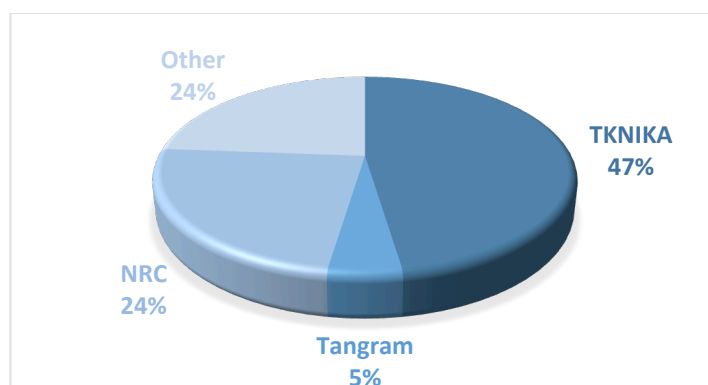
Impact assessment results

SPI has received 39 responses from 8 VET centres located in Spain (Basque Country), Italy, Northern Ireland and Denmark.

EUC SYD (the VET centre partner in Denmark) has reported the results of its implementation test with a different questionnaire (Annex II), adapted to the Danish context. The results presented below in the graphics (22 respondents) do not include EUC-SYD (17 respondents) and will be analyzed separately.

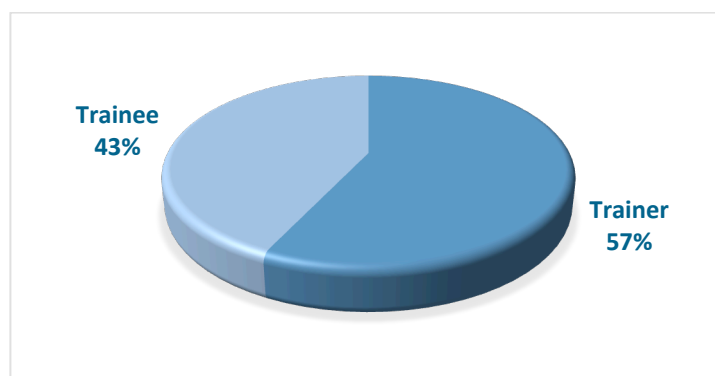
The distribution of the 8 VET centres that have replied is shown in the figure below. The institutions referred in “other” include MGEP, La Salle Berrozpe Andoain, Otxarkoaga Centro Formativo, CIFP Miguel Altuna and Maristak (all from Spain).

Figure 1 - Institutions



The distribution between trainees and trainers is balanced, but the replies from trainers were higher (57%) than the ones from trainees (43%).

Figure 2 – Role



The majority of respondents used group presentations to assess the CompAssess Open Framework, followed by the used of an application called SET Tool (where two of the seven competences of the Open Framework, teamwork and problem solving, had been previously uploaded), direct feedback and co-evaluation. A small number of respondents used also the autonomous method, problem based learning/challenge based learning and the marshmallow challenge. It is important to highlight that some respondents used more than one method to assess the Open Framework (hence the total number higher than 22).

Figure 3 – Method used to assess the Open Framework

Methods	Number of persons
Group presentation	8
SET Tool (Teamwork and problem solving)	5
Direct feedback	4
Co-evaluation	4
Autonomous method	2
Problem Based Learning (PBL) or Challenge Based Learning	1
Marshmallow challenge ¹	1

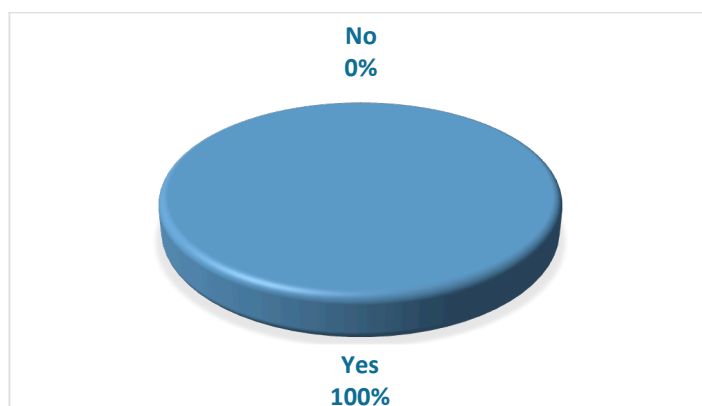
¹The marshmallow challenge consists in building a tower with one marshmallow, spaghetti, twine and tape.

The majority of respondents considered that the methods above were the most appropriate to assess the competences. This reflects the fact that the respondents used methods they are already familiar with, adapted to their daily tasks and needs.

Some respondents highlighted some of their choices:

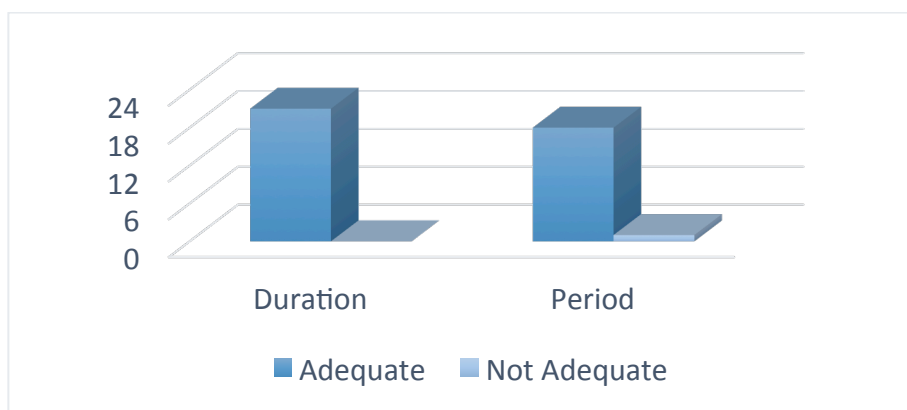
- Problem Based Learning is well adapted to learn both technical and transversal competences.
- The group presentation was part of the existing curriculum; by using the Open Framework the trainers were able to integrate this assessment into class activities with minimum disruption.
- The rubrics and the tool facilitate us the implementation of competences-based learning and assessment.
- Without ICT tools it would be very difficult to assess professional competences.
- The CompAssess Open Framework is a very interesting tool in order to assess the competences, in particular transversal competences. The framework allows to be applied with different methods (game, projects, etc.) and in different situations and context. This means, the trainer / teacher has to plan and develop his own specific framework.

Figure 4– Appropriateness of methods used to assess the competences



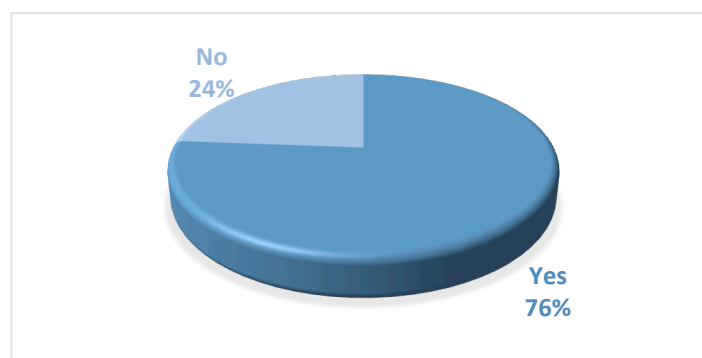
Both the duration and the period of the assessment were seen as adequate by the majority of the respondents. Only 1 respondent thought that the period of the assessment was not adequate.

Figure 4 – Timing of the Assessment



76% of the respondents already used transversal competences on a daily basis before the assessment.

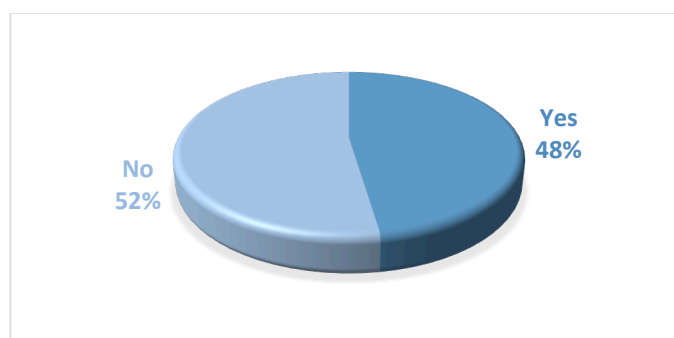
Figure 5 - Application of competences on a daily basis before the assessment



52% of the respondents did not change the use of transversal competences after the assessment. Some highlights by the respondents:

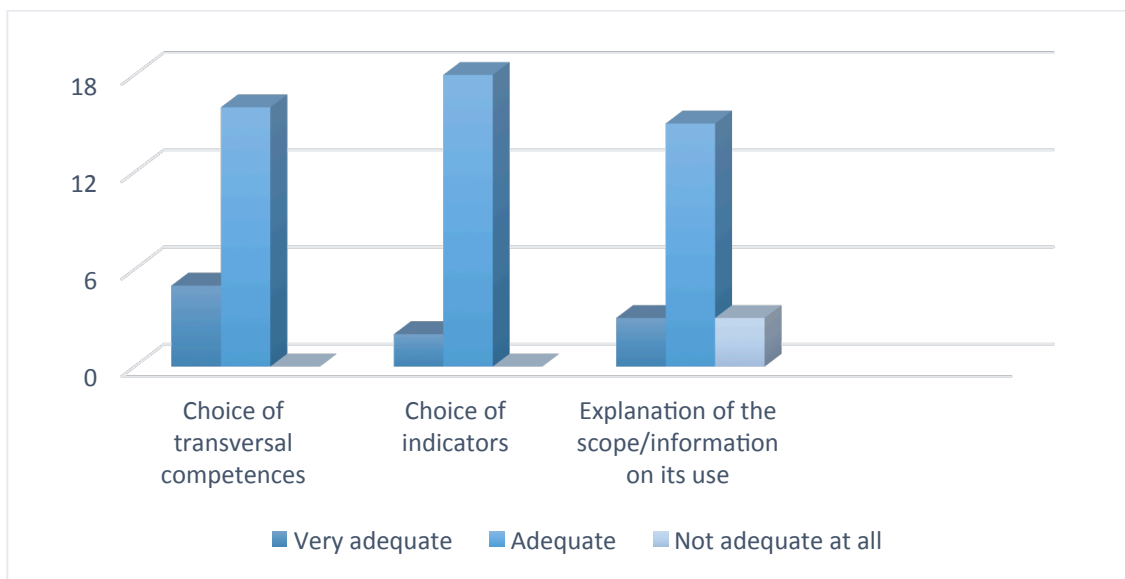
- This open framework can help to design and plan what competences can be developed and assessed in each PBL.
- This framework can act as a benchmark and a set of standards to help the assessment of student work.
- A similar method is already in use.
- The open framework is more structured and flexible compared to the other one used (unofficial for the transversal competences).

Figure 6 – Changes in using the competences after assessment



16 respondents felt that the choice of transversal competences was adequate. 19 respondents considered the choice of indicators adequate. Lastly, 15 respondents thought that the explanation of the scope of the framework on its use was also adequate.

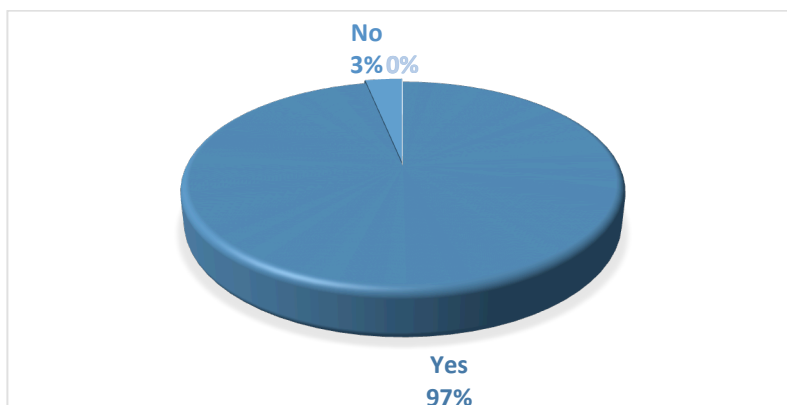
Figure 7 – Assessment on specific aspects



97% of the respondents considered the assessment very relevant. Some highlights by the respondents:

- The competences were selected using a previous PBL experience. This is why in this new experience, selected competences matched quite well.
- The assessment integrated well with the existing curriculum.
- It did not take time away from class.
- It is good to deep into the knowledge of competences assessment and its complexities.
- It is good to know that competences can be divided into different parameters at the time of evaluating them, and this makes our work on this method easier.
- It is positive to demonstrate that it is possible to transfer and evaluate professional competences.
- It is relevant because you can assess the competences with different methods (observation, examination and self-assessment). This gives you the chance to better understand different aspects between the student experience/learning, the teacher methods and the teaching standards applied.

Figure 8 – Relevance of the assessment



Results from EUC- SYD

17 respondents from EUC-SYD replied to this questionnaire, from which 6 were trainers and 11 were trainees.

The assessment was done using the Danish model with 8 fields. The majority of respondents (16) felt that the method used was appropriate.

15 respondents and 14 respondents, respectively, felt that the duration and period of the assessment were adequate.

15 respondents already used the transversal competences on a daily basis. This might explain why 12 respondents did not change the way how they used these competences after the assessment.

From the 17 respondents, the majority considered adequate the following:

- Choice of transversal competences – 11 respondents
- Choice of indicators – 10 respondents
- Explanation of the scope on its use – 12 respondents

15 respondents felt that the assessment was relevant for the training.

Some reflections based on the feedback collected are reported below:

- We need to define the level of competence that the individual student should achieve at the current state of his/her training. The desired level is not necessarily Expert level for a student at a beginner's level. (NOTE: actually the goal field is defined in the framework for each parameter).
- The language used in the tool should match the target group.

- Some of the transversal competences (eg. citizenship) is difficult to understand in a Danish VET context.
- We are surprised (positively) that the students are so reflected on the value and importance of transversal competences.
- It could be interesting to question a bit deeper as to see if they really understand the meaning of these competences and if they can use this in a professional context (work or education).
- Evaluation of the transversal competences is very difficult and it is always a subjective matter.
- The transversal competences are difficult to define and describe, so that we have a common understanding.
- Grading – is performing on expert level better than performing on routine level?

General suggestions for improvement

- Simplifying and adapting the language to the communication target.
- Rating should start from “0” and/or a more negative value.
- Elaborating automatically the results and in a “visual” way (graphics, shapes, etc.).

General critical facts faced in the application of the methodology proposed

- Complexity and experience with the tool.

General positive aspects in the application of the methodology proposed

- Competence-based learning and assessment is a good method to implement at VET schools.
- Similar to an existing used model.
- Guidelines.
- Visual and automatic colours for the ratings.

Considerations

Taking all the feedbacks into consideration the first version of the CompAssess Open Framework has given a positive first impression, even though some improvements are needed. A brief analysis is reported below.

Positive aspects

- New and innovative tool
- Flexible
- Possible adaptation of content to the context
- Guidelines
- Visual progression of results

Negative aspects

- Inadequate language in some points
- Complex and time-consuming
- Development of rates and criteria
- Need of an initial agreement with the students

Since CompAssess Open Framework is an “open” tool, it needs to be “general”, although it has to be “precise” enough to be adapted to different context and specification. These properties together determined “complexity”. This complexity can be managed and reduced, but not completely removed.

The content and the definitions in the first version of the tool have not been reviewed before the implementation, thus, they may sound “theoretic”. Language, visual presentation of all results, rates definitions are the expected responses from a completely new model for the competence assessment in VET Centres.

On the other hand, the most important aspects are:

- The CompAssess Open Framework has been agreed positively for the transversal competences assessment by the executors of the implementations and it shows a significant potential;
- The teachers and the students should agree on the framework and train with the model in order to make it more effective;
- As an “open” tool, it needs a “custom design” by the VET users. This design should count the identification of the relevant competence and parameters in the rubrics, the

translation of these in an adequate language to the specific VET environment and the target (for example: students and the self-assessment)

- Guidelines as supporting tool can make the complexity of the open framework clearer.