

Comparing qualifications for reliable recognition 2 – QUATREC 2



Recommendations for the formulation and comparison of learning outcomes in terms of recognition

2022

Co-funded by
the European Union



This study was conducted by:

- Academic Information Centre – Latvian ENIC/NARIC (AIC, project coordinator)
- National Centre for Information and Documentation – Bulgarian ENIC/NARIC (NACID)
- Centre for Quality Assessment in Higher Education – Lithuanian ENIC/NARIC (SKVC)
- National Centre for Recognition and Equivalence of Diplomas – Romanian ENIC/NARIC (CNRED)
- National Information Center for Academic Recognition and Mobility – Armenian ENIC (ArmEnic)
- UK ENIC – United Kingdom
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These recommendations were prepared with the support of the Erasmus+ NARIC project No 619629-EPP-1-2020-1-LV-EPPKA3-NARIC “Comparing qualifications for reliable recognition 2 – QUATREC 2” (1.10.2020 – 30.09.2022).

The opinions expressed are those of the author(s) only and should not be considered as representative of the European Commission’s official position.

Introduction

The concept of this project stems from the conclusions gained in the Erasmus+ project “Comparing qualifications for reliable recognition – QUATREC” (2018-2020), which urged the use of learning outcomes in credential evaluation in the context of qualifications frameworks. The QUATREC 2 project proposes to take more active measures to increase the knowledge and strengthen the role of learning outcomes in the recognition of qualifications by promoting dialogue between higher education institutions, employers and ENIC/NARIC¹ offices. Furthermore, as a result of the cooperation among all stakeholders, the project working group proposes a set of recommendations to facilitate the use of learning outcomes in recognition.

Aim of the project – to facilitate the efficient use of learning outcomes in credential evaluation among higher education institutions and employers to support a fair recognition.

Main objective – to elaborate and pilot recommendations for the use of learning outcomes in credential evaluation on the basis of a desk study and the previous QUATREC project conclusions and recommendations².

These recommendations were elaborated on the basis of several **sources**:

- Country reports,
- Other publicly available examples of good practice,
- Comparative study report,
- Results and conclusions of QUATREC project (2018-2020),
- Discussions between QUATREC 2 project working group,
- Discussions with the stakeholders during the events arranged in terms of this project³.

The **purpose** of recommendations is to provide guidance to the stakeholders when their daily activities require either the formulation or analysis of learning outcomes to conduct credential evaluation in a broader sense of this term.

The recommendations are divided in two parts:

- Formulation of learning outcomes in terms of recognition,
- Comparison of learning outcomes.

The main target groups of the recommendations are higher education institutions, employers, ENIC/NARIC offices and other experts dealing with credential evaluation. Although the first part of the recommendations is more intended for providers of higher education qualifications, this document strongly relies on the context of credential evaluation.

The QUATREC 2 project working group is aware that learning outcomes are not thoroughly analysed and compared in each case of credential evaluation carried out by the ENIC/NARIC offices. However, learning outcomes become an increasingly important aspect of a qualification to consider in situations when an applicant has no or some of documentation or when labour market-oriented evaluation of specific qualifications is necessary. Therefore, these recommendations may be referred to in particular situations and used depending on the purpose of recognition, and on available time and resources.

1 ENIC – European Network of National Information Centres on academic recognition and mobility; NARIC – National Academic Recognition Information Centres.
2 The study report of QUATREC project: https://aic.lv/portal/content/files/QUATREC_report.pdf.
3 The comparative study report, country reports and presentations from the main events are available on the project website: <https://aic.lv/en/par-aic/projects/quatrec-2>.

Part I. Recommendations for the formulation of learning outcomes in terms of recognition

As the result of the Country Report analysis and desk study, several recommendations for the formulation of learning outcomes were elaborated. The Country Reports were prepared by the QUATREC 2 project partners to outline the situation in their countries. These recommendations are intended for providers who design higher education qualifications and their learning outcomes.

For learning outcomes to be comparable, the following principles should be observed:

- Learning outcomes have to be clear, concise, observable and measurable; they need to be specific when expressed in course/module descriptions;
- Use action verbs (preferably only one verb per sentence) and begin with the verb describing the ability, describing the action performed by the student;
- Formulate learning outcomes from the perspective of learner, not teacher (learning outcomes are not teaching objectives);
- Formulate learning outcomes in proportion to the amount of credits of a study course/module;
- Ensure that programme design and delivery, as well as the assessment provides learners with the opportunity to achieve and demonstrate the intended learning outcomes;
- Be specific, where appropriate, concerning access to occupations for which the programme is best suited, especially in cases where a professional qualification has been awarded and is due to be recognised;
- Cover all categories/dimensions of learning outcomes (e.g. knowledge, skills, functions and competences);
- When writing learning outcomes, try including verbs from various levels (e.g. choose verbs from higher levels to foster learners' personal and academic development) and domains (to ensure development of variety knowledge and skills) of taxonomy taking into account learners' abilities and previous academic experience.

Part II. Recommendations for the comparison of learning outcomes

The comparison of learning outcomes requires high level analytical skills, although some attempts have been made to make this exercise automatic using machine reading programmes. The QUATREC 2 project working group elaborated several recommendations for stakeholders (higher education institutions, employers and ENIC/NARIC offices) involved in credential evaluation willing to establish the value of a qualification through the analysis of learning outcomes. The credential evaluation in this document should be regarded in a broad context, i.e. any exercise or situation when stakeholders have to explore the content of a qualification or several qualifications.

The comparison of learning outcomes involves several steps that can be used depending on the purpose of the analysis and other aspects, e.g. available time and resources. Hence, some steps can be omitted or adapted when necessary, but the QUATREC 2 project team wished to outline all the relevant exercises for the comparison of learning outcomes.

Steps for the comparison of learning outcomes

1. Gathering and organising information about the comparable qualifications. Please refer to the fiche adapted from the QUATREC project (see Annex). The fiches collect data on the following two main aspects:

- a. Contextual information – data concerning the qualification that provide explanation to the format and content of learning outcomes;
- b. Learning outcomes – exact text as formulated by the provider of qualifications.

Purpose of this step – to summarise all the relevant data about the qualification(s) in order to conduct evidence based analysis and objective comparison.

2. Quantitative analysis of learning outcomes focuses on:

- a. Number of statements of learning outcomes – background information to clarify the layout, general structure and format of learning outcomes impacting the content of the statements;
- b. Length and extent of detail of learning outcomes – additional information about learning outcomes to explain the content and structure of the statements.

Purpose of this step – to conduct initial analysis of the text and provide ground data for the further comparison of learning outcomes.

3. Qualitative or content analysis of learning outcomes refers to:

- a. Grouping learning outcomes by: 1) generic, i.e. referring to transversal, soft or social knowledge, skills or competences; 2) specific, i.e. those learning outcomes that could be related to the particular field or subject of qualifications.
- b. Grouping learning outcomes by topics: 1) list of keywords used in learning outcomes statements; 2) list of eight key competences.

Purpose of this step – to ensure objective grouping of information and conduct detailed and content-related comparison of learning outcomes according to certain criteria.

4. Reading and comparing by statement or phrase. First, a list of criteria or questions should be set for the analysis considering the context of comparison. The QUATREC 2 project has adapted seven questions for this exercise, yet this list may be further improved. Then the following questions could be considered about each statement of learning outcomes (mark with “yes” or “no”):⁴:

- a. The statement presents the qualification from the perspective of the learner and what they are expected to know, be able to do and understand.
- b. The statement uses action verbs to signal the level of complexity of expected learning.
- c. Action verbs may refer to a taxonomy (e.g., EQF, education objective taxonomy) or another reference point (which?).
- d. The statement includes, explicit or implicit, reference to the levels of the NQF and/or the EQF or EHEA-QF cycles.
- e. The statement indicates the objective and scope of the expected learning outcomes, whether the description captures the main orientation of the qualification and the depth/breadth of the expected accomplishment.
- f. The statement uses domains as defined by NQFs/EQF or EHEA-QF.
- g. The statement clarifies the occupational and/or social and/or educational context in which the qualification operates.

Purpose of this step – to conduct an in-depth analysis and evaluation of learning outcomes following a certain set of criteria in order to ensure consistent comparison of learning outcomes.

Tools supporting quantitative analysis

The quantitative analysis may be considered as an initial or preparatory exercise for the comparison of learning outcomes, which ensures objective evidence for the further analysis of learning outcomes.

- New digital technologies can be used for the automated comparison of qualifications. For example, the European Centre for the Development of Vocational Training (Cedefop)

4 Adopted from: Bonte, S., Dillen, V., Kinta, G., Lubică, G., Noesen, J., Pathóová, I., Ramina, B., Rutkowska, S., Trawińska-Konador, K., Wang, A. (2021). Report of the EQF Advisory Group project group on Horizontal comparison of qualifications. Brussels: Directorate-General for Employment, Social Affairs and Inclusion (unpublished).

developed automated processes in order to compare qualifications. Firstly, a prototype was developed from scratch by building upon these tools – using the insights gained from examples of their application, seen on relevant discussion forums and insights from expert consultations – by tailoring them to fit the proposed workflow (through trial and error), while simultaneously identifying and addressing / resolving issues as they were encountered. After developing a feasible prototype for (parts of) the workflow, with some adaptations, a testing exercise was performed – using the (full) European Skills/Competences, Qualifications and Occupations (ESCO) knowledge, skills and competences (KSC) skills pillar and the learning outcomes descriptions included in the Dutch national documentation for the qualification of ICT service technician – in order to analyse to what extent the texts included in these descriptions could be matched to the right skills in ESCO. This process could be further explored since currently there are issues and limitations⁵.

- A free software AntConc toolkit developed by Dr Laurence Anthony⁶ – word list tool (frequency of words in the statements of learning outcomes). AntConc is a multiplatform tool for corpus linguistic research, for comparing and analysing texts. AntConc comprises in total seven tools of which two tools could be used for the comparison of qualifications – word list tool and concordance tool. The word list tool counts all the words in the selected text and presents them in an ordered list. The concordance tool can be used for the qualitative analysis which shows search results in the context format displaying how the words and phrases are commonly used in the corpus of text. Using the AntConc toolkit allows to make conclusions about how concepts are commonly used in the learning outcomes, identifying the common expressions and frequency of the most used words and compare them with the keyword list.

Tools supporting qualitative analysis

Although qualitative analysis strongly relies on human skills, some tools were identified that may be used to support objective and consistent comparison of learning outcomes.

- The software AntConc toolkit⁷ – concordance tool (displaying how the words and phrases are commonly used in the learning outcomes).
- Online World Reference Level (WRL) tool⁸ developed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) – allows users to create the profiles of the sets of learning outcomes. The tool provides the possibility to analyse the learning outcomes of qualifications according to 11 capability criteria. The WRL tool creates the profiles of the sets of learning outcomes using newly developed definitions of competences, capacities and levels.
- Cedefop used HealthCareEurope (HCEU) or Vocational Qualification Transfer System (VQTS) Competence Matrix in order to compare qualifications. The VQTS model was developed and further applied in a series of EU funded projects. VQTS-based Competence Matrices are only available for selected occupational fields and they are usually not updated. However, the rationality for structuring the HCEU/VQTS Competence Matrix is generally logical and understandable, the descriptions are generally short and clear and are based on the holistic descriptors of competences related to work processes.⁹

5 Cedefop (2019). Comparing Vocational Education and Training Qualifications: towards a European Comparative Methodology. Draft Final Report. https://www.cedefop.europa.eu/files/exploring_gathering_and_analysing_national_qualifications_data_-_comparing_vet_qualifications_wa_2_draft_final_report_october_2019_v.03.pdf

6 Anthony, L. (2019). Website. <https://www.laurenceanthony.net>.

7 AntConc toolkit. Website: <https://www.laurenceanthony.net/software/antconc>.

8 The link to the online WRL tool not functional at the time of publication (September 2022). More information about the tool: UNESCO (2019). World Reference Levels. <https://unesdoc.unesco.org/ark:/48223/pf0000371395>.

9 Project "HealthCareEurope": <https://www.project-hceu.eu/index.php?id=100>.

Annex. Template of the fiche

Qualification:

Level of NQF/EQF:

Country	
Full title of qualification (EN)	
Full title of qualification (national lng)	
Access requirements	
Admission requirements	
Workload (amount of ECTS credits)	
Mode of study (if relevant)	
Profile (academic, professional) <i>If relevant, add contextual information</i>	
Access to further studies	
Professional rights (if exists)	
Awarding of qualification	
➤ Requirements for graduation	
➤ Awarding body: <ul style="list-style-type: none"> • Name of institution • Type of institution (for example, higher education institution) 	
➤ Procedure (if relevant)	
➤ Diploma Supplement (according to model developed by the European Commission, Council of Europe and UNESCO/CEPES) is awarded (Yes/No)	
➤ Other documents issued (Yes/No) <ul style="list-style-type: none"> • If yes what title and type 	

External quality assurance	
<ul style="list-style-type: none"> ➤ Type of accreditation (e.g. programme, field, institution) <i>Please mention all types of accreditation necessary for this qualification to be state recognised in the country</i> 	
<ul style="list-style-type: none"> ➤ Title of quality assurance body (national, other) 	
Learning outcomes	
<ul style="list-style-type: none"> ➤ Visibility of learning outcomes (e.g. Diploma Supplement, website) <i>Please add links if available</i> 	
<ul style="list-style-type: none"> ➤ Formulation of learning outcomes (who defines, who approves, ownership) 	
<ul style="list-style-type: none"> ➤ Learning outcomes are subject to quality assurance (Yes/No) 	
<ul style="list-style-type: none"> ➤ Terminology of learning outcomes (e.g. knowledge, skills, competences, and definitions) 	
Generic learning outcomes (e.g. national, sectoral)	
Learning outcomes (as defined by qualification provider or awarding body)	
Any other relevant information regarding the qualification	



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