



CEDEFOP

European Centre for the Development
of Vocational Training



Using ESCO

- Cedefop study comparing 10 VET qualifications using ESCO
- Cedefop pilot using ESCO for big data analysis of job vacancies

Jens Bjornavold

ESCO Maintenance Committee,

December 2016



Cedefop study 1: The role of learning outcomes in supporting dialogue between education and training and the labour market (2015-17)

Key objectives

- to better understand how vocational qualifications are being defined, reviewed and renewed
- to develop a methodology for the comparison of vocational qualifications (content, scope and intentions)



Bricklayer/mason

Healthcare assistant

Hotel assistant/receptionist

ICT service technician

Dental assistant

Farm management professional

Logistics technician

Machine operator

Plumber (cooling and heating)

Sales assistant

10 EU countries: Austria, Bulgaria, Denmark, Finland, France, Ireland, Lithuania, the Netherlands, Spain, UK-EN

3 Candidate countries to the EU (in cooperation with ETF): Albania, FYROM and Serbia

13 countries outside Europe (in cooperation with UNESCO): Philippines, Korea, Samoa, New Zealand, United Arab Emirates, South Africa, Zambia, Namibia, Botswana, Barbados, Costa Rica, Mauritius, Tunisia



Methodology

An analysis of the learning outcomes based documents underpinning qualifications in the 26 countries (standards, curricula and programme descriptions)

With a reference to

- ESCO terminology on job and occupational specific skills and competences
- ESCO terminology on transversal skills and competences

Aware of the limitations of ESCO v0; the study can be seen as a pilot testing the overall usefulness of the terminology for comparative purposes



Positive experiences

Similar comparisons have been done previously (VET-LSA study 2009) using O*Net.

ESCO adds value by offering

- Higher level of granularity
- A multilingual terminology



Remaining challenges

The role of the transversal skills and competence terminology needs to be clarified and further developed

- Lacking clarity as regards the relationship between the job/occupation specific and transversal skills and competence terminology
- The limited contextualisation of these terms
- The ICT-component added to the list creates a bias



Cedefop study 2: Real-time labour market information on skill requirements: feasibility study and working prototype (2015-16)

Key objectives

- To test the feasibility of real-time data collection from web-portals in 5 countries (Ireland, UK, Italy, Germany and the Czech Republic)
- To explore technical (and ethical) challenges involved in “web-crawling/web-scraping”
- To use the ESCO terminology as a reference point for extracting and classifying skills requested through the job-vacancies
- To develop a working prototype for upscaling

Outcomes

- A total of 4.228.488 job vacancies were 'scraped' between June and September 2015
- Following duplicate removal, 2.980.546 remained
- Data have been delivered on
 - Occupation (ISCO)
 - Geographical unit
 - Sector (NACE)
 - Type of contract
 - Working hours
 - Skills required according to ESCO
 - Skills required not listed by ESCO



Experiences

- ESCO proved very useful for both the extraction and the classification of skills requested by the job vacancies
- Gives an insight into dominating and emerging skills needs in occupations and sectors
- Skills not identified by ESCO have been registered by the prototype and add value by
 - Pointing to new and emerging skills
 - Allowing for updates of ESCO
- (Not surprisingly) ESCO v0 proved somewhat problematic as regards translations of terms



Cedefop's use of ESCO - general conclusions

Both Cedefop-projects demonstrate the added value of ESCO

- For analysis and comparison of learning outcomes based qualifications
- For analysis of skills requirements by the labour market

Both Cedefop-projects will be taken forward and further developed, providing important feed back on the improvement and strengthening of ESCO. The relationship between the two projects will also be explored

Both Cedefop-projects point to challenges

- As regards the contextualisation and use of the transversal KSC.
- The quality of translations and their impact on applications.