The VITA Survey

IT based Assessment and Validation systems for Social, Personal and Organisational competence

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Additional to the exhaustive surveys and interviews among European educators of all educational sectors and employers on the relevance of SOPC for their work, their demand for Validation of SPOC and existing systems, a desktop research was carried out among partners to assess the existing landscape of IT based validation systems for SPOC.

All partners participated in the research but not everywhere it was possible to retrieve results on national level. Therefore the survey on hand is rather a rough overview to highlight the available tools against the question, if they are suitable to cover at least parts of the functionalities of validating SPOC. IT based competence validation, competency validation software, competency validation tool were key words used for the desktop research.

Exemplary tools were gathered, clustered and compiled in the tables below. These will be shortly summarised and discussed.

Assessment of SPOC	
Name of the tool	KODE® (Kompetenzdiagnostik und -entwicklung/diagnosis and development of competences)
URL	www.kompetenzprofil.at
Country	Austria
Who provides the tool?	VHS Linz (folk high school of Linz, Upper Austria)
Who are the users of the tool?	Anyone can use the tool on payment of a service fee.^ The tool is also used in the framework of dedicated competence workshops. Because compentence profiling is often offered in the framework of workshops for the Austrian Employment Services, many users are currently unemployed persons.
How is the tool accessed? (e.g. by the assessor or the assessed?)	unknown
Which IT services does the tool offer? (e.g. validation, certification, assessment)	Assessment and documentation, but no formal validation of competences.
What is the purpose of the tool?	The main goal is for the users to become aware of their abilities and to use them more consciously in planning their future career.
Which competences are validated	Personal and social competences, professional competences and technical skills
Which competence	No specification

dimensions are assessed?	
Which role does the tool play in relation to validation of prior learning?	It is a personal competence portfolio, thus an informal element of recognition of prior learning.
Technical specifications, interfaces to other validation systems	unknown

Assessment of SPOC	
Name of the tool	Competencies for Labour Market
URL	http://kompetence.rza.cz/www/index.php?id=11
Country	Czech Republic
Who provides the tool?	RPIC - ViP s.r.o.
Who are the users of the tool?	Young people
How is the tool accessed? (e.g. by the assessor or the assessed?)	online
Which IT services does the tool offer? (e.g. validation, certification, assessment)	Online self-assessment and analysis of test results
What is the purpose of the tool?	Support young people in assessing their key competences
Which competences are validated	Comeptencies for the labor market
Which competence dimensions are assessed?	The questions address the cognitive, active and attitudal dimension but don't explicitly name or separate them
Which role does the tool play in relation to validation of prior learning?	none
Technical specifications	unknown

Assessment of SPOC	
Name of the tool	VINTAGE - online tool for self eValuatIoN of key competences in adult AGE

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URL	http://vintage.euproject.org/services/Projects/project.cfm?ProjectID=257&GroupDesktop=0&from=not&Tab=Description
Country	Europe
Who provides the tool?	Vintage project consortium, tool not yet accessible
Who are the users of the tool?	Teachers, trainers, counsellors and practitioners working in NVAE; adult/elderly learners attending courses in NVAE
How is the tool accessed? (e.g. by the assessor or the assessed?)	Online
Which IT services does the tool offer? (e.g. validation, certification, assessment)	Self-assessment
What is the purpose of the tool?	Self-evaluation tool for key competences
Which competences are validated	Key competences
Which competence dimensions are assessed?	unknown
Which role does the tool play in relation to validation of prior learning?	unknown
Technical specifications	unknown
Documentation of SPOC	
Name of the tool	VAB e-portfolio
URL	www.vab-univ.eu
Country	Austria, international
Who provides the tool?	The tool was developed in the framework of the LdV-TOI project „VAB – Valuing experience beyond university". The tool is hosted on servers of the lead partner Université d'Evry Val d'Essone, France
Who are the users of the tool?	University students and their teachers who assess their experiences
How is the tool accessed?	The tool is first accessed by the assessed students who fill

(e.g. by the assessor or the assessed?)	in a comprehensive questionnaire for each of the experiences that they want to have assessed and the competences that were acquired through these experiences. The students then submit this portfolio and suggested competences to a university teacher who will assess the competences through the same tool.
Which IT services does the tool offer? (e.g. validation, certification, assessment)	validation of prior learning and outside-university activities for university students
What is the purpose of the tool?	Documents ECTS
Which competences are validated	Instrumental competences, Systemic competences, interpersonal competences (c.f. details in Annex)
Which competence dimensions are assessed?	The tool does not differentiate between competence dimensions, but allows a grading of each acquired competence on a 5-level scale: 1-assisted competence, 2-autonomous competence, 3-collaborative competence, 4-expert competence, 5-creative competence
Which role does the tool play in relation to validation of prior learning?	The tool can be used both as a stand-alone tool or as part of a larger process. Universities which accredit prior learning or informal learning activities of students outside the university (e.g. through work experience or volunteering)
Technical specifications, interfaces to other validation systems	The fully web-based tool was developed by staff of the Hellenic Open University and is based on the open-source content management software Drupal. A virtual assistant guides both students and trainers through the whole process.

Documentation of SPOC

Name of the tool	eProfilPASS
URL	www.eprofilpass.de
Country	Germany
Who provides the tool?	DIE - Deutsches Institut für Erwachsenenbildung – Leibniz-Zentrum für Lebenslanges Lernen e.V. (German Institute for Adult Education)
Who are the users of the tool?	Private persons who want to reflect on their vita and competences in order to become aware on own assets and for planning further steps.
How is the tool accessed?	By the assessed, the e-Profilpass is a self-assessment

(e.g. by the assessor or the assessed?)	instrument along guiding questions.
Which IT services does the tool offer? (e.g. validation, certification, assessment)	Assessment and documentation
What is the purpose of the tool?	It is a portfolio, which successive collection is supposed to help structure ones experiences and competences as data base for planning future steps. Supplementing (online) counselling offers are connected to the Profilpass.
Which competences are validated	Professional, personal, social and organisational competences
Which competence dimensions are assessed?	Knowledge and skills
Which role does the tool play in relation to validation of prior learning?	It is part of a larger context, as it helps providing and structuring biographical information to foster a self-reflection and awareness process. The Profilpass also exists in hardcopy in form of a folder. It is a preparing step to a real validation of prior learning.
Technical specifications, interfaces to other validation systems	unknown
Documentation of SPOC	
Name of the tool	Youthpass
URL	https://www.youthpass.eu/en/youthpass/
Country	Europe
Who provides the tool?	European commission
Who are the users of the tool?	Participants of Youth in action projects (European Voluntary Service, Youth Exchanges, Youth Initiatives, Youth Democracy projects, Training and Networking activities, and for Youth Policy projects)
How is the tool accessed? (e.g. by the assessor or the assessed?)	Online by the facilitators of the projects
Which IT services does the	Documentation and Validation

tool offer? (e.g. validation, certification, assessment)	
What is the purpose of the tool?	Document and validate participation in youth in action projects and competences acquired
Which competences are validated	Foreign languages, digital competence, learning to learn and social and civic competences
Which competence dimensions are assessed?	Knowledge, activity and attitudes can be described freely, not in predefined categories or dimensions
Which role does the tool play in relation to validation of prior learning?	None. It validates the learning within the YiA projects.
Technical specifications	None mentioned on websites
Documentation of SPOC	
Name of the tool	Landesnachweis NRW (National Evidence North-Rhine Westphalia)
URL	http://www.engagiert.in.nrw.de/aktuelles/meldungen/meldungen_be_ue_alt/F__reinander_Miteinander1/index.php
Country	North-Rhine Westphalia, Germany
Who provides the tool?	Ministry of Family, Youth, Culture and Sports supported by Employers and Business Associations in North Rhine-Westphalia
Who are the users of the tool?	Volunteers in the field of social affairs, environment and agriculture
How is the tool accessed? (e.g. by the assessor or the assessed?)	Via intermediate organisations authorised by the ministry. These organisations offer access and consultancy for the volunteers
Which IT services does the tool offer? (e.g. validation, certification, assessment)	Documentation and Certification
What is the purpose of the tool?	Commitment Proof North Rhine-Westphalia »Füreinander.Miteinander - Engaged in voluntary social work" documents and pays tribute to civic engagement in North Rhine-Westphalia. The commitment evidence proves the technical and social skills of civic volunteers and certifies these.
Which competences are	Commitment proof contains information about the

validated	sponsoring organization, the volunteers and their field of application, a general job description and a thanksgiving. At the request of the volunteers, the detection can be supplemented, for example, specific information on the activity and the specific personal achievements.
	These include the acquired key skills. These are, for example, team and communication skills, creativity and ability to abstract and specific performance and commercial knowledge. Also craftsmanship, educational and psychological skills or the organizational skills of volunteer assets to be listed in the proof of commitment.
Which competence dimensions are assessed?	Knowledge and Activity
Which role does the tool play in relation to validation of prior learning?	Its intention is to provide proof of prior learning in the informal setting of volunteering.
Technical specifications	unknown
Validation of professional competences	
Name of the tool	eCOTOOL
URL	www.competencetools.eu
Country	Europe
Who provides the tool?	University Duisburg-Essen and a transnational consortium, Project eCOTOOL
Who are the users of the tool?	VET institutes, certfication bodies, final beneficiaries
How is the tool accessed? (e.g. by the assessor or the assessed?)	By the VET organisations
Which IT services does the tool offer? (e.g. validation, certification, assessment)	It provides a framework in which the learning outcomes can be assigned to an EQF conform framework. Hence it serves validation purposes that lead to a formal certification
What is the purpose of the tool?	Supplement to EQF, ECTS, EUROPASS and others
Which competences are validated	Professional competences and learning outcomes for farmers in vineyards; tested in the agricultural sector
Which competence	Knowledge, skills

dimensions are assessed?	
Which role does the tool play in relation to validation of prior learning?	Eco tools as solution to make the EUROPASS interoperable amongst any given IT system (e.g. participants' databases, certification software etc. by describing the IT-interfaces.)
Technical specifications	It contains specifications as meta-information that serve the interoperability of the tool. Example: The tool can be used to describe learning outcomes that relate to certain EQF-levels in a certain profession, here for the piloted vineyard farmers.
	The (hidden, metatext) specifications lead to a correct transfer if they are sent to another institution. Through the standardised structure also other professions may use the tool to describe VET related competences and learning outcomes. The meta-text serve as hidden descriptors that lead the software to put the information (e.g. learning outcome at LEVEL3) to the right position.
Validation of professional competences	
Name of the tool	National Clinical Supervision Competency Resource – Validation Edition
URL	https://www.hwa.gov.au/work-programs/clinical-training-reform/clinical-supervision-support-program/competency-resource
Country	Australia
Who provides the tool?	Health workforce Australia
Who are the users of the tool?	
How is the tool accessed? (e.g. by the assessor or the assessed?)	By the learners as well as the providing institution
Which IT services does the tool offer? (e.g. validation, certification, assessment)	Validation and certification
What is the purpose of the tool?	The resource aims to support the continuation and further development of a high quality, sustainable clinical supervision workforce across all settings, to meet the current and future challenges of developing competent health practitioners for the Australian health system.

Which competences are validated	Professional competences for health care professions
Which competence dimensions are assessed?	Knowledge and Skills
Which role does the tool play in relation to validation of prior learning?	By validation and certification it supports the recognition of prior learning.
Technical specifications	unknown
Validation of professional competences	
Name of the tool	API Healthcare's competency testing
URL	http://apihealthcare.com/staffing-agency/competency-testing
Country	USA
Who provides the tool?	API Healthcare workforce management solutions
Who are the users of the tool?	Applicants for jobs in health care sector
How is the tool accessed? (e.g. by the assessor or the assessed?)	The tool is directly accessible to the users and provides a number of tests
Which IT services does the tool offer? (e.g. validation, certification, assessment)	e-learning, assessment and validation
What is the purpose of the tool?	API Healthcare provides more than 180 competency tests and skill assessments to ensure healthcare staffing agencies can quickly qualify and place healthcare professionals. We work closely with a clinical advisory board and a clinical review board comprised of real-world clinicians and practitioners who review and validate our competency testing and skill assessments
Which competences are validated	Relevant skills and competences of staff working in different health care positions, mostly professional competences but also SPOC
Which competence dimensions are assessed?	Skills and competences
Which role does the tool play in relation to validation of prior learning?	It is an assessment tool that helps to match applicants to the adequate job offers.

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Technical specifications	unknown
Validation of professional competences	
Name of the tool	ANCC - Nursing Skills Competency Program
URL	http://www.nursecredentialing.org/NursingSkillsCompetency Program
Country	USA
Who provides the tool?	American Nurses Credentialing Center (ANCC)
Who are the users of the tool?	Nurses
How is the tool accessed? (e.g. by the assessor or the assessed?)	Online by the assessed
Which IT services does the tool offer? (e.g. validation, certification, assessment)	E-learning, testing and accreditation
What is the purpose of the tool?	Accreditation
Which competences are validated	Professional and organisational competences of nurses
Which competence dimensions are assessed?	Knowledge, skills and abilities
Which role does the tool play in relation to validation of prior learning?	It is a kind of E-portfolio where nurses gather their documentation of prior learning and their continuing professional development
Technical specifications	unknown
Validation of professional competences	
Name of the tool	The Federal Competency Assessment Tool
URL	http://www.hru.gov/FCat.aspx
Country	USA
Who provides the tool?	HRU - Federal Government's Human Resources Career Development Center

Who are the users of the tool?	Human resources employees
How is the tool accessed? (e.g. by the assessor or the assessed?)	Online at certain fixed dates
Which IT services does the tool offer? (e.g. validation, certification, assessment)	Assessment and certification
What is the purpose of the tool?	Assessing current proficiency levels for human resource (HR) professionals. It enables HR employees to conduct a competency self assessment and their supervisors to assess the competencies of their employees to determine strengths and areas for improvement. FCAT-HR is a valuable tool to support succession management, competency gap closure, competency development, and recruitment and retention that advances agencies' human capital management efforts in accordance with the Human Capital Assessment and Accountability Framework (HCAAF).
Which competences are validated	The tool contains the CHCO Council Human Resource Management Competency Model. The Model has nine basic competencies organized in four areas (HR Technical, People, Consulting, and Analytical). Technical competencies include the further breakdown to specific areas. The assessment covers a total of 36 competencies, 33 CHCO HRM competencies and three additional performance management competencies. FCAT-HR provides recommended proficiency levels for determining gaps and agency-level access to reports and data.
Which competence dimensions are assessed?	Knowledge and skills
Which role does the tool play in relation to validation of prior learning?	unknown
Technical specifications	unknown
Recruiting	
Name of the tool	CAB (Computergestütztes Auswahlverfahren für den gehobenen Polizeivollzugsdienst/ Computer-aided personnel selection for higher police services Hesse)
URL	http://www.polizei.hessen.de/icc/internetzentral/nav/e73/e73

	40527-bab6-4021-3104-182109241c24.htm
Country	Germany
Who provides the tool?	Police Hesse, Germany
Who are the users of the tool?	Applicants for police service
How is the tool accessed? (e.g. by the assessor or the assessed?)	Through the intranet of the police Hesse by the assessed and the assessor.
Which IT services does the tool offer? (e.g. validation, certification, assessment)	Pschological assessment tests and ratings
What is the purpose of the tool?	Test for applicants
Which competences are validated	Social and personal competences
Which competence dimensions are assessed?	all
Which role does the tool play in relation to validation of prior learning?	none
Technical specifications	unknown

Table 1: Exemplary results of desk research on IT based Assessment and Validation systems

Summary
There is no doubt that the validation of competences is of European wide interest. In all countries validation projects directing at different target groups exist. Most focus on the recognition of prior learning in regard to employability and integration into the labour market. Nevertheless IT based systems that precisely offer validation of SPOC to different target groups are rare.

The exemplary approaches presented above give an overview of various categories of IT based systems with different scopes and services:
They were clustered by functions and targets:
- Assessment of SPOC
- Documentation of SPOC
- Validation of professional competences
- Recruiting

There is a large number of IT based assessment tools, partly with automatic generation of results, especially in the field of job counselling for school students and young adults or for the assessment of specific competences, i.e. leadership.

Other tools provide the opportunity to gather and display ones references (e-portfolios) and hybrids of testing and collecting.

Furthermore a number of IT based instruments exist in the field of HR.

The variety of instruments existing often are exclusively designed to be used in specific branches or working fields. Especially in the highly regulated medical sector with extensive documentation duties IT based validation systems exist. The focus onto professional skills is predominant though.

An exemplary commercial offer for HR management is provided by the Halogen TalentSpace™ suite (http://www.halogensoftware.com/products). Halogen offers a number of software modules that are supposed to support management of human resources, be it for staff, applicants. The package contains self- assessment and documentation tools with different foci. There are also a number of recruiting selection instruments testing social and personal competences like the CAB.

In terms of technical specifications and interfaces to bigger qualifications frameworks like EQF there generally is little transparency on details of these systems, as least are accessible for the public without registration.

Closely related to competency assessment and certification is the combination of e-learning offers combined with assessment and analysis of results along the concept of MOOCS, massive open online courses.

The project website of IBAK - „Identification, assessment and recognition of informally acquired competences" provides an Internet database on methods of identification, assessment and recognition of informally acquired competences with strong focus on SPOC. Out of the entire list of 107 instruments results narrow down to six, if the search is specified to "recognition and validation of qualifications" (http://www.competences.info/ibak/cms/website.php?id=/en/index/ibak_thema/3.htm)

The eCOTOOL project outlined probably a tool which came very close to the validation purpose by setting up a number of learning outcome specifications related to competences of farmers in vineyards. This is again a very specialised solution in the field of VET – far away from generic or SPOC competences.

However, since there are also IT-based challenges that hamper the development of standardised solutions. If no specification of learning outcomes descriptors are available it is simply impossible to standardise them in a way that they fit to different other programmes like LMS or e-portfolios.

Note: this does not refer to the contents and the descriptors. But it is of course a major difference if performances are assessed (as in formal assessments) or potentials (in form of developments like in formative assessments).

As far as the e-portfolios are concerned, up to now, there is also no standard.

In fact, at present, most e-portfolio systems are using different proprietary formats to store information related to skills, competencies and abilities. Importing and exporting features required for promoting e-portfolio interoperability between organisations are not really supported. In this scenario, the integration, for instance, between e-portfolio information coming from universities and the e-portfolio adopted at enterprises is hampered by the lack of a common standard.

Actually there are two main standards used to describe students' learning experiences:

- the Public and Private Information for Learners (PAPI Learner) defined by the IEEE Learner Model working group as a standard for students model, with the aim of gathering information related to competences, personal data, learning style. This

standard is composed by six types of data related to Personal, Relations, Security, Preference, Performance and Portfolio information.

- the IMS ePortfolio Best Practice and Implementation Guide released by the IMS consortium in 2005. This specification uses the XML language to define the characteristics of an e-portfolio.

Considering the recent development of Semantic Web in general and Linked Open Data in particular, one could propose the use of specific ontologies to enrich the e-portfolio description by considering not only the key elements of an e-portfolio in the framework of a future project on ICT specifications.

After an intensive research on the issue, comparing more than 40 e-portfolios the VITA community decided in 2012 to work with the mahara system (www.my-vita.eu).

Finally there is a recent development of the Mozilla foundation to guarantee at least the authentification of the providers of (not formalized) learning outcomes by so called Mozilla badges.
However, this system again assures that the badge handed to a learner is issued by the right (entitled) organization – what is missing below this level is the question how those competences are assessed and documented in a reasonable, evidenced based way. Here, LEVEL5 has certainly its place by providing reference systems and a validation tool that can be contextualized.