Conceptualizing validation of work experience in a Finnish University of Applied Sciences

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Higher education in Finland consists of two educational pillars: in addition to the traditional research-oriented universities, higher education is provided by universities of applied sciences (UAS). The most unique feature for a UAS is the active collaboration with industry. In the national legislation regulating the functions of UAS institutions (Act 932/2014), it is an important element that these institutions have a mission to act in tight cooperation with the industries of their region, thus nurturing a spirit of entrepreneurialism and contributing to the social and economic activity in the disciplines and sectors involved in the respective degree programs. Hence, since their early years – the first UAS was established in 1991 – UAS institutions have been interacting with companies, organizations, institutions and individual entrepreneurs throughout a variety of projects, UAS theses on EQF levels 6 and 7 and cooperation of all kinds. Accordingly, the institutions have established themselves as hubs for active development, innovation and education all over the country. On a national scale, UAS institutions have a significant role in transferring knowledge and fostering innovation. To our understanding however, recognition of competences and skills acquired in professional life and throughout work experience has not been fully implemented in Finnish UAS institutions. Moreover, there is a need to embed the philosophy of validation to the pedagogical mindset of UAS lecturers and staff and extend it towards recognition of learning occurring in all contexts.

Combining higher education studies and work is undertaken in UAS institutions through a variety of modes: from mandatory work placements into projects assigned by relevant industries. In the last few years, the Finnish Ministry of Education has stressed the importance of smooth progress of studies and fast graduation and changed funding parameters to match these criteria. It has become an obligation for UAS institutions to focus on combining work experience – and that resulting from diverse associations, with bodies such as charities or even the individual learner's hobbies – to studies. The employment rate of graduates is one element in the funding mechanism of the institutions, which have hence a strong

reason to facilitate the path of their students towards employability and interesting careers. The Rectors' Conference of Finnish Universities of Applied Sciences (ARENE) has defined recommendations for generic competences required at EQF levels 6 and 7, and the ones for working community competence complement adequately the priorities of the European Framework of Qualifications (Appendix 1).

How to recognize learning that occurs at work and transform it into credit points has become one of the key issues for UAS institutions that find themselves currently in a period of restructuring and financial challenges. We argue that an understanding of the mechanisms of validation and their implementation from traditional non- and informal learning contexts towards real work contexts in a structured process, designed with modern pedagogy of learning by doing, results in more equal learning environments.

Moreover, an internal justification for validation among Finnish UAS institutions is that by better validation processes students maintain their motivation and proceed faster towards the ultimate aim of their studies – to be employed. However, the borderline between studying and working has become more and more blurred, since especially in the Helsinki metropolitan area, most students continue working at least part-time during their degree studies. Furthermore, there is an increasing number of part-time adult students in UAS degree programs. The syllabi for these students have been designed with the principle that combining full-time work and higher education studies is possible. Combining a full-time career with a UAS degree programme is a somewhat Finnish specialty which supports the lifelong learning ambition of Finns. More than 50 % of the Finnish higher education students who combine work alongside studies are employed in the field of their studies. This is a higher percentage than for higher education students in other European countries. The most important reasons for working are financing living costs, improving standard of living and gaining work experience (Hauschildt et al. 2015).

However, this establishes a challenge of importance and merits attention from the providers of education: how to take the experience and professional context of mature students into account and cater for their specific needs in terms of curriculum design and thereby enhancing their motivation? A restructuring of the validation process and rethinking its underpinning philosophy is one possible solution to this challenge for UAS institutions.

Validation of learning is one of the priorities of the education sector of the European Union. The European Ministers of Education in 2015 agreed and set the following objectives: enhancing the quality and relevance of learning and teaching, fostering the employability of graduates throughout their working lives, making our systems more inclusive and implementing agreed structural reforms. Validation and various structures of recognition are at the centre of these priorities. Up to the present however, there is not much empirical research or documentation on structured, work-related implementations of validation (Souto-Otero 2014). To our

experience, most UAS students are familiar with the concept of validation in terms of recognition of *prior learning* in informal- and non-formal learning environments, but they do not necessarily anticipate the opportunity to benefit from the recognition of their work experience and learning occurring in their professional contexts.

In this paper, we present the outcomes of an ongoing national project in Finland concentrating on validation of learning occurring at work, implemented in the framework of UAS institutions (Verkkovirta). We outline challenges that the different stakeholders (institutions, students and employers) face when new models to combine work and studying are being launched within higher education, but introduce also solutions to enhance pedagogical processes to meet the needs of the changing world of work. Finally, we present a new concept for validation of learning occurring at work, which is launched under the slogan "Work & Study" at the second largest Finnish University of Applied Sciences, Haaga-Helia (Appendix 2).

Drawing on prior research on learning in other non- and informal contexts, we aim at opening perspectives on work-specific problems in validation, and emphasize in a holistic manner of learning in the framework of professionally oriented higher education. We argue that a better recognition and validation of work experience within higher education is in the interest of students, of higher education institutions, of employers and ultimately, the socio-economic development of the country. Our second argument is that the potential of the mandatory work placements in Finnish UAS degrees is not fully exploited, if their objective is solely to accumulate the ECTS points dictated by the law, instead of integrating the placement to the continuum of learning of the individual, and by customizing this process by validating the competences acquired.

1. Theoretical background

Michael Tomlinson (2008) has studied employability of university graduates in the UK and argues that an academic degree as such does not guarantee a satisfactory career development, but students express a need for added value provided by other qualifications to improve their employability. Our stance is that also in a wider perspective, including Finland, this added value may be constructed through a solid and thoroughly planned embedding of working life skills in the curricula, and by validation of competencies acquired at work. Work-based learning has increasingly become an area of interest for the higher education sector (e.g. Brennan & Little 2006, Lester &Costley 2010). It can be considered as one of the means to support the personal and professional development of students who are already at work, with a learning and development focus connected to students' workplace activities.

In validation of work experience, integration of theory and practice and the build-up of specific professional competencies together with generic working skills play an essential role. The theories of integrative pedagogics (Tynjälä 2008) as well as the connective model for learning (Guile & Griffiths 2001; Griffiths & Guile 2003) have been applied to build understanding on the topic. In integrative pedagogics, conceptual and experimental knowledge together with control of activities combine in a way that enables the integration of formal and informal learning (Tynjälä 2008). The connective model (Guile & Griffiths 2001; Griffiths & Guile 2003) is an alternative way to support integration of higher education studies with learning at work. The model emphasizes the active role of the student in planning and agreeing on the learning outcomes in the workplace, as well as reflecting it to other learning environments.

In terms of assessment and evaluation of performance, combining work and studying is a challenging field for education providers (Griffin 2011). A better understanding of the processes and practices of workplace learning is needed to develop guidance in higher education. Students perceive learning at work compared to learning in educational institutions as very different learning contexts (Collin 2009). However, combining working with studies creates possibilities to assess competence, where formal and informal learning are acknowledged. The aim in the validation of work is to improve students' employability, which is one of the most important quality factors in higher education. It has been criticized whether this type of approach leads to one-sided meeting of the working life needs, whereas general academic competencies will not be achieved. (Puhakka et al. 2010). Fully aware of this constant challenge and whilst developing curricula based on both theory and practice, education providers should invest more in learning at work, offering such authentic and sustainable learning experiences that are important for students' professional and personal growth, but cannot be undertaken in the learning environment provided solely by educational institutions. According to our experience, the challenge in these processes remains first and foremost in providing a transparent and valid context for assessment of performance.

The lack of common understanding on assessment procedures transferred from the institutional context towards other contexts, such as work, has been highlighted by Boud and Falchikov (2007), who argue that current higher education assessment processes – built on the idea of the lecturer being present in all learning situations – do not fully equip students for real-life contexts, which may ultimately lead to difficulties in employability. There is a need to design competence criteria that can be used assessing performance at higher education level in versatile and changing learning environments, not only in educational institutions. This requires a solid theorization and context-specific implementation of assessment for learning and discussion on the dimensions of criteria- and competence based assessment as such (Sadler 2010). In competence-based

assessment in higher education, competence is defined as knowledge, skills and attitude linked with authentic work (Saranpää 2012). In this endeavor, the distinction between criteria and standards needs to be defined (Sadler 2010), to avoid confusing both lecturers and learners, and to remain transparent in an assessment process which is valid and reliable also from the perspective of working life.

Current developments in validation as in the Nordic Model (Road Map 2018) enhance the applicability of occupational and professional standards towards learning and assessment criteria of higher education in general. However, Olesen (2014) emphasizes the gap which still exists between two distinct regimes of recognition, both with their agendas and criteria: those of working life, as applied by industry and business, and those applied by the formal education institutions, focusing more on intellectual skills. Dialogue between these two and developing a common discourse for them is one of the current challenges, whilst widening learning contexts outside the academic classrooms and libraries towards professional life, and in improving the credibility of the process. This fits adequately the objectives of both life-long and life-wide learning of the European Union.

Another feature of importance for successful learning outcomes in non-institutional environments resides in implementing peer-assessment strategies alongside assessment and evaluation by lecturers. The beneficial impact of developing systematically the peer-assessment skills of students in higher education on their work-related and meta skills, and eventually on employability, has been studied e.g. by Simon Cassidy (2006). He argues nevertheless that these skills do not develop without constant training, and this is one element investigated in the case study of our paper, the studification of work within Finnish UAS institutions and the process being currently developed for it at Haaga-Helia UAS. The terms “studification” and “educationalization” of work refer to the same concept, namely that of completing higher education studies while working in a relevant field. Within higher education, this is relatively new, hence the terminology in English is not fully established yet, although validation of work experience is a strategy and process applied in most countries especially in vocational education. In Finnish, the term “opinnollistaminen” is used widely. Educational terminology is however of no interest to industries that UAS institutions are collaborating with and to simplify the pedagogical jargon, Haaga-Helia UAS is launching a straightforward concept that tells exactly what the process is about: “Work & Study”. Conceptualization and implementation of this process is one way to commit ourselves to creating a framework of blended learning that facilitates validation of work in UAS studies, for the benefit of all parties.

2. Description of a case study

The observations presented here are derived from a project called Verkkovirta (*Verkkovirta – new forms of studification in collaboration between higher education and work*). The project is financed by the European Social Fund and implemented from May 2015 to December 2017. It is one part of the project entity "*Osuvaa osaamista, korkeakoulusta työelämään* (Apt competence, from higher education to work)" governed by the Finnish Ministry of Education and Culture. Haaga-Helia School of Vocational Teacher Education is responsible for coordinating the project, while the subprojects are implemented in 14 universities of applied sciences in Finland, covering all fields of education on both Bachelor and Master level degrees as well as representing different fields of higher education. Verkkovirta aims at developing new models for accumulating study credits at daily work. At the same time, innovative ways to link studies with work are developed in addition to traditional work placement solutions. Furthermore, the project focuses on collegial and inter-institutional development of documentation and tools within a variety of validation processes and on promoting a common understanding of the objectives of validation of work in higher education.

Verkkovirta works hands-on with participating organizations. Between May 2015 and February 2017, the project has run 89 workshops and meetings in different universities of applied sciences. Currently, the project experts are collaborating with four target organizations and companies to construct models that combine workplace management practices with assessment of learning at higher education institutions. The project experts co-operate actively with the Students' Union of Universities of Applied Sciences in Finland – SAMOK to get constant student feedback on the new practices to be developed. Each subproject is bound to build new, easily applicable models for validation of work. The models will be shared within subprojects across fields of education.

The findings presented below draw on observation of discussions in workshops and meetings, interviews with key stakeholders at workplaces as well as student feedback from study modules completed in target organizations.

3. Findings

Validation of work challenges the processes and practices of the UASs

During our project, it has become apparent that Finnish UASs in different fields of education and with different regional profiles are still at the phase of building the processes of validation of work. In rural areas UASs often play a key role in the development of the region, whereas in the metropolitan area this development role is not as evident or perhaps important. Furthermore, different fields of education have various traditions for collaboration with workplaces. For example, in the field of nursing, students need to have official qualifications to be able to work in expert level professions, whereas in the field of business it is likely that

students may work on expert level before they graduate. Nevertheless, it has proven very fruitful to pilot new approaches of validating work throughout the country and across different fields of education to find new practices that can be disseminated not only in the same field of education but also in a cross-sectoral way. The development from traditional teaching to fostering alternative ways of acquiring competence is a change process for the UAS institutions and will require time and leadership that promotes new ways of learning in higher education.
Since validation of work is a relatively new concept at the UAS institutions despite their established cooperation with relevant industries, communication about new practices in different channels is essential. Students need to be informed on the possibilities of integrating work and studies at the beginning of their studies, preferably even already at the application phase. Virtual channels such as the social media are important, although based on our project findings, study counsellors are in a prominent role when addressing the topic in the first individual counseling session with each student. The Nordic philosophy of validation, with the individual at the center of the process and making active personal decisions upon solid information, is the objective in the development (Road Map 2018). If the student works at an expert level position of the educational field, the study counsellor can introduce the possibility of integrating work and studies and encourage the student to consider that option. After that, it is the role of the UAS to provide processes and documentation that enable flexible, yet cost-effective learning paths for the student. All these practices are being developed and shared in the Verkkovirta project.

Curricula play an important role in validating work experience. Based on our research, it has become visible that if the curriculum consists of specific theory-driven study modules, the learning outcomes and criteria of the study modules are designed to support assessment applicable at the UAS, but not at workplaces. The language of the assessment criteria is academic, hence distinct from the colloquial use of performance and assessment discourse in professional situations in various fields, as it has been pointed out above by the findings of Olesen (2014). Therefore, it is most challenging for the student to make sense of how to fulfil the learning criteria at the workplace, without the support of a guidance counsellor or a lecturer. In our experience, the design of competence-based assessment criteria is one of the most time-consuming activities when competence-based curricula are being developed. At the same time, it is one of the key activities in embedding the pedagogical change at institutions. The process has a better chance of success when lecturers design the criteria in close collaboration and while networking with each other and with stakeholders in the relevant fields in industry.
The competence acquired at workplaces does not necessarily follow the structure of the curriculum, nor its timeline. Therefore, lecturers in charge of validation need to possess a wide and thorough understanding of the curriculum and the profession to handle the assessment. It occurs often that lecturers need to assess students together to provide a holistic, often multidisciplinary, view of their

competence. This way of working is still new to UAS lecturers, who have traditionally worked alone with students in the classroom. As discussed earlier (Puhakka et al. 2010), there is still some scepticism among teachers and lecturers concerning validation of work. There remains some questioning on whether it is possible to reach a higher education level throughout validation of work. Hence, it is essential to emphasize relevant theory connected to work experience and reflect both towards learning. This process requires transparent and solid guidelines for both students and the institution.

Demonstration day – an innovation for validation of work

To provide of a smooth and cost-effective approach to validating work, Haaga-Helia UAS has launched in 2015 a concept called "Demonstration day", establishing thus an effective method to validate work in a collaborative setting, with the possibility to cover all study modules of the curriculum. Moreover, it is the finalizing phase of validation within the concept of "Work & Study". The process starts with thorough planning through mapping the competence criteria of the study modules to be completed by studification towards the projects and responsibilities of the student in his or her working environment and tasks. This plan is discussed and agreed upon by the organization in question, by the lecturer monitoring the process and by the student, who thereby engages him/herself to continuous documentation and self-assessment throughout the studification process. The lecturer ensures that the academic criteria aremet by advising on reading and possible further assignments such as portfolios, and the manager agrees on providing feedback on performance and achievements at work.

Before the demonstration day, each student prepares a pre-assignment that integrates the theoretical background of the study module, the related work experience and the reflection of the learning accumulated. This pre-assignment is first discussed and then assessed in the demonstration day by lecturers, peer students and related industry stakeholders with the competence criteria of each study module. The lecturers have the final responsibility for the grading of the students, and a variety of demonstration instruments are being applied. This approach has proven to be very effective, since numerous competence demonstrations can be prescheduled to take place in one day, and added value is achieved by the presence of industry stakeholders as external feedback providers. The demonstration day becomes a forum for the exchanging and sharing of knowledge for all parties. Demonstration days have been conceptualized and piloted at Haaga-Helia StartUp School, a hub for entrepreneurial activities of Haaga-Helia students, and by business administration degree programs. Furthermore, they will be launched in other units across disciplines during the year 2017. Additionally, other UASs taking part in Verkkovirta project have been following the progress at Haaga-Helia and are planning to launch similar concepts.

Students formulating competencies

Based on our findings from Verkkovirta project, UAS students who work either part or full time during their studies at expert level in their own field of education have warmly welcomed the new pedagogical approach. As one of our entrepreneur student stated: "I would not have graduated from Haaga-Helia without being able to demonstrate the competence I have acquired in my own enterprise."

However, validation of work requires new skills from students. They need to become active players, assuming responsibility of their progression since the validation process is initiated and managed by students themselves. Students have often become accustomed to being instructed by lecturers on what to do in each study module, whereas in the new approach they design their own learning process and manage the progress. Training in the skills associated with peer assessment is also required and this has proven itself valuable for the future in terms of generic working skills.

Another challenge raised by students demonstrating their competence is the low ability in finding appropriate and accurate expressions to define one´s own competence acquired at work. At educational institutions, it has been common to talk about learning, not about competencies. The wording of competencies belongs to the skill set of current professional qualifications, and formulating competencies should be integrated as part of degree programmes at UASs

Workplaces enrich the assessment

For workplaces and employers, validation of work on a large scale is still an unknown concept. During demonstration days at Haaga-Helia, industry representatives have been involved in the assessment of students. Our findings show that their participation is beneficial for both UASs and students. These representatives can provide the latest knowledge of the field into assessment discussion, hence enriching and widening it. Some of our participating lecturers have stated that collaborating with industry representatives has updated their own competences and motivated them to modify the content of their respective study modules to meet the current requirements of the industry. The setting is beneficial to all stakeholders, including the alumni of Haaga-Helia who have been eager to get involved in the process, thus providing a double commitment: that of an alumnus having gone through a corresponding learning experience at Haaga-Helia, and that of a professional in the given field.

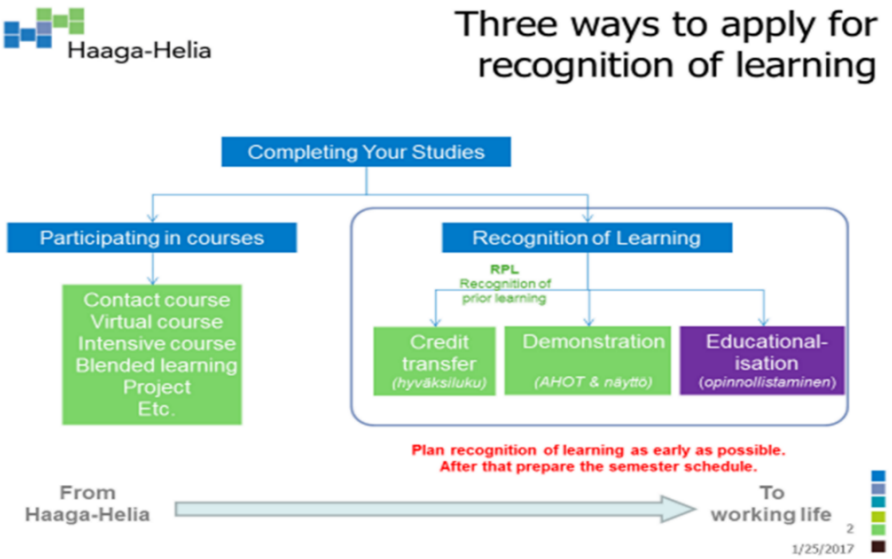
In our project, it has been noticed that industry representatives find it challenging to assess students based on the scales provided by the UAS. As discussed above, the discourse of the assessment criteria is often too academic, when reflected towards practices in professional contexts at work. While discussing the phenomenon of combining work and studies with four Finnish organizations during the project, it has been recognized that the potential of higher education studies has not been fully utilized at workplaces. Managers are not acquainted with the curriculum of the employee studying at a UAS. Therefore, it can be challenging to come up with a development plan that can benefit both the employee and the

organization. More integration between development discussions at work and studies at a UAS is called for, and this would undoubtedly lead to the development of mutual added value and increased understanding.

4. Conclusion

The slogan for Haaga-Helia UAS states: "We open the doors to working life." There is a dual meaning in this objective: our task is to open the doors for students, of all ages, and to keep the doors open to the actors of working life itself. It is a two-way road, benefiting all parties. At Haaga-Helia, we conceptualize the complexity of our learning environment with the following graphic:

Figure 1. Recognition of learning at Haaga-Helia University of Applied Sciences



"Work & Study" is not a method of teaching, an automate of credit accumulation or a framework of assessment, but a mindset. It does not transform sporadic occupations towards ECTS points, but caters for a novel way of tackling the validation challenge by establishing a platform of cooperation between the UAS institution, the students and the companies and organizations. Adopting new mindsets is seldom easy: students applying for "Work & Study" need to plan their part- or full-time working, internships and placements in functions of the entire curriculum and to be prepared to document activities and learning which they would not need to do, were they working just to be paid or to have undefined work experience. Lecturers need to adjust to a new way of mapping competence criteria

towards learning outcomes in constantly changing contexts. Companies and organizations are expected to participate by providing feedback on the performance of students, and all stakeholders need to apply thorough planning, to nurture a positive and motivating learning environment. Documentation is essential, responsibilities must be assigned and the information must flow and be exchanged between the parties. Moreover, the structure needs to be compatible with the quality assurance system of the UAS institution and maintain transparency to remain reliable. The learning outcomes are defined in the curriculum text of each degree program, and the criteria for obtaining them cannot change although the context of learning is changed.

Already before coming to the end of its term the, Verkkovirta project has provided valuable tools for assessment, strategies of development and demonstration instruments for use by Finnish UAS institutions. It has become a platform of disseminating good practices and of discussing those that are still under construction. Moreover, it has equipped study and career counselors in UAS institutions with the knowledge and skills to establish novel ways to incorporate mandatory work placements with other modules of the curricula.
The website, available also in English (www.amkverkkovirta.fi/english) is an active networking tool and provides all the information of events, findings and matters of interest within the context of validation of work experience. For Haaga-Helia UAS, the project has been an efficient forum to disseminate the philosophy and practices of our way to conceptualize the validation our work: Work & Study. We are confident that it is one of the most effective ways to contribute to the development of more motivating learning paths, leading to interesting career opportunities for our students and future graduates. With the practice of demonstration days, resulting in the involvement and contribution of alumni the programme has generated genuine added value and cements the continued relationship between UAS institutions and their alumni.

References

Ammattikorkeakoulujen rehtorineuvosto ARENE ry. 2007. Ammattikorkeakoulut Bolognan tiellä.
http://www.pkamk.fi/ects/materiaali/Ammattikorkeakoulut%20Bolognan%20tiellä%2001200
7.pdf (The Rectors' Conference of Finnish Universities of Applied Sciences).
Asetus ammattikorkeakouluista (A932/2014). Suomen säädöskokoelma. (Decree on Universities of Applied Sciences A932/2014).
Boud, D. & Falchikov, N. eds. (2007). *Rethinking assessment in higher education: Learning for the longer term*. Routledge, 2007.
Brennan, J. & Little, B. (2006). *Towards a strategy for workplace learning*. Milton Keynes: Open University Centre for Higher Education Research.

Cassidy, S. (2006). Developing employability skills: peer assessment in higher education. *Education + Training,* Vol. 48 Iss. 7, pp.508 – 517.

Collin, K. (2009). Connecting work and learning in industrial design and development. In Stenström, M-L. & Tynjälä, P. (Eds.) *Towards integration of work and learning*. *Strategies for connectivity and transformation*. Springer, Jyväskylä.

European Commission. 2008. European Qualification Framework for Lifelong Learning. http://ec.europa.eu/education/lifelong-learning-policy/doc44_en.htm#doc. Retrieved 17th February 2017.

Griffin, R. (2011). Seeing the wood for the trees: workplace learning evaluation. *Journal of European Industrial Training.* Vol. 35 Iss. 8 pp. 841-850.

Griffiths, T., & Guile, D. (2003). A Connective Model of Learning: the implications for work process knowledge. *European Educational Research Journal,* 2(1), 56–73.

Guile, D. & Griffiths, T. (2001). Learning through work experience. *Journal of Education and Work,* 14 (1), 113–131.

Hauschildt, K., Gwosć,C., Netz, N. & Mishra, S. 2015. Social and Economic Conditions of Student Life in Europe. EUROSTUDENT V 2012–2015, Synopsis of Indicators. W. Bertelsmann Verlag GmbH & Co. KG. http://www.eurostudent.eu/ Retrieved 25th February 2017.

Lester, S. & Costley, C. (2010) Work-based learning at higher education level: value, practice and critique. *Studies in Higher Education* Vol. 35, No 5, pp. 561-575.

Linkages of VPL (2014). Validation of Prior Learning as a multi-targeted approach for maximising learning opportunities for all. Edited by Ruud Duvekot, Dae Joong Kang and Jane Murray. *Series* VPL Biennale nr. 2. May 2014. Vught.

Olesen, H. S. (2014) The invention of a new language of competence – a necessary tool for a lifelong learning policy. *In* Linkages of VPL (2014). Validation of Prior Learning as a multi-targeted approach for maximising learning opportunities for all. Edited by Ruud Duvekot, Dae Joong Kang and Jane Murray. *Series* VPL Biennale nr. 2. May 2014.Vught.

Puhakka, A., Rautopuro, J. & Tuominen, V. 2010. Employability and Finnish University Graduates. *European Educational Research Journal*. Vol. 9, No 1, pp. 45-56. http://dx.doi.org/10.2304/eerj.2010.9.1.45

Sadler, R. (2005). Interpretations of criteria-based assessment and grading in higher education. *Assessment & Evaluation in Higher Education* Vol. 30 , Iss. 2,2005

Stenström, M-L. & Tynjälä, P. (Eds.) *Towards integration of work and learning. Strategies for connectivity and transformation*. 2009. Springer, Jyväskylä.

Road Map 2018. Validation and the Value of Competences. Nordisk Nätverk for Vuxnas Lärande. <http://nvl.org/Content/Validation-and-the-value-of-competences-Road-Map-2018>. Retrieved February 22nd 2017.

Saranpää, M. (2012). Arvostan osaamista, arvioin osaamista. Kriteerien kriteerit. In Hannu Kotila ja Kimmo Mäki (Eds.) *Ammattikorkeakoulupedagogiikkaa 2.* Helsinki, Edita.

Souto-Otero, M. (2014). European inventory on validation of non-formal and informal learning 2014. Thematic report: research themes on validation. European Commission; Cedefop; ICF International (2014). http://libserver.cedefop.europa.eu/vetelib/2014/87241.pdf. Retrieved on February 15th 2017.

Tomlinson, M. (2008). 'The degree is not enough': students' perceptions of the role of higher education credentials for graduate work and employability. *British Journal of Sociology of Education.* VOL. 29, ISS. 1.

Tynjälä, P. (2008). Perspectives into learning at the workplace. *Educational Research Review*, 14 (3), 730–754.

www.amkverkkovirta.fi/english. Website for Verkkovirta project.

Appendix 1.

Descriptions of Generic Competences *(Arene 2007)*

	Description of the competence, bachelor level	**Description of the competence, master level**
Learning competence	- is able to self-evaluate and develop one's competence and learning style orientation - is able to retrieve and analyze information and evaluate it critically - is capable of taking responsibility for collaborative learning and sharing knowledge in teams	- is able to self-evaluate and develop one's expertise in a versatile and focused way - is able to retrieve, analyze and produce information and evaluate it critically from the point of view of different fields - is capable of taking responsibility for collaborative learning in a target-oriented way
Ethical competence	- is able to take responsibility for one's own actions and for the consequences of these actions - is able to work according to the ethical principles of the subject field - is able to take other people into account in one's actions - is able to apply the principles of equality - is able to apply the principles of sustainable development - is capable of social influencing using one's know-how and based on ethical values	- is able to take responsibility for the actions of a community and for the consequences of these actions - is able to apply the ethical principles of the subject field as an expert and as a developer of working life - is able to make decisions considering an individual and the community - is able to contribute to the principles of equality in working life - is able to contribute to the principles of sustainable development and social responsibility - is capable of leading socially influential activities based on ethical values

Working community competence	- is able to operate as a member of a work community - is able to operate in communicative and interactive situations in working life - is able to utilize information and communications technology in one's subject field - knows the working life in one's subject field and is able to create personal contacts in working life and to operate in professional networks - is capable of decision making in unpredicted situations - is able to apply the principles of organizational management and leadership in working life and has abilities for supervision tasks possesses entrepreneurial skills	- is able to develop the operations of a work community - is able to develop multidisciplinary communication and interaction in working life - is able to utilize information and communications technology in one's work - is able to create networks and partnerships - is capable of management and supervision tasks and is able to improve activities in complicated and unpredictable environments is able to work as an expert or entrepreneur and has abilities for management and supervision tasks
Innovation competence	- is able to conduct research, development and innovation projects applying the existing knowledge and methods of the field - is able to work in projects is capable of creative problem solving and development of working methods - is able to find customer-oriented, sustainable and profitable solutions	- is able to manage research, development and innovation projects and masters the methods of research and development work - is able to manage project work is able to create new information and improve existing working methods by combining expertise from different fields is able to develop customeroriented, sustainable and profitable solutions
Internalization competence	- possesses communicative competence necessary for one's work and for professional development in the subject field - is able to operate in a multicultural environment - takes into account the effects of and opportunities for internationalization development in one's own field	- is capable of international communication in one's work and in the development of operations - is able to operate in international environments - is able to predict the effects of and opportunities for internationalization development in one's own field

Appendix 2. Flyer for “Work & Study”, Haaga-Helia UAS.

WORK&STUDY

OPI TYÖSSÄ — LEARN AT WORK

Work&Study (=educationalisation) is a new way of learning in Haaga-Helia University of Applied Sciences. In Work&Study you learn and earn credits while working or participating in other activities that develop competencies required in your personal study plan.

READ MORE: MYNET→STUDIES→WORK&STUDY

Haaga-Helia