

Roland Tutschner, Wolfgang Wittig,
Justin Rami (eds.)

Accreditation of Vocational Learning Outcomes

European Approaches to Enhance
Permeability between Vocational and
Higher Education

Projektergebnisse

Materialien

Tagungen

Dokumente

Imprint

Publisher:

Nationale Agentur Bildung für Europa
beim Bundesinstitut für Berufsbildung (NA beim BIBB)

Accountable party pursuant to German media law:

Klaus Fahle

Editors:

Roland Tutschner, Wolfgang Wittig and Justin Rami

Layout:

kipconcept, Bonn
Dirk Stieglitz, ITB, Bremen

Printing:

Perspektiven Offsetdruck, Bremen

Status as of December 2009

Please send orders to:

Universität Bremen
Institut Technik und Bildung
Am Fallturm 1
28359 Bremen
www.itb.uni-bremen.de
Reference Number: 09.161

The project CREDIVOC ("Transparency and Mobility through Accreditation of Vocational Learning Outcomes") has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

ISSN 1618-9477

ISBN 978-3-88555-865-1

Roland Tutschner, Wolfgang Wittig, Justin Rami (eds.)

Accreditation of Vocational Learning Outcomes

**European Approaches to Enhance Permeability
between Vocational and Higher Education**

Schriftenreihe der
Nationalen Agentur Bildung für Europa
beim Bundesinstitut für Berufsbildung

BILDUNG FÜR EUROPA
Nationale Agentur beim



project partners



**Universität Bremen
Institut Technik und Bildung**



3s research laboratory



**Carl von Ossietzky Universität Oldenburg
Arbeitsbereich Weiterbildung und
Bildungsmanagement**



**Jyväskylän yliopisto
Koulutuksen tutkimuslaitos**



**Université de Strasbourg
BETA/Céreq Alsace**



**Dublin City University
The School of Education Studies**

Contents

| | |
|--|-----|
| Introduction | 5 |
| <i>Roland Tutschner, Wolfgang Wittig, Justin Rami</i> | |
| Improving Permeability through Equivalence Checks: an Example from Mechanical Engineering in Germany | 10 |
| <i>Wolfgang Müskens, Roland Tutschner, Wolfgang Wittig</i> | |
| Permeability between Vocational Education and Training and Higher Education in Austria – Experiences, Good Practices and Perspectives | 34 |
| <i>Monika Prokopp, Karin Luomi-Messerer</i> | |
| Case Study on “VAE” Implementation Procedure and Practice in Higher Education | 61 |
| <i>M’Hamed Dif, Jean-Alain Heraud, Paul Nkeng</i> | |
| Validation of Learning Outcomes through Individualisation in Finnish Adult Education | 85 |
| <i>Marja-Leena Stenström</i> | |
| Recognition and Accreditation of Prior Learning in Higher Education – Engineering in Ireland: a Case Study | 103 |
| <i>Justin Rami, John Lalor</i> | |

Introduction

Roland Tutschner, Wolfgang Wittig, Justin Rami

The improvement of the quality, permeability and effectiveness of the systems of education and training is a key priority within the European Union's Lisbon strategy (2000), and the implementation of this goal in the sector of vocational education and training has been specified by the Copenhagen declaration of 2002. The declaration advocates the establishment of a European Qualifications Framework (EQF)¹ and a European Credit System for Vocational Education and Training (ECVET)² as well as common principles for the recognition and accreditation of learning outcomes, especially of informal and non-formal learning.

With regard to vocational education and training this situation leads to the question as to how vocational learning outcomes (i.e. knowledge, skills and competences acquired in vocational education and training and other learning environments related to occupations and skilled work) can be accredited for further learning activities, especially for higher education programmes. In the different European countries a variety of approaches and instruments for the accreditation of vocational learning outcomes can be observed.

These concepts and instruments are in the focus of the LEONARDO DA VINCI Transfer of Innovation project "Transparency and Mobility through Accreditation of Vocational Learning Outcomes" (CREDIVOC)³, which was carried out under the coordination of the Institute Technology and Education (ITB) of the University of Bremen between October 2007 and December 2009. The project aimed to identify, test and transfer innovative instruments based on the principles of the EQF and the ECVET that could be used for the recognition and accreditation of learning outcomes from initial and continuing vocational education and training for further education. These instruments and procedures for the identification of level, workload and equivalence of learning outcomes were

- 1 Cf. Recommendation of the European Parliament and of the Council of 23 April 2008, OJ C 111 of 6.5.2008.
- 2 Cf. Recommendation of the European Parliament and of the Council of 18 June 2009, OJ C 155 of 8.7.2009.
- 3 See <http://www.credivoc.eu/>.

to be studied in selected occupational fields in the engineering in technology sector with a view to further development and transfer into other national and/or sectoral contexts. The present volume is a key output of these activities.

The investigation and piloting of the accreditation instruments and procedures was carried out by a transnational consortium that was composed of partners from Austria, Finland, France, Germany and Ireland. Apart from the coordinator ITB, the following institutions were involved in the consortium as core research partners:

- 3s research laboratory, Vienna, Austria;
- Finnish Institute for Educational Research, University of Jyväskylä, Finland;
- University of Strasbourg, BETA/Céreq Alsace, France;
- Carl von Ossietzky University of Oldenburg, Germany;
- Dublin City University, School of Education Studies, Ireland.

The core partners were supported in their countries by institutions of (continuing) vocational education and training and organisations of the social partners, who participated in the consortium as implementing partners at the regional level.

The contributions to the present publication are based on the case studies and piloting activities carried out during the second phase of the CREDIVOC project. In the first project phase (2007–2008) a state of the art report on the situation concerning the accreditation of prior learning has been prepared, which gave a picture of the different systems, strategies and instruments of accreditation.⁴ In France and Ireland there are well-established procedures, namely the Validation of Acquired Experience (VAE) and the Accreditation of Prior (Experience) Learning (AP(E)L). In Austria, Germany and Finland, on the other hand, no commonly accepted procedures are in place yet, but there are promising initiatives. In Germany the Federal Ministry of Education and Research (BMBF) initiated a cluster on “Learning Pathways from Vocational Education to Higher Education” (ANKOM initiative) in 2005.⁵ In this initiative different instruments for the accreditation of vocational learning outcomes for higher education have been developed. One example is the “Module Level Indicator” (MLI) developed by the University of Oldenburg, which is also discussed in this volume. In Austria

4 Cf. Tutschner, Wittig & Rami (eds.) (2009).

5 See <http://ankom.his.de/>.

there exists an informal practice of accreditation of vocational learning outcomes to study programmes at a university of applied sciences in Vienna.

In the second phase of the project (2008–2009), which was concerned with the identification of good practice and the examination and evaluation of selected instruments and procedures, national in-depth case studies and piloting activities, e.g. an exemplary equivalence check by means of the MLI between a VET programme and a higher education programme in mechanical engineering in Germany, were carried out. The results of these case studies are presented in this volume. The chapters present empirical evidence concerning the performance of the accreditation procedures investigated and piloted, and discuss possible implications and perspectives for the further development and European transfer of these instruments. These results and reflections are expected to contribute to the overall debate on the transparency and recognition of learning outcomes and to support the formulation of policy recommendations.

The first chapter by Wolfgang Müskens (University of Oldenburg), Roland Tutschner and Wolfgang Wittig (ITB) presents an exemplary case of the application of the “Oldenburg Model” of accreditation through equivalence checks by means of the MLI. In the course of the CREDIVOC project this procedure, which had been developed with a view to business education, was applied for the first time in the field of engineering and technology. The focus of this chapter is on the comparative assessment of a continuing VET programme and a higher education programme in mechanical engineering. The equivalence check was carried out with the aim to determine whether and to what extent learning outcomes from the VET programme might be accredited for a relevant degree programme so that the holders might be exempted from certain modules. In the chapter the theoretical background and methodology of the equivalence check are described, and the empirical results of its application in this specific case are presented together with methodological and practical conclusions.

The following chapter by Monika Prokopp and Karin Luomi-Messerer (3s research laboratory) presents the results of the Austrian case study on the accreditation practices at a university of applied sciences in Vienna. Graduates of certain VET colleges can be exempted from the first year of the degree programme after an equivalence check is done by lecturers, teachers and directors from the institutions involved. The analysis of the case study reveals that the existing practice is rather informal and exemptions from certain courses are individualised. The accreditation practice is to a certain extent based on

trust in the students' competences and cooperation at an institutional level, and the results show how permeability can be fostered on an institutional level within the existing organisational framework. In the Austrian case, no particular tools or instruments for carrying out the equivalence check exist. Therefore the perspectives for applying the MLI in the accreditation practices at Austrian universities of applied sciences are also discussed.

The topic of the chapter by M'Hamed Dif, Jean-Alain Heraud and Paul Nkeng (University of Strasbourg) is the VAE (Validation of Acquired Experience) procedure in France. The VAE is a transparency and recognition instrument for vocational qualifications, which establishes the individual's right to access to guidance, identification, assessment and accreditation of their prior experiential learning outcomes. As it leads to commonly accepted certifications within the national qualification system, the VAE is considered to contribute effectively to the development of permeability and complementarity within and between the different sectors of the education and training system. The first section of the chapter is an overall introductory overview of the VAE implementation procedure and its functioning within the national qualification and certification system. The second section presents and analyses the results and implications of the case study investigation, whose focus is on the access of technicians to the VAE regime in science and technology programmes at the university level.

The chapter by Marja-Leena Stenström (University of Jyväskylä) discusses the process of individualisation (i.e. an individually customized learning process on the basis of personal needs) as a tool for the validation of prior learning in Finnish adult education and as a process of entering higher education. The chapter is based on the Finnish case study, which was implemented through interviews with teachers and supervisors in adult education, and through the analysis of documents related to validation and recognition. The individualisation process includes three phases, namely identification, demonstration and recognition. Each phase is recorded into a document that can be used for follow-up purposes and quality assurance.

Finally the chapter by Justin Rami and John Lalor (Dublin City University) presents the recognition and accreditation of prior learning in the engineering sector in Ireland. The chapter first gives an overview of the current situation concerning the assessment of learning outcomes in vocational education and describes developments with regard to the tools and instruments aligned with current legislation. The National Framework of Qualiifications (NFQ) as well as

the Accreditation of Prior (Experience) Learning (AP(E)L) policy of the National Qualifications Authority of Ireland are examples of these instruments. The chapter then presents the results of empirical research through a case study in the Irish engineering sector that examines how the instruments for the recognition and accreditation of prior learning work in practice.

References

- Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning. *Official Journal of the European Union C 111 of 6.5.2008, pp. 1–7.*
- Recommendation of the European Parliament and of the Council of 18 June 2009 on the establishment of a European Credit System for Vocational Education and Training (ECVET).* Official Journal of the European Union C 155 of 8.7.2009, pp. 11–18.
- Tutschner, Roland; Wittig, Wolfgang; Rami, Justin (2009): *Accreditation of Vocational Learning Outcomes: Perspectives for a European Transfer*, ITB-Forschungsberichte 43/2009, Bremen: Institut Technik und Bildung (ITB), Universität Bremen. Online: <http://nbn-resolving.de/urn:nbn:de:gbv:46-ep000106120>

Improving Permeability through Equivalence Checks: an Example from Mechanical Engineering in Germany

Wolfgang Müskens, Roland Tutschner, Wolfgang Wittig

1. Introduction

In this chapter we present an exemplary case of the application of an innovative model for the “blanket recognition” of vocational learning outcomes in the transition from continuing vocational education and training to higher education. In the course of the CREDIVOC project the equivalence check according to the “Oldenburg Model” of accreditation, which had been developed with a view to training and degree programmes in business administration, was applied for the first time in the field of engineering and technology. This pilot study was the core of the German transfer activities within the CREDIVOC project.

The topic of the study presented here is the comparative assessment of a continuing VET programme and a higher education programme in the field of mechanical engineering. The equivalence check was carried out with the aim to determine whether and to what extent learning outcomes from the VET programme might be accredited for a relevant degree programme so that holders of the vocational qualification in question might be exempted from certain modules in higher education. The study was implemented by the two German research partners in the CREDIVOC project, the Institute Technology and Education (ITB) of the University of Bremen and the Carl von Ossietzky University of Oldenburg, and the institutions responsible for the two programmes, the Technikakademie Weilburg and the Hochschule RheinMain University of Applied Sciences.

In the following we first describe the theoretical framework of the study and explain in particular the concepts of blanket recognition and the methodology of the equivalence check. We then present the two programmes in mechanical engineering that were chosen as the subject of our study and explain the overall background as well as the concrete institutional settings. The main part of the chapter is then concerned with the implementation of the equivalence check and the presentation of the empirical results. In the final section the

methodological and practical conclusions to be drawn from the results are discussed.

2. Blanket Recognition and Equivalence Checks

The relationship between vocational and higher education as well as the issue of permeability between these educational sub-systems has been put on the political agenda by European initiatives that are commonly known as the Bologna and Copenhagen processes. The facilitation of educational mobility and lifelong learning are key elements of these strategies. In Germany, unlike many other European countries, the transition from vocational education to higher education is still significantly impeded by the fact that the two educational sub-systems are largely independent of each other and recognition of learning outcomes achieved in VET is possible only in rare and exceptional cases. In some respects this poses a challenge for the German education and training system.

As regards the perspective of higher education institutions it can be expected that they will increasingly have to resort to students or applicants with a background in vocational education and training. One reason is that the proportion of school-leavers who directly enter the university is lower than in other European countries so that the higher education system can hardly satisfy the needs of the labour market, especially in science and engineering. Many school-leavers who are qualified for higher education make their decision for vocational education and training instead, but may be interested entering university at a later date to continue their education. These people face the risk of losing time when their prior knowledge and skills are not recognised so that they have to start their studies completely anew.¹ From the point of view of vocational education and training the situation is unsatisfactory as vocational programmes tend to be “dead ends” when it comes to the transition to higher education. This means that VET programmes become less attractive for more ambitious learners, who find themselves unable to valorise their professional knowledge in higher education. The experience of other countries suggests that this could give rise to a devaluation of vocational education in terms of career prospects. The effect would be an “academic drift” by which education

1 Cf. Hanft et al. (2008), 297–299.

for the world of work would increasingly shift to the higher education system, leaving VET in a residual position.

In response to this problem a decision by the German Conference of Education Ministers (KMK) of 28 June 2002² for the first time addressed the recognition of non-academic learning outcomes in higher education. This decision laid the foundations for the accreditation of vocational learning outcomes by stipulating that “knowledge and skills acquired outside the higher education system can be accredited for a higher education programme on the basis of a [...] level assessment when their content and level is equivalent to the part of the study programme that is to be replaced”. According to the KMK decision, a maximum of 50% of a higher education programme can be replaced with knowledge and skills acquired elsewhere. In the following year this general decision was further specified by a joint recommendation of the Federal Ministry of Education and Science, the German Rectors’ Conference and the KMK dated 8 July 2003, which emphasised that especially advanced vocational qualifications obtained in continuing vocational education and training are suitable for accreditation and recommended the awarding of ECTS points for these qualifications.³

The implementation of this objective, however, faces difficulties that result from the fact that vocational education and higher education differ significantly as regards the nature of their learning outcomes. The learning outcomes of university programmes typically relate to “academic” competences like reflection, analytical and critical thought, identification of new research problems and the development of new theories, models and instruments for research. Continuing vocational education and training, on the other hand, aims predominantly at professional knowledge and skills. The knowledge acquired is supposed to be immediately applicable in practice. The methods and the underpinning models are not called into question or critically reflected upon. Practical work experience and the contents of the continuing training programme supplement each other, and the training contents are oriented towards the professional practice.

These differences can be taken into account by special procedures and instruments for the recognition of learning outcomes. In the design of these procedures two basic approaches can be distinguished, namely *individual recogni-*

2 Cf. KMK (2002a); see also KMK (2008).

3 Cf. HRK (2003).

tion and *blanket recognition*. Individual recognition means that students are given the opportunity to demonstrate their knowledge and skills acquired in formal, non-formal or informal learning processes and to have these learning outcomes recognised as equivalent to a certain module or course. To this end, the knowledge and skills in question are individually assessed on the basis of a portfolio of authentic documents and critical reflections of their learning experience together with a complex assignment (e.g. an essay on a relevant topic). The individual recognition of learning outcomes according to this module requires considerable efforts both for the learners and for the teaching staff. The preparation and evaluation of a learning portfolio make it necessary for the actors involved to familiarise themselves with the portfolio method, and a substantial amount of guidance is required for those learners and teachers who undergo such a procedure for the first time.⁴

Another approach is followed by the model of blanket recognition. “Blanket” or “systemic” recognition is a procedure in which the general accreditation of a specific (advanced) vocational qualification is checked on a one-off basis for all graduates. The recognition and the associated shortening of the following higher education programme are based on learning outcomes that are supposed to have been attained by *all* holders of the vocational qualification in question alike. Blanket recognition therefore has the following features:

- Students who have already completed certain vocational training programmes are exempt from taking modules containing learning outcomes that were already acquired during vocational training.
- The university only once checks the correspondence between the learning outcomes from vocational and higher education. Based on the results of this “equivalence check” the university decides which modules students with a certain vocational qualification can be exempt from taking.
- The university grants the blanket recognition to any holder of the vocational qualification.

A procedure to put this model of blanket accreditation into practice is the method of the so-called *equivalence check*, which builds upon the results of the “Network for Qualification North West”, a project carried out within the na-

4 Cf. Hanft et al. (2008), 302–303.

tional ANKOM initiative of the Federal Ministry of Education and Research⁵ and the European HE_LeO project.⁶ The equivalence check allows for a systematic comparison and a blanket recognition of learning outcomes on a transparent and scientifically valid basis. According to this “Oldenburg Model” of accreditation the equivalence check is carried out by independent experts or evaluators who comparatively assess the vocational qualification and the degree programme in terms of content and level.⁷ This means that the experts have to assess

- the extent to which the contents of the module are covered by learning outcomes of the vocational qualification and
- whether the level of the learning outcomes and skills to be accredited corresponds to the level of the study module.

In order to be recognised, both the level and the content of learning outcomes must correspond to each other. The correspondence of learning outcomes in terms of content is assessed by a tool for the systematic comparison of (subject-specific) learning outcomes, the Learning Outcome Matrix (LOM), which was developed in the HE_LeO project. The LOM is a spreadsheet template completed by the evaluators for each module to be checked for accreditation purposes. The evaluator enters the following data into the Learning Outcome Matrix:

- the title of the module for which the accreditation is carried out;
- the titles of the subjects where the learning outcomes to be accredited come from;
- the learning outcomes of the module;
- a weighting of the significance of the individual learning outcomes;
- the individual levels of correspondence of learning outcomes.

The LOM calculates the degree of correspondence between the study module and the vocational subjects as well as the overall level of correspondence resulting from these details, i.e. the proportion of all subject-specific learning outcomes of a module already covered by prior vocational training. The matrix then represents this overall level of correspondence in a star scale that is dis-

5 See <http://www.web.uni-oldenburg.de/anrechnung/> and <http://ankom.his.de/>.

6 See <http://www.he-leo-project.eu/>.

7 Cf. Müskens (2006).

played in a synoptical table.⁸ An example of its application is given in the section on the implementation of the equivalence check.

The second component of the equivalence check is an instrument for the comparative assessment of the level of learning outcomes, the Module Level Indicator (MLI). It is based on the ANKOM project “Network for Qualification North West”. The MLI allows for the assessment of learning outcomes according to 51 items or criteria that are derived from the level descriptors of the European Qualifications Framework (EQF). These 51 items are aggregated to the following result scales:

- scope and topicality of knowledge;
- critical understanding;
- interdisciplinarity;
- problem solving;
- practice orientation;
- innovation;
- autonomy;
- communication and
- consideration of social and ethical issues.

As regards the relationship between these scales and the EQF descriptors, the first three scales represent the “knowledge” dimension, the following three correspond to the “skills” dimension and the last three represent the “competence” dimension.⁹ The application of this instrument is also described in the section on the implementation of the equivalence check.

3. An Exemplary Case in Mechanical Engineering: “Staatlich geprüfte/r Techniker/in” and Bachelor of Engineering

In the course of the CREDIVOC project the procedure of equivalence check according to the “Oldenburg Model”, which had been implemented before in the comparison of advanced vocational qualifications and degree programmes in

⁸ Cf. Müskens, Müskens & Hanft (2008), 104–107.

⁹ For a detailed description of the MLI and the development of the criteria see Müskens, Tutschner & Wittig (2009), 85–97.

business education,¹⁰ was tested for the first time in the domain of engineering and technology. The two programmes involved were the continuing training programme for state-certified engineers (*Staatlich geprüfte Techniker/innen*) in machinery design at the Technikakademie Weilburg and the Bachelor of Engineering in mechanical engineering at the Hochschule RheinMain University of Applied Sciences.

The degree of state-certified engineer is a school-based qualification within the system of continuing vocational education and training that can be obtained at technical colleges (*Fachschulen*), which build upon a completed programme of initial VET (either dual apprenticeship training or school-based training). The mission of these colleges is to qualify skilled workers with some work experience for management functions and/or the independent exercise of complex and sophisticated work tasks.¹¹ The continuing training for state-certified engineers lasts four semesters and takes place in full-time programmes of two years or in four-year part-time programmes. Although the curricula vary between the different federal states (*Länder*), the training programme comprises a minimum of 2,400 hours of instruction.¹²

The programme for state-certified engineers in the domain of machinery design (*Konstruktion*) at the Technikakademie Weilburg,¹³ a technical college with approximately 500 students located in the federal state of Hessen, is a full-time programme of two years. The curriculum is standardised for all technical colleges in this state. It consists of 3 general learning units “Language and Communication”, “Society and Environment” and “Human Resources Development”, 11 specific units, and 4 optional units. The specific learning units are “Mathematics” and 10 so-called *Lernfelder* (areas of training or learning fields). These areas of training are not titled by nouns (like “Project Management”) but by infinitive phrases like “to complete orders using methods of project management”. Each learning field is a combination of contents from a variety of subjects.

10 Cf. Hanft et al. (2008); Müskens, Müskens & Hanft (2008).

11 Cf. KMK (2002b), point 4.1.

12 For further information on the legal framework and the general organisation of these training programmes see Müskens, Tutschner & Wittig (2009), 79–82.

13 See <http://www.ta-weilburg.de/> (12.11.2009).

Figure 1

Structure of the programme in machinery design at Technikakademie Weilburg

Learning Units

• **General Units**

Language and Communication

Society and Environment

Human Resources Development

• **Specific Units**

Mathematics

• **10 Areas of training (“Lernfelder”)**

“to complete orders using methods of project management”

“to analyse and construct components and assemblies“

“to integrate drives and sensors in machines“

“to produce components economically“

...

• **Optional Units**

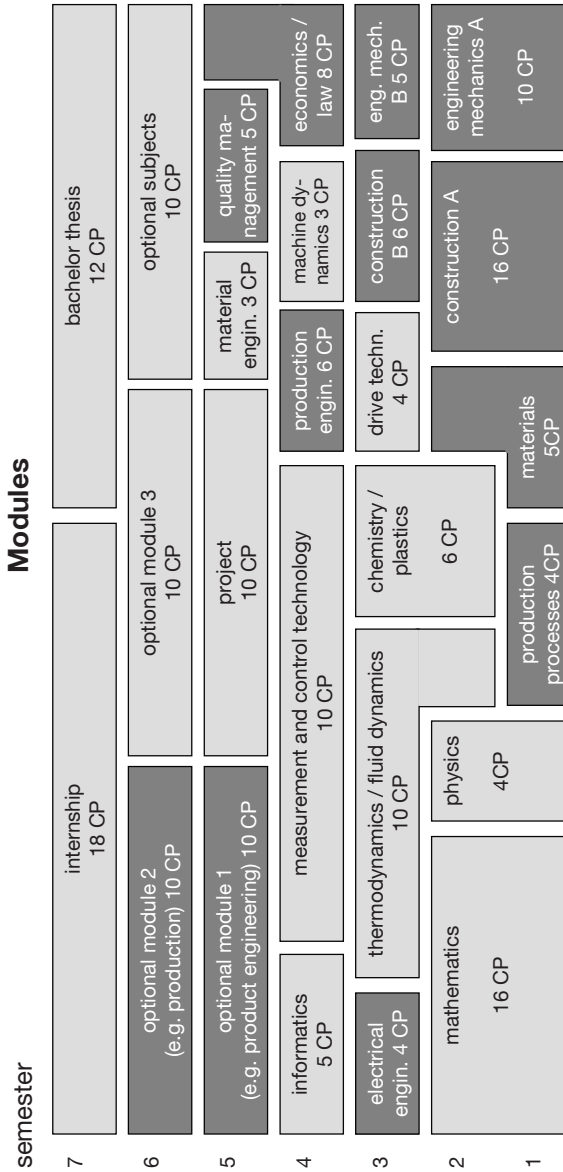
Source: own work

The target programme for the exemplary equivalence check was a relevant higher education programme, more specifically a degree programme at a university of applied sciences. The programme “Mechanical Engineering” at the Hochschule RheinMain University of Applied Sciences in Wiesbaden was chosen for this purpose. This three-and-a-half-year programme with a total value of 210 credit points, which leads to the degree of Bachelor of Engineering (B.Eng.), is composed of a total of 26 study modules including an internship in an enterprise and the bachelor thesis.¹⁴ A prerequisite of the equivalence check was the identification of those modules where an accreditation of learning outcomes from the vocational qualification of *Staatlich geprüfte/r Techniker/in* in machine

14 See <http://www.hs-rm.de/ing/bachelorstudiengaenge/maschinenbau-beng/index.html> (12.11.2009).

Figure 2

Structure of the B.Eng. “Mechanical Engineering” at Hochschule RheinMain



Source: own work

design might be theoretically plausible. This was done on the basis of the available module descriptions before the actual implementation of the equivalence check. The overall structure of the B.Eng. programme and the modules pre-selected for the equivalence check are presented in Figure 2.

The vocational qualification of state-certified engineer was chosen as an example for two main reasons. On the one hand, this profile plays a significant role within the German employment system. On the other hand, the linkage design might be theoretically plausible. This was done on the basis of the available of this qualification to further education seems to be underdeveloped so that permeability and career progression are problematic for this target group. In general, state-certified engineers are practice-oriented senior staff at the level of middle management. Originally this vocational profile was created as a link between master craftsmen on the one hand and engineers with a higher education degree on the other. State-certified engineers also compete with these two groups for career advancement in the company. After the reorganisation of higher education programmes in the course of the Bologna Process the qualification of *Staatlich geprüfte/r Techniker/in* has to be ranked between the levels of master craftsman and Bachelor. State-certified engineers are favoured by employers for specialised tasks in the production process while junior and middle management positions are preferably filled with master craftsmen or foremen.¹⁵

It is estimated that between 1970 and 2006 up to 30,000 state-certified engineers were trained per year at roughly 800 colleges in Germany. Accordingly the total size of this occupational group can be estimated at 750,000 to 1,000,000.¹⁶ However, the statistical figures of the last years show that in the meantime the number of graduates per year has dropped to less than 20,000.¹⁷ As shown in the table below, the profile nevertheless continues to play an important role among the vocational qualifications and higher education degrees in the engineering sector.

15 Cf. Jansen, Hecker & Scholz (1998).

16 Cf. <http://www.techniker-forum.de/news-24/bildungsgipfel-einladung-26-04-05-weilburg-6237.html>, accessed 19.05.2008.

17 Cf. Statistisches Bundesamt (2007a), tab. 8.8.

Table 1

Graduates in engineering and technology occupations (2006)

| Qualification | Number of graduates |
|--|---------------------|
| Fachwirt Technik (IHK) | 1,072 |
| Technischer Fachwirt (HwK) | 3,821 |
| Industriemeister IHK (all domains including foremen) | 7,439 |
| Master craftsman | 21,111 |
| Engineer (university of applied sciences) | 20,917 |
| Engineer (university) | 9,463 |
| Staatlich geprüfter Techniker | 14,589 |

Source: Statistisches Bundesamt (2007a); (2007b); (2007c)

The qualification of *Staatlich geprüfte/r Techniker/in* can be achieved in a variety of disciplines, which are often further divided into sub-disciplines. The Federal Employment Agency distinguishes 77 disciplines in which state-certified engineers are trained, 15 of which are characterised by a division into sub-disciplines. The top rank is held by the field of mechanical engineering, which is divided into 13 sub-disciplines (including one non-specialised profile). When all these specialised disciplines are taken into account and overlaps are excluded, a total of 139 profiles for state-certified engineers can be identified.¹⁸

A problem with respect to the career prospects of state-certified engineers is the insufficient permeability from this particular qualification to higher education. After completion of their continuing training programme state-certified engineers in principle have access to universities of applied sciences. However, in the absence of adequate provisions for the accreditation of prior learning they have to start any degree programme from the very beginning without having the opportunity to have their relevant knowledge and skills recognised. This renders the transition from this type of continuing vocational education and training to higher education unattractive, and the lack of recognition is also regarded as a symptom of a general underrating and devaluation of vocational education in comparison to academic or higher education.¹⁹

¹⁸ BERUFENET database, <http://berufenet.arbeitsagentur.de/>, accessed 26.05.2008.

¹⁹ Cf. Müskens, Tutschner & Wittig (2009), 83–84.

In order to investigate the situation of the target group in more detail we carried out a simple quantitative survey among the students of the Technikakademie Weilburg prior to the equivalence check. Topics of the survey were the students' educational background and their attitudes towards continuing professional development with a view to the potential benefit of the accreditation of prior learning. The survey was implemented at the Technikakademie Weilburg in June and July 2008. The questionnaire was developed by ITB and distributed by the Technikakademie Weilburg, which, for reasons of data protection, was also responsible for entering the responses into the data set. The analysis of the completed data set was carried out by ITB.

A total of 228 students participated in the survey, of whom 23 were in the first, 113 in the second, 19 in the third and 69 in the fourth semester. The distribution across the different vocational subjects trained at Technikakademie Weilburg was fairly equal. The majority of respondents (63.6%) were between 20 and 25 years old, and their average work experience before starting this continuing vocational training programme was 2.8 years.

On the whole the results of the survey indicate a relatively low motivation for higher education in the sense that most of the respondents, when asked about their plans after the completion of their continuing training, reply that they intend to work in their profession as state-certified engineers (71.9% of valid cases, N = 196) and only a minority considers enrolment in a higher education programme. The intention to study is strongest in the age group between 20 and 25 years as shown in the following table. At the same time the number of those who are in principle "interested" in higher education is much higher (N = 160) than the number of respondents who actually plan to enrol. This discrepancy can be interpreted as indicating a lack of adequate higher education opportunities for people with an already ongoing professional career.

Table 2

Objectives after the completion of the training programme by age

Percent of valid cases (N = 196)

| | 20-25 | 26-30 | 31-35 | 36-40 | Total |
|--|--------------|--------------|--------------|--------------|--------------|
| Work in the profession | 63.4 | 85.7 | 83.3 | 100.0 | 71.9 |
| Work in the profession and perhaps study at a later date | 24.4 | 7.1 | 8.3 | 0.0 | 17.9 |
| Work in the profession and study part-time | 5.7 | 5.4 | 8.3 | 0.0 | 5.6 |
| Study full-time | 6.5 | 1.8 | 0.0 | 0.0 | 4.6 |

Source: own work

The crucial question with regard to permeability and progression is whether a shortening of higher education programmes through the accreditation of learning outcomes from the continuing training programme could have a motivating effect in the sense that the interest in higher education is transformed into a concrete intention to start a degree programme. This seems to be the case as a clear majority of the respondents (65.7%, N = 198) indicate that for them an accreditation of their prior learning would be an incentive for enrolment. This motivating effect is also declining with increasing age and is strongest among the respondents between 20 and 25 years. Moreover, the accreditation of prior learning is an incentive especially for those who are specifically interested in a part-time degree programme alongside the job. Here the proportion of those who would be motivated is 90.0% compared to 80.5% among those interested in full-time study and 75.0% among those who would prefer distance education (N = 142).

Table 3

Motivating effect of accreditation of prior learning by age

Percent of valid cases (N = 198)

| | 20-25 | 26-30 | 31-35 | 36-40 | Total |
|--|-------|-------|-------|-------|-------|
| Accreditation would be an incentive to enrol in HE | 74.0 | 53.6 | 50.0 | 50.0 | 65.7 |
| Accreditation would not be an incentive | 26.0 | 46.4 | 50.0 | 50.0 | 34.3 |

Source: own work

A similar but less clear tendency appears when the motivating effect is plotted against the professional experience. The proportion of those who would be motivated by accreditation declines from 78.3% at the beginning of the career to 54.4% at an experience of up to 5 years, but rises again to figures above 60% among those with more years of experience (N = 197). When respondents are grouped according to their last occupational position it turns out that among the foremen the share of those who would be motivated by accreditation is much higher (75.0%) than among the skilled workers (64.8%) while their actual intention to study is much lower. It can be assumed that the willingness to embark on a “conventional” higher education programme declines as people advance in professional experience and position while at the same time opportunities for the accreditation of prior learning become more important (N = 172).

The main conclusion from the survey is that advancing professional development goes along with an increasing preference for measures to support the compatibility of work and learning (e.g. part-time programmes and shortening of programmes through accreditation of prior learning), and that the current opportunities in this field are still inadequate. The accreditation of learning outcomes from the qualification of *Staatlich geprüfte/r Techniker/in* for appropriate higher education programmes and the corresponding perspective for improved permeability therefore would meet the actual needs of the target group.

4. Implementation of the Equivalence Check

After the results of the survey had been presented at the Technikakademie Weilburg in the autumn of 2008 it was finally agreed that an equivalence check be carried out between the machinery design branch of the training programme for *Staatlich geprüfte Techniker/innen* and an appropriate degree programme in mechanical engineering at a university of applied sciences. Following further discussion with the Hochschule RheinMain University of Applied Sciences in Wiesbaden, which had been cooperating with the technical college in Weilburg before, their Bachelor of Engineering programme in mechanical engineering was chosen as the target programme. This decision was based on the estimation of the experts at both institutions that the contents of these programmes were likely to have the greatest overlaps in terms of content and possibly of level. It was also backed by the preference expressed in the survey of the students in Weilburg where a considerable proportion of the respondents (12.7%) had named mechanical engineering as the subject they would like to study at the level of higher education.

In the first, preparatory phase of the equivalence check, which took place in early 2009, the modules of the B.Eng. programme that were to be included in the comparative assessment of content and level were pre-selected. An expert at the Institute Technology and Education checked the module descriptions supplied by the Hochschule RheinMain and the syllabuses for the machinery design programme at Technikakademie Weilburg in order to identify those modules that were most likely to be (partly) covered by learning outcomes from the continuing vocational training programme. As already mentioned in the previous section, ultimately the following 12 modules of the Bachelor programme were selected for inclusion in the equivalence check:

- production processes (4 credit points);
- materials (5 CP);
- construction A (16 CP);
- construction B (6 CP);
- engineering mechanics A (10 CP);
- engineering mechanics B (5 CP);
- electrical engineering (4 CP);
- production engineering (6 CP);
- economics/law (8 CP);
- quality management (5 CP);

- optional module 1 (e.g. product engineering) (10 CP);
- optional module 2 (e.g. production) (10 CP).

After this decision the access to the relevant sources of information for the equivalence check was organised. The comparative assessment of content and level was to be based on an extensive written documentation of the learning outcomes to be expected from all persons successfully participating in the two programmes. This documentation was made up of various materials like curricula, module descriptions, scripts and other teaching materials, written documentations of work assignments, exams and the like. These materials were compiled by the two institutions concerned and delivered to the project team during the spring of 2009. At the same time the project team, in close co-ordination with the two institutions, appointed an independent expert to carry out the two steps of the equivalence check described above, i.e. the comparison of learning outcomes and the level comparison. The criteria for the selection of the evaluator were his expertise in the field and his neutral position with respect to the technical college and the university of applied sciences. The expert was briefed in the methodology of the evaluation tools in a meeting with the project team at the Technikakademie Weilburg and evaluated the documents supplied by the two institutions in July 2009.

The first step of the implementing phase was the content assessment, i.e. the comparison of subject-specific learning outcomes. The learning fields related to the qualification of state-certified engineer and the selected modules of the Bachelor of Engineering programme were compared by means of the Learning Outcome Matrix (LOM). The evaluator first identified the learning outcomes for the Bachelor modules on the basis of the available documents. He then used the LOM to determine the extent to which the learning outcome of each module was covered by learning outcomes from the vocational training programme. For each of the 12 pre-selected modules one LOM sheet was filled in. The results were then aggregated as described above and transferred to a synoptical table. The learning outcomes of 9 of the 12 pre-selected bachelor modules were covered substantially by learning outcomes from the vocational qualification of *Staatlich geprüfte/r Techniker/in*. These 9 modules are listed in the synoptical table shown below.

Figure 3

Synoptical table: correspondence of subject-specific learning outcomes

| Bachelor of Engineering (University of Applied Sciences) Learning units "Techniker" (VET) | Electrical Engineering | Production Processes | Construction A | Construction B | Product Engineering | Quality Management | Engineering Mechanics A | Engineering Mechanics B | Materials |
|--|------------------------|----------------------|----------------|----------------|---------------------|--------------------|-------------------------|-------------------------|-----------|
| | Project Management | | | | | x | | | |
| to analyse and construct components and assemblies | | | | | | | x | xx | |
| to integrate drives and sensors in machines | xxxx | | | | | | | | |
| to produce components economically | | xxx | | | | | | | |
| to communicate and present | | | xx | | | | | | |
| to construct technical products methodically | | | x | xx | | | | | |
| to organise and control development processes | | | | | | xxx | | | |
| ∑ | xxxx | xxx | xxx | xx | x | xxx | x | xx | |

learning outcome coverage:
x ≥ 20%
xx ≥ 40%
xxx ≥ 70%
xxxx ≥ 90%

Source: own work

As a rule, modules with a coverage of learning outcomes of at least 70% can be recommended for accreditation (i.e. students with the vocational qualification in question would be exempt from taking these modules), provided that the level of learning outcomes from the corresponding vocational learning units is equivalent. Therefore a level comparison of study modules and vocational learning units was carried out by the expert evaluator as the second step of the equivalence check.

The level comparison took place with the help of the Module Level Indicator (MLI), which was described above. However, the evaluator had difficulties to rate certain items related to the scales of “communication” and “consideration of ethical and social issues” on the basis of the material at hand. Therefore these scales were not calculated for this equivalence check. The remaining seven scales were again aggregated into one total score. The value of the total score corresponds to the reference levels of the EQF.

An example of this procedure, which was carried out for each of the learning units and modules included in the equivalence check, is the comparison of the learning unit “to integrate drivers and sensors in machines” from the continuing vocational training programme for state-certified engineers and the corresponding module “electrical engineering” within the Bachelor of Engineering programme. Their scores for the MLI scales and the total level assessments derived from these scales led to the result that the level of this vocational learning unit even exceeded the level of the corresponding academic module as shown below. Accordingly this module was recommended for accreditation.

Table 4

Level comparison of two learning units by means of the MLI

Scores on the MLI scales and aggregated scores

| MLI scale | VET learning unit “to integrate drivers and sensors” | B.Eng. module “electrical engineering” |
|-----------------------------------|---|---|
| Scope and topicality of knowledge | 4.7 | 4.3 |
| Critical understanding | 3.9 | 3.9 |
| Interdisciplinarity | 3.4 | 3.4 |
| Problem solving | 3.9 | 3.4 |
| Practice orientation | 6.3 | 5.2 |
| Innovation | 2.5 | 2.5 |
| Autonomy | 4.8 | 4.1 |
| Total MLI value (= EQF level) | 4.1 | 3.8 |

Source: own work

After reviewing the materials supplied by the two institutions and filling in the LOM and MLI forms the evaluator reported to the project team, and the project partner University of Oldenburg carried out the final aggregation and analysis of the data and prepared the recommendations for accreditation. The final result of the equivalence check, i.e. the results of all learning outcome and level comparisons, is shown in the synoptical table below.

Figure 4

Synoptical table with results of level comparisons

| Bachelor of Engineering (University of Applied Sciences) Learning units "Techniker" (VET) | Electrical Engineering | Production Processes | Construction A | Construction B | Product Engineering | Quality Management | Engineering Mechanics A | Engineering Mechanics B | Materials |
|--|------------------------|----------------------|----------------|----------------|---------------------|--------------------|-------------------------|-------------------------|-----------|
| Project Management | | | | | x | | | | |
| to analyse and construct components and assemblies | | | | | | | x | xx | |
| to integrate drives and sensors in machines | xxxx | | | | | | | | |
| to produce components economically | | xxx | | | | | | | |
| to communicate and present | | | xx | | | | | | |
| to construct technical products methodically | | | x | xx | | | | | |
| to organise and control development processes | | | | | | xxx | | | |
| Σ | xxxx | xxx | xxx | xx | x | xxx | x | xx | |

Level:

- VET>Uni
- Uni-VET<0,5
- 0,5<Uni-VET<1,0
- n.a.

learning outcome coverage:

- x** ≥ 20%
- xx** ≥ 40%
- xxx** ≥ 70%
- xxxx** ≥ 90%

Source: own work

A module in the Bachelor of Engineering programme is recommended for accreditation when at least 70% of its content is covered by learning units from

the vocational programme and when the level of the Bachelor module does not exceed the level of the corresponding vocational learning unit(s) by more than 0.5. As mentioned before, the equivalence check indeed identified learning units in the training programme for state-certified engineers that not only meet these requirements, but sometimes even have a higher level than the corresponding Bachelor modules.

According to the results of the equivalence check the following modules of the Bachelor of Engineering programme can be recommended for immediate accreditation:

- electrical engineering (4 CP);
- production processes (4 CP);
- quality management (5 CP).

The content of the module “electrical engineering” is covered to more than 90% by the learning outcomes of the vocational learning unit “to integrate drivers and sensors in machines”. The two other modules are covered to more than 70% each by corresponding learning units. As regards the level, the result is that in the case of “electrical engineering” and “quality management” the corresponding vocational learning units exceed the level of the Bachelor programme while in the case of “production processes” the level of the Bachelor module is higher, but the difference is not greater than 0.5. Accordingly the criteria for accreditation are fully met in the case of these three modules.

The equivalence check also shows that another four modules might be considered for accreditation after some minor adjustments of the corresponding learning units in the vocational training programme. These adjustments concern both the content and the teaching methods. The modules in question are the following:

- construction A (16 CP);
- construction B (6 CP);
- engineering mechanics A (10 CP);
- engineering mechanics B (5 CP).

While the content of the “construction A” module is already covered to more than 70% by the vocational learning units “to communicate and present” and “to construct technical products methodically” so that only the level of these units needs to be enhanced, the situation is exactly the opposite in the case of the “engineering mechanics A” module. Here the level of the corresponding VET learning unit is sufficient, but the coverage of content (39%) is not. The accreditation of the two other modules would require that the corresponding vocational learning units be enriched both in terms of content and level. The project team will give advice to the Technikakademie Weilburg concerning the curriculum design for these learning units.

As an overall result the equivalence check leads to the conclusion that students who have completed the vocational qualification of *Staatlich geprüfte/r Techniker/in* can have at least 13 credit points awarded for their vocational knowledge and skills in the B.Eng. programme. These 13 credit points are the equivalent of the three modules from which they can be exempted according to the results of the equivalence check. In the event that the VET learning units that correspond to the other four modules are modified as recommended, the total value of vocational learning outcomes recognised within the Bachelor programme would rise to a maximum of 50 credit points out of 210. This shows that the accreditation of learning outcomes from this continuing VET programme has the potential for enhancing permeability by substantially shortening the time to be spent on a subsequent higher education programme.

The practical implementation of this accreditation after the completion of the equivalence check is now up to the educational institutions involved. The recommendation for accreditation has been communicated by the project team to the Hochschule RheinMain and the Technikakademie Weilburg, and the results were presented in a meeting with representatives of the two institutions in November 2009. On the part of the Hochschule RheinMain the responsible bodies will have to decide whether the recommendation is adopted and if so, formulate the necessary amendments of the admission policy. If there is the wish to exploit the full potential for accreditation as identified by the equivalence check, the Technikakademie will have to consider modifications in its training programme, in which case it might also have to seek the approval of its supervisory body, the Ministry of Education. The project team can support this process by giving advice.

5. Conclusions and Outlook

The exemplary application of the equivalence check in two mechanical engineering programmes that was presented in this chapter has shown that this method of blanket recognition has the potential of substantially improving the permeability between vocational and higher education. Learning outcomes from vocational education programmes in the German system of continuing vocational education and training can be valorised in higher education to a significant extent, that is, they can be recognised in such a way as to allow for exemptions that shorten the duration of higher education programmes for vocationally qualified applicants.

In the course of the pilot study the equivalence check according to the “Oldenburg Model” was applied for the first time in the vocational domain of engineering and technology, thereby demonstrating that the methodology is appropriate not only for the business training programmes for which it had been originally developed, but also for the possibly more “practical” type of knowledge and skills that prevails in technical occupations. A particular advantage of the Module Level Indicator is that it allows for a precise and transparent assessment of the level of vocational learning outcomes, which provides a scientifically valid basis for their accreditation and supports quality assurance in the organisation of permeability. The results of the level comparison in this specific case also emphasise the quality of vocational training in the technology sector and demonstrate that learning outcomes related to these quite demanding training occupations do not necessarily fall short of learning outcomes achieved at the level of tertiary education. This gives further support to the idea that the vocational track is indeed a promising route for learners who are interested in further intellectual development through higher education.

The experience of this case study provides the opportunity to reflect on the general feasibility and the further development of the methodology. As mentioned before, the items of the Module Level Indicator are in principle applicable to a variety of vocational domains and not confined to a particular sector. However, the difficulties encountered by the expert evaluator in the application of two of the MLI scales, namely “communication” and “consideration of ethical and social issues” suggest that some of the items may require some revisions. A reason for the problems with the items of the two scales in question could be that these particular scales reflect issues that are more specific or more relevant to business occupations than to those in the engineering and

technology sector. The fact that certain items may be less relevant in some occupational sectors will have to be taken into consideration when the MLI is developed further.

Another aspect that deserves further attention is the fact that the equivalence check, which is basically a procedure designed to identify commonalities between education and training programmes, by definition has the property of identifying differences, too. By virtue of this property the procedure can also serve as a means to assess education and training programmes with the aim to detect possible shortcomings or gaps, and to identify the potential for improving programmes. Accordingly one perspective for the future development of the equivalence check methodology would be the supply of a tool or procedure specifically designed for the monitoring and quality management of programmes in (continuing) vocational education and training.

6. References

- Hanft, Anke; Knust, Michaela; Müskens, Wolfgang; Gierke, Willi B. (2008): *“Vom Nutzen der Anrechnung – Eine Betrachtung aus organisatorischer und ökonomischer Perspektive”*, Betriebswirtschaftliche Forschung und Praxis 60:4, pp. 297–312.
- HRK (Hochschulrektorenkonferenz) (2003): *Empfehlung des BMBF, der KMK und der HRK an die Hochschulen zur Vergabe von Leistungspunkten in der beruflichen Fortbildung und Anrechnung auf ein Hochschulstudium*. 200. Plenum am 8. Juli 2003.
- Jansen, R.; Hecker, O.; Scholz, D. (eds.) (1998): *Facharbeiterausbildung in der Sackgasse? Entwicklungen und Perspektiven auf der mittleren Qualifikationsebene*, Bielefeld.
- KMK (Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland) (2002a): *Anrechnung von außerhalb des Hochschulwesens erworbenen Kenntnissen und Fähigkeiten auf ein Hochschulstudium (I)*. Beschluss der Kultusministerkonferenz vom 28.06.2002.
- KMK (Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland) (2002b): *Rahmenvereinbarung über Fachschulen*. Beschluss der Kultusministerkonferenz vom 07.11.2002.
- KMK (Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland) (2008): *Anrechnung von außerhalb des Hochschulwesens*

erworbenen Kenntnissen und Fähigkeiten auf ein Hochschulstudium (II).
Beschluss der Kultusministerkonferenz vom 18.09.2008.

Müskens, Wolfgang (2006): *„Pauschale und individuelle Anrechnung beruflicher Kompetenzen auf Hochschulstudiengänge – das Oldenburger Modell“*, Hochschule & Weiterbildung 1, pp. 23–30.

Müskens, Wolfgang; Müskens, Isabel; Hanft, Anke (2008): *„Application and Impact of Learning Outcomes on Institutional Cooperation, Accreditation and Assessment – A German Case“*, pp. 82–109 in *Implementing Competence Orientation and Learning Outcomes in Higher Education – Processes and Practices in Five Countries* (eds. Eva Cendon; Katharina Prager; Eva Schacherbauer; Edith Winkler), Krems: Danube University Krems.

Müskens, Wolfgang; Tutschner, Roland; Wittig, Wolfgang (2009): *„Accreditation of Prior Learning in the Transition from Continuing Vocational Training to Higher Education in Germany“*, pp. 75–98 in *Accreditation of Vocational Learning Outcomes: Perspectives for a European Transfer* (eds. Roland Tutschner; Wolfgang Wittig; Justin Rami), ITB-Forschungsberichte 43/2009, Bremen: Institut Technik und Bildung (ITB), Universität Bremen. Online: <http://nbn-resolving.de/urn:nbn:de:gbv:46-ep000106120>

Statistisches Bundesamt (2007a): *Fachserie 11 Reihe 2, Berufliche Schulen, Schuljahr 2006/07*. Wiesbaden: Statistisches Bundesamt.

Statistisches Bundesamt (2007b): *Fachserie 11 Reihe 3, Berufliche Bildung, Berichtszeitraum 2006*. Wiesbaden: Statistisches Bundesamt.

Statistisches Bundesamt (2007c): *Fachserie 11 Reihe 4.2, Prüfungen an Hochschulen, 2006*. Wiesbaden: Statistisches Bundesamt.

Permeability between Vocational Education and Training and Higher Education in Austria – Experiences, Good Practices and Perspectives

Monika Prokopp, Karin Luomi-Messerer

1. Introduction and Overview

→ *Context – permeability in the Austrian qualifications system*

In recent years, the principle of mobility and progression (permeability) between vocational education and training (VET) and higher education (HE) has become an important issue in Austria, in particular in the context of lifelong learning, the implementation of the Bologna process and the development of the National Qualifications Framework (NQF).

Lifelong Learning

The most recent overall proposals for “guidelines for a coherent LLL strategy in Austria” were elaborated in 2007 by a group of experts.¹ Five basic principles were defined:

- Orientation towards phases of life: the “normal” and conventional model of phases of life – learn, work, retire – has been changing, and phases of learning and working alternate or intermingle. In addition, employability has to be fostered by fitting one’s competences to changing labour market needs. Thus, learning should be enabled in all phases of life. Concrete policy recommendations refer to creating possibilities to start a learning process at any time, offer educational programmes in modules and offer time for education in the sense of a “work-life-education-balance”.
- Putting the learner in the centre: educational programmes, models of learning time and funding instruments should correspond to the peo-

¹ Cf. Donau-Universität Krems (Ed.) (2007).

ple's needs. The experts recommend a combination of learning places, the development of new learning architectures, the creation of new forms of teaching and learning, widespread support for e-learning or distance learning and a different self-concept and new tasks for trainers and teachers.

- Life long guidance: a system of lifelong guidance should support people in developing the ability to reflect and to learn and in recognising their potentials. It should involve showing possible educational pathways, fostering of motivation for education and sufficient low-threshold information for unprivileged persons. This could be achieved by establishing independent counselling and guidance agencies, professional vocational, educational and career counselling and a broader access to counselling.
- Competence orientation: the educational system has to "translate" qualifications to competences which can be allocated to national and international qualifications frameworks. Making learning visible is relevant for the labour market, for educational institutions and for the individual as well. It is recommended to support the further development of portfolio instruments for recognizing especially informal learning and to create dual educational programmes on all levels.
- Participation in lifelong learning: reducing barriers for lifelong learning should raise participation. The expert consortium recommends raising educational motivation already in schools, to establish comprehensive offers for basis general and vocational education and to establish learning networks on a regional level.

The group of experts also claimed to enhance permeability in all educational levels and for all age groups in order to contribute to higher participation in educational programmes and higher educational motivation.

Bologna process

Permeability is also taken into account in connection with the Bologna process. Lifelong learning was recognised as an essential element of the EHEA since the meeting in Prague in 2001 of the ministers responsible for HE in the participating countries of the Bologna Process. During the 2005 meeting for a mid-term review and for setting goals and priorities towards 2010, the minis-

ters agreed that they “will work with higher education institutions and others to improve recognition of prior learning including, where possible, non-formal and informal learning for access to, and as elements in, higher education programmes”.² Thus, recognition issues received a distinctive position within the Bologna Process³ and the respective aims were stressed again in the London Communiqué (“Fair recognition of higher education qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning, are essential components of the EHEA, both internally and in a global context.”⁴) as well as in the Leuven and Louvain-la-Neuve Communiqué: “Successful policies for lifelong learning will include basic principles and procedures for recognition of prior learning on the basis of learning outcomes regardless of whether the knowledge, skills and competences were acquired through formal, non-formal, or informal learning paths.”⁵ The most recent status-quo report on the implementation of the Bologna process in Austria⁶ mentions a “turnaround” in some institutions⁷ where recognition of prior learning is handled in a reasonable and uncomplicated way. But it is also stated that the overall awareness has to grow yet.

National Qualifications Framework

Furthermore, it can be expected that the National Qualifications Framework (NQF) that is currently being developed in Austria will further contribute to enhance permeability. The NQF development process started after the European Qualifications Framework (EQF) consultation process in 2006. A NQF consultation paper was produced in 2007 and a national consultation process was conducted in 2008. On the basis of the results of the consultation process and of some testing projects as well as of further discussions, the national NQF steering group is presently preparing a “political strategy paper” for the implementation of the Austrian NQF. Despite different perspectives and assumptions, the development of the NQF is quite often associated with positive expectations for structural reforms in the Austrian educational system. The intention is that the NQF should map all qualifications which can be gained

2 Bergen Communiqué (2005), 3.

3 Cf. Adam 2008 or Zgaga 2008.

4 London Communiqué (2007), 3.

5 Leuven and Louvain-la-Neuve Communiqué (2009). 3.

6 Cf. bm:wf (2009), 83.

7 The institutions are not named.

in Austria and present them in relation to each other. Linking the NQF to the EQF should make national qualifications easier to understand and easier to compare with those of other countries. On principle, the NQF shall promote the strengths of the Austrian educational system and visualise existing processes. At the same time, it should be related to the EQF and should ensure international compatibility.

According to the NQF consultation document⁸ the objectives for the NQF include the following:

- making interfaces visible and enhancing permeability;
- enhancing national and transnational mobility opportunities;
- strengthening inter-jurisdiction and inter-sector cooperation.

However, since the NQF is not yet ready, there are also no experiences of its actual impact on permeability between VET and HE. Nevertheless, some measures have already been taken to provide mobility on a horizontal level. In the CREDIVOC project our focus was on these existing measures and in particular on an example of good practice for accrediting in HE the learning outcomes from (initial) VET.

→ *Overview*

Section 2 offers basic information on the main VET pathways as well as on permeability between VET and HE in Austria. A number of formal pathways from VET to HE are described as well as possibilities of accreditation of learning outcomes from VET at *Fachhochschulen* (FH, universities of applied sciences), public and private universities and other HE institutions.

Section 3 describes the processes for enhancing permeability between VET and HE in degree programmes at the Fachhochschule Technikum Wien (University of Applied Sciences Technikum Wien). Three measures that are more or less based on the accreditation of learning outcomes from VET – access to study programmes, exemption from courses and an innovative way of further cooperation with a VET institution – are described in more detail.

⁸ Cf. bm:ukk & bm:wa (2008).

One of the aims of the CREDIVOC project was to discuss the transferability of instruments for the accreditation of learning outcomes from VET to HE from one context to another. Therefore, in Section 4 the question of the possibilities and perspectives for the application of the Module Level Indicator, an instrument for supporting permeability between VET and HE developed in Germany,⁹ into the Austrian context will be addressed.

In Section 5, this report concludes with some comments on further issues to be addressed in Austria in order to enhance permeability between VET and HE.

2. Permeability between VET and HE

→ *The Austrian VET system: a brief overview*

Compulsory education in Austria consists of nine years of schooling and starts at the age of six years. After four years of primary school, a decision must be made between lower secondary school and secondary academic school. A fourteen-year-old has several possibilities: secondary academic school at an upper level, VET schools and colleges or a pre-vocational year. Apprenticeship follows compulsory education and starts at the age of fifteen years.

Apprenticeship training is based on the principle of the dual system. It combines educational and employment systems and is called “dual” because vocational training is carried out in two sites: in companies and in vocational schools. In-company on-the-job training and theoretical school-based instruction at vocational compulsory school complement each other. Apprenticeship training takes between two and four years. Graduates of apprenticeships are entitled to practice their professions based on their initial VET (IVET) qualification. They can obtain higher professional qualifications in foreperson or master craftsperson courses, in add-on courses or in schools and courses for employed people.

VET schools include schools for the various trades such as technology, tourism, commercial schools, or schools for home economics. They have the task of providing students with the basic job-specific knowledge and skills they

⁹ See Müskens, Tutschner & Wittig, in this volume.

will need when exercising their future occupations in their respective fields. At the same time, general knowledge acquired beforehand is consolidated. VET schools are attended after the eighth year of schooling and the course of study usually last three or four years. Courses focus on practical training in school workshops, laboratories, kitchens and training enterprises. VET school graduates can, as well as graduates of an apprenticeship, practice their professions based on their IVET qualification and obtain higher professional qualifications in master courses, add-on courses or in courses for employed people.

VET colleges, as well as VET schools, offer education in various trades and provide job-specific knowledge and skills. VET colleges are attended after the eighth year of schooling, where the course of study comprises five years. There is practical training in school workshops, laboratories, kitchens and training enterprises. As general knowledge is conveyed at a higher level than at VET schools, graduates of VET colleges have a double qualification: they are not only entitled to practice relevant professions but they can also continue studying in HE.

For the tenth year of schooling, the proportion of educational pathways has roughly remained the same over the last eight years. Around 40%¹⁰ of the young people are apprentices and around 14% attend a VET school. Over 25% attend a VET college, and nearly 21% are students at an academic secondary school.¹¹

In continuing vocational education and training, various groups of people are targeted at:

- Second-chance route to lower secondary qualification (for example, bridge courses for people who have completed their period of compulsory schooling without acquiring a final certificate);
- Schools and colleges for people in employment: there are various VET colleges for working people (their curricula essentially correspond to the structure of the full-time school form) and special forms of VET-school courses at business, schools of management and services industries and especially at schools specialising in technical trades: (1) Foreperson courses for people in employment (*Werkmeisterschulen*)

¹⁰ Drop-outs from the educational system are not accounted for in these data.

¹¹ Schneeberger & Novak (2008), 41.

für Berufstätige): enable working tradespeople who have served an apprenticeship or successfully completed VET school to upgrade their vocational qualification. These courses last for two years and culminate in an examination before a board. Successful candidates are qualified to train apprentices and, after four years of practical work, to become self-employed in a relevant trade. (2) Courses for construction workers (*Bauhandwerkerschule*): similar to forepersons' schools but are specifically intended for people who have completed their vocational training in a building trade such as bricklaying or carpentry. (3) Master craftsperson courses (*Meisterschulen*): provide specialised CVET. Their courses last from one to two years; applicants for admission must be at least 18 years of age and are expected, as a rule, to have completed their IVET and/or to have a certain amount of practical experience in their trade;

- Acquisition of qualification providing access to higher education;
- CVET courses at universities and universities of applied sciences;
- CVET in non-profit providers.

→ *Formal pathways from VET to HE*

The possibilities for progression from VET to HE in Austria mainly depends on the types of programmes:

VET colleges (duration: five years) are classified as ISCED 4A.¹² Graduates from VET colleges have a double qualification: their *Reifeprüfung* (upper secondary school leaving exam) provides direct access to higher education. In addition, they have direct access to a number of regulated professions. Because of the European Directive 2005/36/EC¹³ on the recognition of professional qualifications, diplomas from VET colleges correspond to the directive's diploma level and thus provide access to regulated professions in other member countries, even if access is based upon diplomas for up to four years of tertiary education. This confirms that graduates of VET colleges acquire professional qualifications for which in other EU countries training at post-secondary level would be required.

¹² Statistik Austria (2008).

¹³ Official Journal of the European Union L 255 of 30.9.2005, pp. 22–142.

Graduates of apprenticeships and VET schools must complete special exams, such as the *Berufsreifeprüfung* (special VET diploma - examination providing general access to higher education for skilled workers and graduates of three to four-year fulltime VET schools) subsequent to their initial training to receive unrestricted access to HE in Austria. The *Berufsreifeprüfung* grants the right to study in all disciplines at universities and universities of applied sciences (*Fachhochschulen*) without a certificate of secondary level education. Target groups are those who have successfully completed an apprenticeship in the dual system, a three-year intermediate technical and vocational school, a general vocational qualification examination in accordance with Article 7 of the Agriculture and Forestry Vocational Training Act, a school of nursing, or the school for healthcare and nursing, a minimum thirty-month-long school for medical-technical service, a master craftsperson examination, a qualifying examination, or an agriculture and forestry school. Credits can be obtained from examinations completed in a different context such as the *Meisterprüfung* (master craftsperson examination) for individual areas or certain language certificates.

Another possibility is to pass the *Studienberechtigungsprüfung* (higher education entrance examination) for access to specified subjects or subject areas in universities. The *Studienberechtigungsprüfung* can only be passed for a specific study course at a university. However, graduates of this exam can also gain access to universities of applied sciences (*Fachhochschule*) with corresponding subjects¹⁴. For admission to the *Studienberechtigungsprüfung*, among other things, a record of a successful vocational or non-vocational qualification for the desired field of study must be provided.

Candidates usually attend preparatory courses for taking these exams. Tuition fees must be paid for these courses: at an Adult Education Center, for example, costs can be from 600 Euro to 1,000 Euro for the *Studienberechtigungsprüfung* and between 1,900 Euro and 2,430 Euro for the *Berufsreifeprüfung*.¹⁵ Several possibilities for financial support are available. For all applicants, there are further education grants from the federal countries that cover a part of the costs for the courses.¹⁶ Persons in preparation courses for the *Studienberechtigungsprüfung* can get a regular grant for students in need that also

¹⁴ Österreichischer Fachhochschulrat (2008b).

¹⁵ VHS Floridsdorf (2008a), VHS Floridsdorf (2008b).

¹⁶ BIBER Salzburg (2008).

covers subsistence costs.¹⁷ Courses for the *Berufsreifeprüfung* are organised in a modular form to fit to the employed students' needs.¹⁸ Preparation courses for the *Studienberechtigungsprüfung* can be attended full-time or part-time.¹⁹

In a rather new initiative called "Lehre mit Matura" (apprenticeship with special VET diploma), apprentices can attend preparation courses for the special VET diploma parallel to the apprenticeship and can take three of the four parts of the exam during the apprenticeship. Thus, they can finish both the apprenticeship and the *Berufsreifeprüfung* nearly at the same time when they have reached the age of 19. The federal government has decided on a model to offer these parallel courses free of charge and the pilot phase started in autumn 2008. It was estimated that 1,600 apprentices per year would take part in that project.²⁰ Evaluations of the pilot project or data about participants are not yet available.

In Austria, the first degree programmes at *Fachhochschulen* (universities of applied sciences) started in 1994. According to the government directive setting up the programmes, the goals included diversifying HE, increasing transparency and harmonisation of the Austrian education system with the systems existing in other EU Member States and increasing permeability between VET and HE. The universities of applied sciences have therefore specific admission regulations. Access is possible for graduates of secondary technical and vocational schools or apprenticeships with professional experiences have access without a *Reifeprüfung* (upper secondary school leaving exam providing general access to HE). Depending on the competences necessary for starting a degree programme, candidates may have to sit supplementary examinations (for example, in mathematics, German and English) in the first year of study.

→ *Accreditation of prior learning from VET in HE*

Next to the formal pathways for progression from VET to HE as described above the Austrian educational system provides also some possibilities for accrediting learning outcomes from VET in HE programmes:

17 Studienbeihilfenbehörde (2008).

18 Markowitsch, Benda-Kahri, Prokopp et al. (2008).

19 bm:ukk (2008b).

20 bm:ukk (2008a), bm:ukk (2009).

The following types of accreditation of prior learning at the interface between VET and HE can be identified:

- a) access to courses of study at universities of applied sciences without a *Reifeprüfung* (upper secondary school leaving exam) but with relevant professional experiences;
- b) individual exemption of single courses or semesters based on certificates from other study courses or on non-formal and informal learning;
- c) generalised (blanket) exemption of semesters for graduates of certain VET colleges.

ad a) The *Fachhochschulen* (universities of applied sciences) have specific admission regulations. The corresponding law (*Fachhochschul-Studiengesetz*) uses the phrase “relevant professional experience”. This phrase usually indicates that the candidates are skilled workers or graduates of secondary technical schools without a *Reifeprüfung*. Generally, they must pass additional examinations (for example, in mathematics, German and English) in the first year of study. Several universities of applied sciences²¹ offer preparation courses for apprentices or persons in foreperson courses specifically designed to provide access to study programmes in these institutions.

Recent statistics show that the number of “non-traditional students” (students without a *Reifeprüfung*) has slowly risen over the last years: in 2002/03 there were 1,332 (7.6%) non-traditional students in study courses in Austrian universities of applied sciences. In 2007/08, the number had risen to 3,067 (10.8%) non-traditional students.²² These data show that access for non-traditional students at universities of applied sciences has remained behind the original expectations. In a recent publication,²³ this is attributed to the governance approach in this system, which cannot reach aims of public interest when they do not have political priority.

21 E.g. FH Oberösterreich, FH Campus Wien. Cf. FH Campus Wien (2008), Land Oberösterreich (2007).

22 Österreichischer Fachhochschulrat (2009).

23 Winkler (2008).

ad b) and c) VET college graduates can start in relevant study programmes in the second or third semester at universities of applied sciences. This can be handled individually, but depending on the institutions involved there are also blanket exemptions. Since the relevant legal regulations for accreditation of prior learning²⁴ are rather general, the extent of exemptions varies depending on the institution and different programmes accredit different amounts of subjects or semesters. Graduates from VET colleges can, for example, start in the second semester in one university of applied sciences but in the third semester in another university of applied sciences. Accreditation is also handled differently in various courses of study, even at the same institution: some courses of study have precise definitions of what can be accredited; in others, accreditations are based on individual agreements.²⁵ There is no overview on what subjects or how many semesters are accredited for graduates of certain schools. Information can only be obtained from the individual study programmes, and accreditation is often handled for individual cases.

At universities, VET college graduates can have their certificates accredited for exemption from certain examinations.²⁶ The legal basis for this practice is the University Law (*Universitätsgesetz*) of 2002.²⁷ Up to now not many examples can be found but since Austria is taking part in the Bologna process, accreditation of non-formal and informal learning will probably have to be addressed more thoroughly in the future. It has to become a topic Austrian public universities have to deal with. A study²⁸ commissioned by “Universities Austria” represents an important step in this direction. In this study, the political framework, various definitions and the perspective of selection processes at universities are discussed to prepare the ground for recommendations for APEL (accreditation of prior experiential learning) in universities. These recommendations include:

- recognition should be conducted by the receiving institution;
- universities’ aims and tasks should be reflected and related to students’ and graduates’ profiles;

24 Cf. bm:wf (2008).

25 At the University of Applied Sciences FH Joanneum such definitions are available for the study programme electronics & technology management. but not for any other study programme. Cf. FH Joanneum (2008).

26 One relevant example can be found at HTL Klagenfurt (2008).

27 Cf. Bundesministerium für Bildung, Wissenschaft und Kultur (2006).

28 Spiel et al. (2009).

- the underlying philosophy of competence assessment should be made transparent;
- theoretical and educational quality criteria should be met.

In this study, the recognition procedure is sketched and further recommendations (e.g. concerning the European perspective, the role of the European University Association, application of validation also for modules within a study course) are given. The main challenge is seen in combining the complexity of the task and economic handling of the process.

Accreditation of learning outcomes from VET in other tertiary institutions is only possible in a rather limited way: in *Pädagogischen Hochschulen* (Universities of Education), permeability between VET and HE is not provided. It is only possible to get credits, for example, for special courses in teacher training or credits for the *Studienberechtigungsprüfung* (special exam for access to the university).²⁹

Accreditation practices for prior learning at the nine accredited private universities in Austria differ widely. Anyway, there are hardly any possibilities for accreditations from VET to HE. Webster University is an exception, here it is possible to get credits for the Austrian *Reifeprüfung* (upper secondary school-leaving exam) and thus to shorten the undergraduate degree bachelor course from four to three years.³⁰

Access to CVET university courses can be granted to people who do not have a *Reifeprüfung* but have relevant vocational training and long-term practice. In some cases, access to master programmes is not only granted to graduates of HE programmes but also to people with long-term practice in the relevant field (e.g. study programme Master of Public Administration at the Danube University Krems - University for Continuing Education).³¹

29 PH Wien (2009a), PH Wien (2009b).

30 Cf. Webster University (2009).

31 Donau-Universität Krems (2009).

3. Case Study: Accreditation Processes at the FH Technikum Wien

In the Austrian case study for the CREDIVOC project, the accreditation practices at the University of Applied Sciences FH Technikum Wien are described. This example reflects good practice in an Austrian HE institution which to a large extent is based on stakeholders' experiences.³²

FH Technikum Wien is Austria's largest university of applied science for technology. It was founded in 1994 and since then about 2,000 persons have graduated at this institution. Currently, more than 2,500 students are enrolled in 11 bachelor study courses and 15 master study courses. Study courses are offered in full-time form or part-time for students in employment. The study programmes can be allocated to four subject focuses:

- Communication Technologies & Electronic Engineering;
- Information Technologies & Business Solutions;
- Engineering & Environmental Technologies;
- Life Science Technologies.³³

The case describes accreditation practices at the study courses "electronics" and "electronics/economics" at the University of Applied Sciences FH Technikum Wien. Three types of such accreditation practices at the interface between VET and HE can be identified there:

- access to HE for graduates of an apprenticeship or a VET school without a *Reifeprüfung* (upper secondary school leaving exam);
- exemption from semesters or subjects for graduates of VET colleges or persons with other relevant experiences;
- exemption from courses based on extended cooperation between a VET institution and FH Technikum Wien.

32 Qualitative data for our case study were obtained in two interviews with Mr. Fritz Schmöllebeck, the director of University of Applied Sciences Technikum Wien who also was director of the electronics degree programme for several years.

33 FH Technikum Wien (2009).

→ Access

For access without *Reifeprüfung* (upper secondary school leaving exam) to universities of applied sciences, applicants apply using the regular application procedure, a written test and an interview. Before studies start in autumn, these prospective students attend a “summer school” to grow accustomed to learning again in a school-based system and to brush up their knowledge in mathematics, physics and other natural sciences.

Even though the law is not precise about the kind of relevant professional experiences that grants access to universities of applied sciences without *Reifeprüfung* (upper secondary school leaving exam), in general – as mentioned above – this refers to skilled persons who have finished an apprenticeship or a VET school and have several years of professional experience. Usually the study programme director knows the company where these applicants were employed, and he or she has an idea of what kind of knowledge, skills and competences might have been acquired there. There is a “dual coach” for counselling graduates from the “dual system” (apprenticeship). Interested graduates of an apprenticeship can ask the “dual coach” for counselling and gaining information on studying, “summer schools” or also recommendations for preparation courses for the HE entrance examination in other institutions. For some time, the “dual coach” was prominently promoted on the website because FH Technikum Wien wanted to attract more persons from the dual system. In the meantime, this possibility of access to universities of applied sciences has become widely known. In the study year 2007/08, app. 10.8% of the students at FH Technikum Wien can be considered as “non-traditional” students, i.e. they got access to the study programmes through other routes than the *Reifeprüfung* (upper secondary school leaving exam).³⁴

→ Exemption

Due to accreditation of prior acquired learning outcomes, approximately 30% of students at FH Technikum Wien from certain courses; in about 50% of all cases of exemptions this leads to a shortening of the duration of the study time for these students.³⁵ In some cases, graduates of relevant VET colleges can

³⁴ Schmöllebeck (2009), 4.

³⁵ Schmöllebeck (2009), 10.

start their studies in the second semester or even the second year of the study course at a university of applied sciences, when a place becomes available, usually because other students have dropped out. The director of the course of study cooperates with lecturers from the university of applied sciences and teachers from VET colleges to decide on these exemptions. They check the curriculum of the respective VET college and discuss equivalence of learning outcomes and content with the teachers, mostly those who are responsible for relevant departments. In the beginning, there was co-operation with a single VET college that had also been partner in other forms of co-operation. Later, because other VET colleges in Vienna were also interested in cooperation for accreditation, the *Stadtschulrat Wien*, the city's overall school authority, contacted the course of study, and further co-operations was initiated.

One of the reason for *Technikum Wien* started co-operating with VET colleges was to attract VET college graduates as students. The VET colleges, meanwhile, were more attractive for students because they offered exemption from one or two semesters of study. The beginning of these co-operations has to be seen in the history of the establishment of the sector of universities of applied sciences: when exemptions were first provided at FH Technikum Wien, several teachers from VET colleges were also lecturers at this university of applied sciences. Thus, from their own experiences, they could estimate equivalences of knowledge, skills and competences quite well. In the meantime, the system of exemptions is built upon experiences of graduates from certain schools, thus the procedures are somewhat standardised.

Information on and experiences with accreditations are exchanged between the various universities of applied sciences. When representatives of the institutions meet, the content and extent of accreditations are discussed regularly, probably because only very vague overall regulations exist. Some universities of applied sciences have a reputation of quite generously handling accreditations. However, there are regional differences in the number of relevant VET colleges; i.e., when there are more relevant VET colleges, there are more possibilities to co-operate with them on accreditation. Accreditations also seem to depend on the number of applicants for courses of study. It might be the case that those study programmes with a high number of interested potential students offer fewer possibilities for accreditation.

The accreditation process starts at the very beginning of the application phase. The application process is the same for all persons who want to study at uni-

versities of applied sciences. If there is a written application, then all persons who meet the access requirements are invited to sit for a written test, which leads to a ranking of the applicants. Finally, in an interview, they must explain their motives for choosing this subject. With this application procedure, not only the student's knowledge, skills and competences are identified but also their ability to study.

Applicants are informed about possibilities for accreditation. Decisions on accreditation are taken according to the ranking in the written examination. Graduates of VET colleges who do not perform so well in this examination are recommended to start in the first semester without any accreditation.

Accreditation is practiced differently for graduates from VET colleges or persons who seek individual accreditations. Graduates from certain VET colleges have a clear "path" because there are routines for exemptions, based on the experiences made with the students from the individual institutions. At FH Technikum Wien, all study programmes have a list noting which VET colleges and VET college departments are considered for exemptions and in which study programmes.

Exemptions from certain courses are individualised: the student considers for which subjects he or she could get accreditations and on which basis; for example, by comparing the curriculum with his or her own knowledge, skills and competences. Then he or she discusses it with the responsible teacher who also, in this case, serves as a counsellor. In particular, when accreditation should be granted for non-formal or informal learning, the teacher and the director of the study programme try to gain an overall view of the student's knowledge, skills and competences, not only regarding the most recent job or education – this would not convey a comprehensive picture of the student's knowledge, skills and competences – but also if the student has other relevant experiences; for example, from other trainings or schools, professional practice from internships or even hobbies. Thus, the content or the exemption is clarified with the teacher while the study programme director has to confirm it formally. This focus on the individual educational pathway is deemed to correspond more to application practices in the industry than testing practices in school-based systems.

According to the director of FH Technikum Wien, comprehensive counselling and trust in the students' abilities are central elements in this case. Students

are assumed to know what they have learned, what their competences are and which educational path they choose to pursue. Their active participation in the process and their reflection on their own abilities are essential. Students know that the accreditation procedure cannot guarantee a total congruence of the knowledge, skills and competences acquired in other contexts and those acquired at the university of applied sciences. However, since the ability to study is evaluated and ascertained in the application procedure, there are routines for filling possible knowledge gaps. When students realise that they lack certain knowledge, they usually organise their own learning by looking up what they do not know in books or scripts, in their own records from school, or they ask colleagues. Mixed work groups in the laboratory or other courses ease the integration of students who start in the third semester. This simple measure provides a framework for information exchange and also functions very well for social integration. When students do not find relevant literature themselves or with help of their colleagues, lecturers also help. They provide such information or other forms of help; for example, access to the laboratory beyond regular opening hours, or individual counselling.

Over the years, the application procedures have changed. In the beginning, additional tests to the ranking tests checked applicants' basic knowledge in relevant subjects. Special "bridge courses" assisted those students whose prior knowledge from VET college allowed them to start studies with the third "regular" semester of the study programme. These courses focused on developing soft skills and were extra work for those students with exemptions. Now, these measures are no longer deemed necessary because experiences with many students from various schools have shown that graduates of certain schools or departments can study and get along well even when they start at the second-year level. Thus, individual counselling resulted in a routine handling of exemptions.

→ *Exemption plus further cooperation*

A new form of cooperation to enhance permeability between VET and HE was established between the TGM, a VET college in Vienna, and University of Applied Sciences Technikum Wien. Like many VET colleges, TGM offers postsecondary courses for persons who have a *Reifeprüfung* (higher education entrance exam, mostly acquired in academic secondary schools) or a certificate from a four-year VET school and want to achieve professional qualifications

corresponding to those a VET college offers. Due to the high entrance level (Reifeprüfung or relevant VET school), the courses only take two years whereas usually the VET college takes five years of education.

In 2006, TGM established co-operation with FH Technikum Wien. From then on, TGM students in the second year of the postsecondary course “network technology” have had the possibility to attend lectures and seminars from the study programme “electronics” at FH Technikum Wien parallel to the course at TGM. After finishing the TGM course, these students can continue studying at FH Technikum Wien and start in the third year of the three-year bachelor programme “electronics”. Thus, they can obtain a professional qualification as graduates of the VET college and an academic qualification as graduates of a university of applied sciences in only three years.

An evaluation report from 2007³⁶ shows positive feedback from teachers and students participating in this cooperation project. The possibility to obtain two qualifications within only three years was given as the dominant reason for participating in this programme. However, teachers in particular see a challenge for students because the combined programme is very time-consuming. Persons who did not choose to participate did so because they did not yet want to specialise in a certain field or could not afford the tuition fees at the university of applied sciences. Reasons for drop-out were especially systemic differences between the outcome-oriented teaching at the postsecondary course and the independent competence acquisition at the university of applied sciences.

Due to experiences from the first year, adaptations of the concept were planned or implemented. The changes recommended included, for example, to agree changes in the timetable at the study programme at FH Technikum Wien with the TGM to avoid “time collisions”, and to better coordinate the courses in terms of teaching content.

In a second evaluation phase, feedback from students on their transition from TGM to FH Technikum Wien in the third year as well as feedback on the co-operation from students and staff at the FH Technikum will be obtained. The evaluation report will be finished in 2009. If the model is also deemed attractive from these perspectives, criteria for the transfer to other institutions will be

36 Nindl (2007).

identified. One major question in this context seems to be the financing of such cooperations.³⁷

4. Transferability of Instruments from Other Countries: Perspectives for Applying the Module Level Indicator in Austria

→ *Introduction*

The Module Level Indicator (MLI)³⁸ is a tool to measure equivalence of learning outcomes and units (modules) and was developed to enhance permeability between continuing vocational education (CVET) and HE. In Germany, there are two tracks of CVET: the CVET system of the Chambers of Industry and Commerce and the Chambers of Crafts, and the school-based continuing training for *Staatlich geprüfte Techniker/innen* (state-certified engineers) and certain other occupations. These educational pathways form a highly standardised CVET system for a large number of professions connected with entitlements to practice certain professions.³⁹

Though the graduates from the CVET programmes reach a high level of competences in their professions, it was not possible to get credits for these competences in HE – the CVET and HE systems were completely separated. The MLI was developed in the ANKOM project in order to provide a tool for bridging this gap and thus enhancing permeability.⁴⁰ It enables an “equivalence check”, a comparison of modules of two programmes – one from HE, one from CVET – in terms of content (learning outcomes) and level.

37 Cf. Nindl (2007). It was possible to conduct the project due to personal commitment of the management of the institutions, but there is no additional budget for this kind of cooperation and all the organisational work connected with it (such as taking care of accordance of curricula, communication of changes in curriculum or schedule).

38 See Müskens, Tutschner & Wittig, in this volume.

39 Cf. Müskens, Tutschner & Wittig (2009), 77–79; see also Müskens, Tutschner & Wittig, in this volume.

40 ANKOM (2009).

→ *Perspectives for applying the MLI in Austria*

In Austria, tools such as the MLI are not available. Existing practices rather resemble those at FH Technikum Wien which were described in our case study. Therefore, in the “transfer phase” of the CREDIVOC project, a workshop was organised in Vienna in order to discuss the applicability of the MLI in the Austrian context.⁴¹ About 15 representatives from Austrian universities and universities of applied sciences, from organisations representing universities and universities of applied sciences (Universitätenkonferenz – Universities Austria, Fachhochschulkonferenz – Austrian Association of Universities of Applied Sciences), from the Fachhochschulrat (Fachhochschul council, accreditation agency for universities of applied sciences), from a research institute and from the Austrian Chamber of Labour (Arbeiterkammer) attended the workshop. In the workshop the CREDIVOC project and the MLI were presented. The participants first used the opportunity to ask numerous questions about the MLI application and in a second step discussed the possibilities and barriers for the transfer of a tool like the MLI to the Austrian educational system.

First of all it was stressed that policy decisions are needed regarding accreditation of prior learning in the context of HE as well as regarding the relevant target groups. It should be discussed in which areas there actually is a need for accreditation, for which target group(s) and in which form. Based on those facts, the method or instrument should be decided upon individually. The legal and institutional framework has to be taken into consideration, of course.

It was also stressed that there is a widespread need for instruments to accredit learning outcomes. However, the receiving institutions – those who are giving credits to students for previously acquired learning outcomes – should have a choice of instruments or methods and be able to combine them if necessary.

The application of the MLI in a context slightly different to the one it was originally developed for will, of course, have to be thoroughly reflected on and discussed with all stakeholders concerned. At the workshop, the general conditions for accrediting learning outcomes on basis of an instrument like the MLI were discussed:

41 We would like to thank Mr Bernhard Horak from the Arbeiterkammer Wien (Vienna Chamber of Labour) for his support in organising the workshop and Dr Wolfgang Müskens, Carl von Ossietzky University of Oldenburg, for his presentation of the MLI.

- Corresponding programmes: IVET or CVET which correspond at least in parts with certain tertiary programmes have to be identified. This means that such programmes have to be part of the formal system or at least highly standardised. Otherwise it does not make sense to implement such an instrument for a more detailed equivalence check.
- A certain number of persons who have completed the same IVET or CVET programme: in Austria, this might rather be the case with VET colleges (IVET).⁴² However, as the example from the FH Technikum Wien shows, procedures for accrediting learning outcomes from these VET programmes at universities of applied science have already been developed. Those HE study programmes that have not yet implemented any procedures for accrediting prior learning, might consider using such an instrument.
- Modularised programmes: a modular structure of tertiary programmes is necessary to facilitate the accreditation of modules. Currently, such a structure can not sufficiently be identified in many programmes in Austria. But with the implementation of the Bologna process, the HE study programmes will be designed in a modular structure.
- Financial resources: since the application of the MLI requires financial support⁴³ it has to be discussed where the money should come from. Since the students are the main beneficiaries (the duration of their studies will be shortened because of accreditation) it was considered whether “adequate” fees should be levied. However, the cost-benefit-ratio needs to be thoroughly examined.

The participants at the workshop agreed that mutual trust is an important aspect in the context of accreditation in HE of learning outcomes from VET. However, the processes for establishing such trusting relationships between VET and HE institutions can be quite different. Trust can be developed in long-term experiences with (informal) co-operations between institutions, in established formal accreditation processes as well as by using certain instruments. Using

- 42** The number of participants at CVET courses that are part of the formal system and are standardised enough, so that an equivalence check would make sense (for example, foremen courses for people in employment - Werkmeisterschulen), might be too low. Therefore, for graduates of CVET courses in Austria who want to get credits for their learning outcomes in HE individual accreditations seem to be more practicable.
- 43** To give an example for costs connected with the MLI: In the ANKOM project, experts got between 2.500 Euro and 5,000 Euro for one equivalence check. It is expected that the equivalence check will have to be repeated after ten or twelve years.

the MLI could be understood as a method-supported dialogue for building up mutual trust. It should be up to the partners in such a co-operation to decide on the how best to establish mutual trust.

5. Observations and Conclusions

In Austria, there are possibilities for progression from VET to HE as well as for accrediting in HE learning outcomes from VET. However, if the policy commitments are not just rhetoric but real intentions for changes, a lot of effort still needs to be invested to reach these goals. For the CREDIVOC project, we described one case as example of good practice. What remains to be done is a more detailed description and comparison of a wider range of existing practices as a basis for decisions on further policy measures. The triangle of policy, research and practice needs to be taken into account in this context.

We would like to finish this article with some conclusions regarding aspects that must be considered when enhancing progression between VET and HE programmes by accrediting in HE learning outcomes from VET:

- First of all, HE providers must be ready and willing to accredit learning outcomes from VET. They have to be convinced that co-operation brings benefits. VET and HE providers must show their commitment to enhance permeability and recognize the importance of such initiatives.
- Such co-operations have to be based on legal regulations. Such regulations, based on policy decisions, can be considered as fundamental issues for co-operation between VET and HE providers or, in many cases, for the HE accreditation of VET learning outcomes.
- The establishment of long lasting partnerships seems to be one of the main success factors for developing mutual trust between VET and HE. However, such co-operations always depend on the individual institutions and actors and their experiences with the relevant practices. In some cases, possible co-operations are prevented because the actors cannot agree on the extent or contents of accreditations.
- Pilot projects can help to build experiences, to promote dialogue between institutions, and to develop mutual trust. Exchanging pilot project experiences with other VET or HE institutions helps them learn from each other. Such projects can include cooperation activities between VET and HE institutions.

- Trusting students' abilities and advising students on the appropriate educational track are crucial factors in enhancing permeability between VET and HE. One needs to support instead of 'selecting' students.
- Instruments like the MLI could be used to start co-operations between VET and HE institutions. However, it needs to be thoroughly considered whether it really makes sense to implement such an instrument in those cases where formal or informal procedures have already been established (as described in the case of the FH Technikum Wien).

6. References

- Adam, S. (2008): "Why is the recognition of prior experiential learning important and what are the national and institutional implications of this for lifelong learning?" In: *New challenges in recognition: Council of Europe higher education series No. 10*, pp. 27-48.
- ANKOM (2009): *ANKOM – Anrechnung beruflicher Kompetenzen auf Hochschulstudiengänge*. Online: <http://ankom.his.de/> (30.11.2009).
- Anton Bruckner Universität (2009): *Antrag auf Anrechnung von Ergänzungsfächern*. Online: www.bruckneruni.at (30.11.2009).
- Bergen Communiqué (2005): *The European Higher Education Area – Achieving the Goals. Communiqué of the Conference of European Ministers Responsible for Higher Education, Bergen, 19–20 May 2005*. Online: http://www.bologna-bergen2005.no/Docs/00-Main_doc/050520_Bergen_Communique.pdf (30.11.2009).
- BIBER Salzburg (2008): *Finanzielle Förderung für Weiterbildung*. Online: <http://www.biber.salzburg.at/foerderung.htm> (30.11.2009).
- bm:ukk (2008a): *BM Schmied, Hundstorfer, Leitl, Sorger und Tumpel: Zukunftschancen sichern. Perspektiven geben. Beste Bildung für die Jugend*. Online: <http://www.bmukk.gv.at/ministerium/vp/pm/20080122a.xml> (30.11.2009).
- bm:ukk (2008b): *Zweiter Bildungsweg*. Online: http://www.erwachsenenbildung.at/bildungsinfo/zweiter_bildungsweg/ueberblick.php (30.11.2009).
- bm:ukk (2009): *Berufsmatura: Lehre mit Reifeprüfung*. Online: <http://www.bmukk.gv.at/schulen/bw/bm/berufsmatura.xml> (30.11.2009).
- bm:ukk (2009a): *Berufsbildende Schulen in Österreich*. Online: <http://www.abc.berufsbildendeschulen.at/de/news.asp> (30.11.2009).

- bm:ukk & bm:wa (2008): *Konsultationspapier – Nationaler Qualifikationsrahmen für Österreich*. Wien: bm:ukk, bm:wa. Online: http://www.bmwf.gv.at/uploads/tx_bmwfcontent/NQR_Konsultationspapier.pdf (30.11.2009).
- bm:wf (2008): *Fachhochschul-Studiengesetz – FHStG. Bundesgesetz über Fachhochschul-Studiengänge*. Online: <http://www.bmwf.gv.at/wissenschaft/national/gesetze/organisationsrecht/fhstg/> (30.11.2009).
- bm:wf (2009): *Bericht über den Stand der Umsetzung der Bologna Ziele in Österreich 2009*. Berichtszeitraum 2000 – 2008. Wien: bm:wf. Online: http://www.bmwf.gv.at/fileadmin/user_upload/europa/bologna/bologna-bericht_2009.pdf (30.11.2009).
- Bundesministerium für Bildung, Wissenschaft und Kultur (2006): *Universitätsgesetz 2002*. Online: <http://kommentare.rdb.at/kommentare/s/ug/htdocs/start.html> (30.11.2009).
- Donau-Universität Krems (Ed.) (2007): *Leitlinien einer kohärenten LLL-Strategie für Österreich bis 2010. In einer ersten Konsultation abgestimmte Vorschläge einer facheinschlägigen ExpertInnengruppe*. Krems. Online: http://l3lab.erwachsenenbildung.at/wp-content/uploads/l3l-expertinnenpapier_end.pdf (30.11.2009).
- Donau-Universität Krems (2009): *Master of Public Administration*. Online: <http://www.donau-uni.ac.at/de/studium/publicadministration/index.php> (30.11.2009).
- FH Campus Wien (2008): *Elektronik – Bewerbung*. Online: http://www.fh-campuswien.ac.at/studium/technik_und_management/bachelor/angewandte_elektronik/bewerbung/ (30.11.2009).
- FH Joanneum (2008): *Quereinstieg ins Studium*. Online: http://www.fh-joanneum.at/aw/home/Info/News_Events/News/~beba/ne_quereinstieg/?lan=de (30.11.2009).
- FH Technikum Wien (2009): *Fachhochschule Technikum Wien. Die größte technische Fachhochschule Österreichs!* Online: <http://www.technikum-wien.at/fh/> (30.11.2009).
- HTL Klagenfurt (2008): *Anrechnung HTL/Studium*. Online: http://www.htl1-klagenfurt.at/htl/index.php?option=com_content&task=view&id=98&Itemid=91 (30.11.2009).
- KTU (2009): *Referent für studienrechtliche Angelegenheiten*. Online: http://www.ktu-linz.ac.at/cms/index.php?option=com_content&task=view&id=824&Itemid=613 (30.11.2009).
- Land Oberösterreich (2007): *OÖ bundesweit Vorreiter mit neuem Ausbildungsmodell: Von der Lehre über die Werkmeisterschule zum Fach-*

- hochschul-Studium*. Online: http://www.ooe.gv.at/cps/rde/xbcr/SID-3DCFCFC3-98901839/ooe/PK_Sigl_Fachhochschule_22.5.2007_Internet.pdf (30.11.2009).
- Leuven and Louvain-la-Neuve Communiqué (2009): *The Bologna Process 2020 - The European Higher Education Area in the new decade. Communiqué of the Conference of European Ministers Responsible for Higher Education, Leuven and Louvain-la-Neuve, 28-29 April 2009*. Online: http://ond.vlaanderen.be/hogeronderwijs/bologna/conference/documents/Leuven_Louvain-la-Neuve_Communiq e_April_2009.pdf (30.11.2009).
- London Communiqué (2007): *Towards the European Higher Education Area: responding to challenges in a globalised world*. Online: <http://www.ond.vlaanderen.be/hogeronderwijs/bologna/documents/MDC/London-Communiq e-18May2007.pdf> (30.11.2009).
- Markowitsch, J., Benda-Kahri, S., Prokopp, M. et al. (2008): *Neuausrichtung der berufsbildenden Schulen f r Berufst tige. Eine Studie im Auftrag des bm:ukk. Krems*. Online: <http://www.donau-uni.ac.at/imperia/md/content/weiterbildungsforschung/publikationen/bhs-endbericht-gesamt-aktualisiert.pdf> (30.11.2009)
- M uskens, Wolfgang, Tutschner, Roland & Wittig, Wolfgang (2009): "Accreditation of Prior Learning in the Transition from Continuing Vocational Training to Higher Education in Germany". In: Tutschner, Roland; Wittig, Wolfgang; Rami, Justin (Eds, 2009): *Accreditation of Vocational Learning Outcomes: Perspectives for a European Transfer*. ITB_Forschungsberichte 43/2009, Bremen: Institut Technik und Bildung (ITB), Universit t Bremen, pp. 75-98. Online: <http://nbn-resolving.de/urn:nbn:de:gbv:46-ep000106120>
- Nindl, Sigrid (2007): *Wissenschaftliche Begleitung der Ausbildungskooperation von TGM (Kolleg) und Technikum Wien im Bereich Elektronik. Endbericht zu Erhebungsphase I*. Wien: 3s Unternehmensberatung GmbH
- Official Journal of the European Union (2005): *Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications*. Online: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:255:0022:0142:EN:PDF> (30.11.2009)
-  sterreichischer Fachhochschulrat (2008a): *Anrechnung nachgewiesener Kenntnisse*. Online: http://www.fhr.ac.at/fhr_inhalt/03_studium/anrechnung.htm (30.11.2009).

- Österreichischer Fachhochschulrat (2008b): *Studienberechtigungsprüfung*.
Online: http://www.fhr.ac.at/fhr_inhalt/03_studium/zugangsvoraussetzungen.htm#studienbp (30.11.2009).
- Österreichischer Fachhochschulrat (2009): *Aktuelle Statistik Studienjahr 2007/08*. Online: http://www.fhr.ac.at/fhr_inhalt/00_dokumente/Dokumente/Statistiken_2007-08_Web.pdf (30.11.2009).
- Paracelsus medizinische Privatuniversität (2009a): *Universitätslehrgang Wound Care management: Überblick*. Online: <http://www.pmu.ac.at/de/1129.htm> (30.11.2009).
- Paracelsus medizinische Privatuniversität (2009b): *Studium der Humanmedizin. Bewerbung*. Online: <http://www.pmu.ac.at/de/113.htm> (30.11.2009).
- PH Wien (2009a): *Anrechnung von anderen Veranstaltungen, Lehrgängen*. Online: [http://www.phwien.ac.at/fortbildung/institute-84/fb1/themenbereiche-986/begleit-u-foerderlehrerin-334/anrechnungen-485.html?L=0&no_cache=1&sword_list\[0\]=anrechnung](http://www.phwien.ac.at/fortbildung/institute-84/fb1/themenbereiche-986/begleit-u-foerderlehrerin-334/anrechnungen-485.html?L=0&no_cache=1&sword_list[0]=anrechnung) (30.11.2009).
- PH Wien (2009b): *Ansuchen um Anerkennung von Prüfungen für die Studienberechtigungsprüfung*. Online: http://www.phwien.ac.at/fileadmin/phvie/users/18/APS/PDF/Stud_ber_Ansuchen_Anerkennung_PHW.pdf (30.11.2009).
- Prokopp, Monika & Luomi-Messerer, Karin (2009): "Permeability between Vocational Education and Training and Higher Education: An example of good practice from Austria". In: Tutschner, Roland; Wittig, Wolfgang; Rami, Justin (Eds, 2009): *Accreditation of Vocational Learning Outcomes: Perspectives for a European Transfer*. ITB_Forschungsberichte 43/2009, Bremen: Institut Technik und Bildung (ITB), Universität Bremen, pp. 11-33. Online: <http://nbn-resolving.de/urn:nbn:de:gbv:46-ep000106120>
- Schmöllebeck, Fritz (2009): *Anerkennung von Vorkenntnissen. Beispiele aus der hochschulischen Praxis an der Fachhochschule Technikum Wien*. Online: http://www.fhk.ac.at/typo3conf/ext/naw_securedl/secure.php?u=0&file=fileadmin/fhkdata/Termine/LLL_2009/Anrechnung_FHV-091019-FS.pdf&t=1257798959&hash=eb0f414a5326be51c16e8981d68d3d63 (30.11.2009).
- Schneeberger, Arthur & Novak, Sabine (2008): *Lehrlingsausbildung im Überblick. Strukturdaten und Ergebnisse europäischer Erhebungen (Edition 2008)*. ibw-Schriftenreihe 142. Wien: ibw. Online: <http://www.ibw.at/html/fb/fb142.pdf> (30.11.2009).
- Sigmund Freud Universität (2009a): *Informationen für PsychotherapeutInnen*. Online: <http://www.sfu.ac.at/index.php?article=17> (30.11.2009).

- Sigmund Freud Universität (2009b): *Zulassung zum Studium*. Online: <http://www.sfu.ac.at/index.php?article=8> (30.11.2009).
- Spiel, Christiane, Finsterwald, Monika & Schober, Barbara (2009): *Anerkennung non-formalen und informellen Lernens an Universitäten. Expertise im Auftrag der Uniko*. To be published.
- Statistik Austria (2008): *Bildungsklassifikation International Standard Classification of Education ISCED 1997*. Online: http://www.statistik.at/web_de/klassifikationen/klassifikationsdatenbank/weitere_klassifikationen/bildungsklassifikation/index.html (30.11.2009).
- Studienbeihilfenbehörde (2008): *Studienberechtigungsprüfung*. Online: <http://www.stipendium.at/stbh/studienfoerderung/sonstige-foerderungen/studienberechtigungspruefung/> (30.11.2009).
- Tritscher-Archan, Sabine (2007): *Thematic Overview . The Austrian vocational education and training system*. Online: <http://www.refernet.at/index.php/publikationen/forschung> (30.11.2009).
- VHS Floridsdorf (2008a): *Berufsreifeprüfung*. Online: <http://www2.vhs21.ac.at/2.bw/brp/index.htm> (30.11.2009).
- VHS Floridsdorf (2008b): *Studienberechtigungsprüfung*. Online: <http://www2.vhs21.ac.at/2.bw/sbp/index.htm> (30.11.2009).
- UMIT (2009): *Anerkennung von Prüfungen für alle Studienrichtungen gemäß der jeweils geltenden Studien- und Prüfungsordnungen der UMIT*. Online: <http://www.umat.at/dataarchive/data97/anererkennung.pdf> (30.11.2009).
- Webster University (2009): *Overview*. Online: http://www.webster.ac.at/vienna/w/pros_001.html (30.11.2009).
- Winkler, Edith (2008): *Durchlässigkeit im österreichischen Fachhochschulsektor in politischen Steuerungs- und Entscheidungsprozessen*. Master thesis, University of Vienna. Vienna.
- Zgaga, P. (2008): "Developing recognition policies in the European Higher Education Area bringing trends and developments together". In: *New challenges in recognition: Council of Europe higher education series No. 10*, pp. 97–111.

Case Study on “VAE” Implementation Procedure and Practice in Higher Education

M'Hamed Dif, Jean-Alain Heraud, Paul Nkeng

1. Introduction

Since 2002, VAE (Validation of Acquired Experiences) has become an all encompassing instrument for identification, assessment, accreditation and certification of experiential informal and non-formal LLL outcomes. At the end of the process, successful candidates are delivered certificates and degrees that are identical to those awarded through the school-based initial educational and training system. The delivered certificates and degrees are already registered within a unique nation-wide repertory of vocational qualifications/certifications called “RNCP” and connected with different levels of the national qualification framework.¹ VAE implementation in higher education is currently accompanied in parallel by two other validation instruments specifically oriented towards the promotion of access to the university:

- VAPP (“Validation des Acquis professionnels et personnels”, i.e. Validation of Acquired Professional and Personal experiences and competences) was initially introduced to allow individuals with limited formal education to access different levels of higher education. It has been based on the assessment and accreditation of their prior work and learning experience.
- VES (Validation of Educational Studies in higher education) which is specifically designed to allow for a partial or a full accreditation of prior (certification-based) formal learning acquired within national or foreign private or public institutions (basically at post-baccalaureate levels).

This report integrates within the framework of the implementation of the last stage of the CREDIVOC project investigation. It concentrates on exploring the case of VAE as a basic and overarching instrument for the accreditation of experiential learning outcomes through a case study. The first section is an over-

¹ Dif (2008); (2007); Hawley & Roy (2007).

view of its gradual development since the 1930s. The second section examines the basic characteristics of the VAE approach, methodology and its functioning in practice, with specific reference to the case of its implementation procedure in higher education. The last section is a concluding exploration of its observed outcomes and impacts.

2. Background Overview of VAE Gradual Development

Although the validation of experiential learning is not new to the French education and training system, its development has been, for the last seven decades or so, a long, gradual and adaptive process in scope and content.

The first validation notion was initiated by the Act 10 July 1934. In fact this law provided the primary general conditions for the delivery of an “engineer diploma” to individuals who accumulated at least five years of working experience in the engineering field.²

The second major development also took place in higher education by the mid-eighties. The decree of 23 August 1985 extended the concept of validation, under the name VAPP (“Validations des Acquis Professionnels and personnels”, i.e. Validation of Acquired Professional and Personal experiences and competences) to allow adults (over 20 years old) with a limited formal education to access higher education studies through a non-certification based accreditation of their prior professional and personal learning and competences. In practice, applicants were exempted from normal entry requirements and individual courses. This validation regime, which is still in effect, sets out specific procedures to identify, assess and make a general judgement about the candidate’s potential and ability to usefully complete her or his course of study. This is based on checking that the level of responsibilities and related issues addressed by the candidate, demonstrate the skills and knowledge that correspond effectively to the normal entry required qualifications. For this purpose, criteria, standards and procedures for identification and assessment of the candidate’ prior professional and personal experiences and responsibilities, in connection with their relevance to the chosen study programme, are fully taken into consideration. VAPP is still, up to now, one of the most used non-certification based instruments for promoting access to higher education,

2 Dif (2007); Lenoir (1996).

especially among individuals with a deficient formal education but possessing a strong work experience. However, VAPP remains limited in scope, as it does not allow for access to formal education and training levels lower than those of higher education.

In parallel, in 1986, the Ministry of Employment created a network of over 100 inter-institutional centres for competence audit called CIBC (Centres Interinstitutionnels de Bilans de Compétences). They were designed to enable individuals to have their professional and personal competences and skills assessed through a BC (“Bilan de Compétences”, i.e. competence audit) with the aim of allowing them to informally define or redefine their projects for career development and related learning. After a period of experimentation, the 1991 Law of the 31st December gave all workers, with at least five years of work experience, a legal right to have access to a competence audit, including the possibility of benefiting from a paid leave for a competence audit CBC (“Conge du Bilan de Compétences) of 24 working hours. However, as a simple guidance instrument, BC has no formal validation role. It might just guide informally its beneficiaries to construct or reconstruct their professional and learning projects and even to go for a validation instrument like VAPP or VAE.³

At the beginning of the 90s, the 1992 Act and its successive implementation decrees and regulations extended effectively the concept of validation to a certification-oriented assessment and accreditation of prior work-based learning under the acronym VAP (“Validation des Acquis Professionnels”, i.e. Validation of Professional Experience) covering all levels of qualifications and certifications connected with the national qualification framework. It was designed to allow any individual who accumulated regularly or irregularly a working experience of five years (full-time or equivalent) in at least one activity related to the domain of the candidate’s targeted diploma, to apply for an exemption in all the required credit-units but one (n-1). The candidate can be an employee, an artist or an independent worker. This is also possible regardless of whether the applicant is employed or unemployed at the application time.⁴ Following its introduction and implementation within different ministries (Ministry of Education and Agriculture in 1992-1993, Ministry of Youth and Sports in 1999), 75% of the universities were engaged in VAP process by the end of the 90s.⁵

3 Dif (2008); Hawley & Roy (2007); Calafuri (1996).

4 Dif (2001); Ravat (1997).

5 Van Kleef (2008).

However, it was observed that this extended version had in practice the following shortcomings:

- Being limited exclusively to work-based experiences, it did not take into consideration all other forms of experiential learning.
- As a certification-based validation instrument, it did not allow the successful candidates to have an immediate access to certification. This was due to the fact that VAP did not allow any potentially successful candidate to have access to a full exemption in all the credit units required for the targeted diploma.
- The requirement of a minimum professional experience of five years was found to create some barriers for young adults to have access to VAP in their early career-learning project formation.

In 2002, additional legislations (via the Social Modernisation Law of the 17 January and its consecutive implementation decrees) were passed to deal with some of the observed deficiencies of VAP and place a national legal duty on all higher education institutions to move on with the key objectives of the Lisbon strategy and Bologna- Copenhagen process by promoting further access to learning, especially in higher education through the introduction of four basic related reforms:

The first and most important is connected with broadening the scope of the validation instrument to take into consideration all the individuals prior experiential non-formal and informal learning outcomes, including those connected with charity work, social, political and cultural activities under the new acronym: VAE (“Validations des Acquis de l’Expérience – Validation of Acquired Experience). This also included reducing the minimum experiential period required for access to the validation system from five to three years. As it can be seen in the case study, the quality assurance and the formative dimension of the VAE approach were reinforced through its implementation procedure.⁶

With the aim of promoting the mobility of holders of national and foreign formal qualifications and certification between different universities and curricula, the 2002 Act and its decree of the 16th April 2002 introduced and implemented a specifically targeted validation instrument called VES (“Validation des Etudes Supérieures”, i.e. Validation of Educational Studies in higher education). Thus,

6 Van Kleef (2008); Hawley and Roy (2007).

the VES allows any French university to give a partial or a full recognition (in terms of awarded equivalent-credit units) for access to one of its deliverable degrees on the basis of the assessment of the applicant's prior formal qualifications and related certifications acquired within any public or private higher education institution in France or abroad. Only one application file has to be submitted at a time, and it has to include all the necessary documents which clearly make explicit the candidate's prior formal qualifications and related certifications (including diploma supplements) in connection with the targeted diploma. This instrument also has a formative dimension, as VES procedure allows the validation Jury to accompany its assessment and accreditation decision with counselling, guidance and even accompaniment provision for the candidate to construct his or her learning project.

The third type of reform introduced by the social modernisation act of 2002 was the creation, in May 2002, of the National Commission for Vocational Certification (CNCP- la Commission Nationale de la Certification Professionnelle) as an inter-ministerial, inter-institutional and inter-professional body. Taking in charge these changes, it replaced the previous "Technical Accreditation Commission of Technological Qualifications (Commission technique d'homologation des titres et diplômes de l'enseignement technologique)".⁷ Since then, the CNCP body has three key objectives:

- Establishing and maintaining a National Repertory for Vocational Qualifications/Certifications (Répertoire National des Certifications Professionnelles – RNCP: created also in May 2002);
- Overseeing the reform and updating of qualifications (diplomas, certificates and titles) on the basis of developments and changes within the educational system and the labour market;
- Providing recommendations to organisations and institutions that deliver vocational qualifications and provide information about the relationship between different types of qualifications.

The "CNCP" commission is composed of 43 members: 16 ministerial representatives, 10 from the social partners, 11 qualified experts and 3 representatives of the Chambers of Commerce and 3 representing the regions. It has also set up a specialized Commission to examine requests to include new qualifications/certifications in the National Repertory for Vocational Qualifications/Cer-

7 Hawley & Roy (2007).

tifications (Répertoire National des Certifications Professionnelles – RNCP). The latter (i.e. RNCP) which is functioning on the basis of a national secretariat and a regional networking, was concomitantly created in 2002 “to catalogue all existing certificates in order to be able to establish bridges and equivalences between them, with a view of promoting employees’ mobility and preparing career plans”.⁸

By the end of 2006, the RNCP contained over 3,500 vocational qualification/certification descriptors called “Fiches RNCP”, i.e. RNCP description sheets of registered certifications. Depending on the delivering bodies, these description sheets concern three main categories of registered certifications:

- National Vocational Certificates (diplomas) delivered by the State through its different ministries (education, agriculture, youth & sport) automatically and permanently registered in the national repertory “RNCP”.
- Vocational Qualification Certificates (“CQP: Certificats de Qualification Professionnelle”) created and delivered by the sectors under the responsibility of social partners. Their registration (for 5 years) within “RNCP” is requested by the concerned sector bodies and approved by the commission “CNCP”.
- Certificates and titles delivered by chambers of commerce, public or private institutions under their own names. They can also be registered (also for 5 years) within the National Repertory for Professional Certifications (RNCP) at request and after the approval of the National Commission for Vocational Qualification Certifications “CNCP”.

It is very important to underline in connection with this development, that the French education and training (E&T) system is now based on one single system of qualification and certifications, rather than separate systems for those qualified through VAE and those who got the qualifications via formal initial educational and training routes. Certificates and titles awarded by different educational and training bodies do not differentiate between certifications obtained through VAE instrument and those obtained via school-based formal routes. This development, which can be effectively considered as reinforcement of the quality assurance dimension of the VAE procedure, might be quite different in many other European countries.⁹

8 Hawley & Roy (2007).

9 Dif (2008); Hawley & Roy (2007); Boudier & Kirsch (2007).

The fourth set of reforms initiated by the 2002 Act, is connected with the adoption of the EU standardised three-cycle system (Bachelor – Master – Doctorate, called in France LMD, i.e. Licence-Master-Doctorate) leading to the simultaneous introduction and implementation of ECTS (European Credit Transfer System) distributed (cumulatively) through the French Qualification Framework (FQF) level grid structure as follows:¹⁰

- FQF3: 120 ECTS for the level (Bac.+2: EQF 5) such as BTS (High Technician Certificate) and 120 ECTS for DUT (University Diploma in Technology): EQE 5 (French NQF 3);
- FQF2: 180 ECTS for the level (Bac.+3: EQF6) as it is the case with the Bachelor (Licence) degree and 240 ECTS for the level (Bac.+4: EQF7) i.e. the first year of Master degree called M1.
- FQF1: 300 ECTS for the level (Bac.+5: EQF7), i.e. Master degree (2nd year of Master degree called M2) and 480 ECTS for the Doctorate level (Bac.+8: EQF8).

Universities which already had experience with VAPP (1985) and VAP (1992) were relatively well prepared to implement the 2002 validation reforms. They share their experience with less prepared universities via their collaboration within the national university network. Moreover, the national training plan involving 900 participants contributed to facilitating voluntary harmonisation and to the development of a generally accepted procedure for the identification, assessment and validation approach. Now, all higher education institutions are offering access to VAE in most of their qualification programmes.¹¹

3. An Example of the Functioning of the VAE Procedure in Higher Education

This illustrative case study integrates within the framework of the implementation of the last stage of the CREDIVOC project investigation. It will be limited to the example of VAE as an all encompassing formative and summative instrument for identification, assessment and validation of prior informal and non-formal learning. It explores the nature of its approach, objectives and functioning mechanisms in general and through its implementation practices in higher

¹⁰ M.E.N. (2006).

¹¹ Van Kleef (2007).

education with a specific reference to the exemplary case of technicians in the field of “sciences en techniques”. The research method is based on desk research (documentation and reports) concerning VAE implementation practices, supported by focus group interviews with experts and (directly and indirectly) involved institutions and stakeholders (including the silent partners). This is conducted through the following sub-sections:

- Basic characteristics of the VAE approach and its validation mechanisms;
- VAE functioning process in practice;
- Impact and implications of VAE implementation in higher education.

→ *Basic characteristics of VAE approach and its validation mechanism*

In the literature on the identification, assessment and/or accreditation of learning outcomes, there are references to the existence of two parallel or mixed approaches:

- a “summative instrument” usually considered as a “top-down” (or centrally initiated and/or directed) approach more connected with assessment and accreditation within the formal learning pathways, and
- a “formative” instrument for identification, evaluation and accreditation of informal and non-formal prior learning, which often implies “bottom-up” or a more decentralised system of validation.

As it is the case in some other EU countries such as Norway, France uses a combination of both approaches through VAE instrument. This is mainly due to its following basic and distinctive characteristics:

- Although VAE was centrally initiated through the national legislations in order to reinforce its nationwide legitimacy and quality assurance, its implementation via sectoral and regional cooperation partnership networking remains a highly decentralised process.
- As a nationwide qualification formation and certification oriented instrument for the validation of experiential learning, it uses the same referential standards and benchmarks as those used by the national educational and training system for assessment of formal learning and certification delivery.

- As a highly individualised counselling and accompaniment process allowing the candidates to identify effectively their prior competence portfolios and construct their own validation and learning projects, the VAE can also be considered as a guidance instrument with a formative dimension.

In addition to its character of being a “top-down” and “bottom-up” approach to validation, VAE is also based on a combination of two interrelated referential standards: educational qualification standards and occupational standards.¹²

- Educational standards refer to the qualification formation processes and its inputs in terms of learning subjects, syllabuses, teaching and assessment methods, etc. They are usually written as curricula, teaching and training programmes or qualification specifications.
- Occupational standards are classifications and descriptors of main jobs and related tasks to be done at work. They are usually written as competences and formulated in terms of outcomes.

At present, the VAE system integrates simultaneously the two referential standards in its assessment and validation process of the applicant’s portfolios of identified experiential competences in connection with the targeted diploma and its educational and training programme within the certification delivery institution. Since the 2002 reforms, each targeted diploma has to be approved by the CNCP (i.e. the National Commission for Vocational Certifications) and registered within the RNCP (National Repertory for Vocational Certifications) through a standardised description sheet (or “blanket”) called “Fiche RNCP”. This “RNCP description sheet” of the diploma describes the main qualification components in connection with job and occupation referential standards through its following basic sections:

a) *Certification title*: specifying the exact type of certification to be delivered and its speciality.

b) *Authority in charge of certification*: this includes specifying:

- The certification delivery institution and the legally signing authority/authorities;

¹² Hawley & Roy (2007).

- The diploma referential preparation method.

c) *Qualification level and / or field of activity*: this includes specifying:

- The qualification/certification level within the French NQF;
- The referential code of the speciality within the educational and training activity nomenclature called Code NSF (Nomenclature des spécialités de formation).

d) *Summary of occupational referential and related competences and skills*: this includes describing the three related types of competences and skills:

- Discipline specific skills and competences
- General scientific skills and competences
- Transversal competences

e) *Accessible jobs and sectors of activity by the holder of the certification or the title*: This includes specifying the sectors activity accessible in the labour market including reference to job referential through their registration code within the labour market repertory for jobs and occupations called ROME (“Répertoire Opérationnel des Métiers et des Emplois”). Since 2006, RNCP and ROME referential standards and requirements are interconnected through the RNCP description of the diploma.

f) *Forms of access to the certification*: This includes specifying:

- The required study units (or modules), their contents and distribution over three categories of qualification formation: discipline specific qualifications, general scientific qualifications and transversal qualifications;
- The number of the required credits to be validated in terms of ECTS and their distribution over the study units or modules;
- The type of alternative access instruments to certification which can be any of the following: the usual formal educational and training pathways, apprenticeship, VAE, etc. This includes specifying whether the used instrument for access to certification is based on the creation of an assessment and validation jury as it is the case with VAE (VAE jury).

g) *Links with other types of certifications on national, European and international levels*: this includes specifying whether this certification has other equivalent

types of certification on the national, European or international levels. This also includes specifying whether there are any bilateral or multilateral cooperation and partnership agreements connected with the related study programme.

h) Legal background basis: to be specified through reference to the legislations and regulations such laws, decrees and regulations connected with its creation and implementation.

i) Links to further information: i.e. links information about the related educational programme, its development and the qualification and certification delivery institutions.

As is the case in some of EU countries which already have an established procedure for the assessment and validation of experiential informal and non-formal learning, the VAE uses a portfolio method. It is a mix of instruments used through the consecutive stages of VAE implementation procedure (especially at the documentation stage preceding the assessment by the VAE jury) to produce, according to agreed standards and expert mediation and supervision, a coherent set of file documents and/or work samples substantiating the candidate's prior skills, competences and knowledge in different ways. Consequently and in contrast with other simple methods (exclusively based on either tests, examinations, declarations, observations, simulation, or snapshots of extracted evidence from work), the portfolio method is a mixed approach which plays an important role in making non-formal and informal learning visible for both formative and summative purposes.¹³

→ *VAE functioning process in practice*

Following the 2002 Social Modernisation Act, the implementation decrees outlined the basic principles of the VAE functioning process in practice through four main consecutive stages, namely:

- Information and guidance;
- Feasibility of the candidature;
- Candidate's portfolio preparation and accompaniment;

¹³ Cedefop (2007).

- Assessment, validation and related follow-up guidance and accompaniment.

As regards the first stage, information and guidance, individuals interested in VAE have a direct access to many sources of information provision, guidance and even supervision on national and regional levels. In addition to documentation standpoints, repertoires and websites connected with national government ministries and sector bodies, each academy, local authority and university on regional level is equipped, at least, with one VAE information and guidance provision department/centre and related website. This usually includes:

- Reception, documentation, information provision and guidance about VAE process and its steps, access requirements, necessary accompaniment and financing possibilities;
- Identifying the most suitable type of certification to the candidate's experiential learning profile, or instead redirecting the candidate towards other instruments such as competence audit ("bilan de compétences") or undertaking different educational and/or training if the VAE is found to be not adapted to his or her career-learning project.

At the university level for instance (according to recent interviews with experts and managers of VAE departments), the VAE functioning at this stage is implemented through a succession of two basic interconnected steps:

- Individualised reception and guidance which allow the candidate to formulate or reformulate explicitly his or her VAE project by primarily identifying, among the existing types of certification, the targeted diploma which is more in line with the accumulated prior experiential learning. If no suitably corresponding diploma can be found within the concerned university, the candidate is redirected towards another institution and/or other alternative instrument.
- Individualised targeted information provision and guidance about the VAE process and the next steps to follow for the candidate who explicitly identified a targeted diploma within the concerned educational and certification delivery institution.

The second stage in the VAE process – *feasibility of the candidature* – consists of preparing and submitting an access feasibility administrative application to the selected institution for the targeted certification. This stage is designed

to avoid committing candidates with highly reduced chance of success to go on with the remaining stages of the process. It is a three-step process: pre-admissibility application preparation, pre-admissibility reviewing and justified feasibility decision:

Pre-admissibility application decision: the completion and submission of the pre-admissibility application usually goes through an individualised and supervised feedback process between the applicant and the coaching person. It has three basic parts:

- Description of his or her learning and professional trajectory, project and motivation (or commitment) in close connection with subject of application and the identified targeted diploma. This should be done in 2 to 3 pages.
- Prior experiential activity description (in close connection with the subject of the application and its identified targeted diploma). This should be done in about 10 pages at most.
- CV (of 2 to 3 pages) in which it is clearly put forward all exercised activities and acquired (specific and transversal) competences in close connection with the VAE application subject and its identified targeted diploma.

Pre-admissibility reviewing: When the pre-admissibility application is formally completed, it is submitted to the person(s) in charge of the identified targeted diploma to look into the admissibility of the applicant's candidature by taking into consideration two categories of primary formal and pedagogical requirements:

- According to the formal criteria, the candidate has to justify an accumulated (continuous or discontinuous, full or part time) working experience of at least three years (calculated on a full-time basis) directly connected with the field of the targeted certification.
- In connection with the pedagogical requirement, the teaching expert(s) in the field examine(s) the feasibility of the application with the aim of identifying whether the acquired experience of the candidate may actually correspond to the qualification contents of the targeted diploma.

Justified feasibility decision: Within a two-month period after the submission of the pre-admissibility application, the reviewing expert(s) take(s) a justified

feasibility decision (concerning the pedagogical content, including whether the requirement of acquired experiences of three-years in the domain are met). In both cases of refusal and acceptance, the decision has to be justified. If the justified favourable decision leads to the launch of the third stage (including guidance for further development of the application file), the motivated unfavourable decision may include guidance and reorientation towards another VAE/diploma or access to further learning. This reviewing stage remains an illustrative intermediary indicator as it does not prejudge the scope of the final validation, which will be exclusively determined by the VAE jury.

The next stage is the *candidate's portfolio preparation and accompaniment*. This stage effectively allows the pre-admitted candidate to explicate and analyse his or her prior experiences in a more formalised and structured way by preparing the VAE folder (folder 2) of the "portfolio of acquired experiences and competences". From this stage onwards, the candidate is strongly advised to have an effective supervision or mentoring support from the VAE department within the validation institution (university).

The completed application is generally a four-part folder with an introductory administrative section and an annex of supporting documents with a glossary at the end:

- *Introductory administrative section*: it includes the following administrative elements: cover page with the validation institution official heading (name of the applicant, targeted certification and related study units); facts sheet (with administrative personal and professional details); VAE formal application and registrations sheets.
- *Part A: VAE project – motivations and trajectories*: in this part the candidate describes his or her VAE project, motivations and related professional and personal trajectories in close connection with the targeted certification.
- *Part B: Synthesis of personal, professional and learning trajectories*: this includes descriptors of professional activities, voluntary work and other commitments, certification and non-certification based learning, self-directed learning, practical training activities.
- *Part C: Analysis of acquired experiences*: this includes preparing an analytical synthesis table of acquired experiences and their justifications in terms of detailed descriptions of all accomplished missions with their illustrative concrete examples.

- *Part D: Complementary information:* This includes voluntarily selected further information by the candidate in order to back-up her or his candidature for the validation in connection with targeted type of certification.
- *Annex:* it includes the formal supporting documents.

The finalised folder is submitted to the VAE department at least one month before setting up the validation jury. The validity of the formal requirements (especially in connection with the supporting formal documents) is checked before transferring the file to the appointed member of the VAE jury for this purpose.

Although the accompaniment by an expert or tutor from the VAE department is optional in principle, it is highly recommended especially within the university. It allows the candidate to have access to a valuable methodological and guidance support in constructing a coherent portfolio of prior experiences and competences in connection with targeted certification and to be, at the same time, well prepared for the final interview by the VAE jury following the assessment of the submitted application. As for a coaching process, it is based on regular meetings organised either within the VAE department and/or through the use of ICT communication means such as telephony, emails, collaborative platform, etc.

The financial coverage of the process is usually secured through one of the CVT financing schemes depending on the employment status of the candidate as follows.

For employed individuals there are three open possibilities:

- Within the framework of the employer-directed continuing vocational training scheme (ED- CVT), i.e. through the enterprises training plan;
- Within the framework of “DIF” scheme (“Droit Individuel à la Formation” i.e. the individual right for access to training);
- Within the framework of the employee self-directed continuing vocational training schemes (ESD-CVT) such as VAE leave scheme financed through an independent accredited parity funds collector and manager called OPCA (“Organisme Paritaire Collecteur Agréé”).

For unemployed/job-seekers, there are two possibilities:

- ASSEDIC (Association for Employment in Industry and Commerce) which manages unemployment insurance funds
- Regional authority (Regional council).

For self-employed individuals, VAE is financed by a training insurance fund collector and manager called FAF (“Fonds d’Assurance Formation”).

The fourth stage, the *assessment and validation process*, takes place at an accredited institution for this purpose, which is usually the certification delivery institution such as the university. The assessment and validation are taken in charge by a jury which must be appointed and chaired in accordance with VAE related general regulations and with those specific to each type of qualifications. In general, a quarter of its members must be from the qualified representatives of the relevant occupational sector. Half of them must be representing employers and the other half has to represent employees with an equal gender balance. There are no further formal regulations regarding the remaining members of the jury, except the fact that it is not allowed at all for any person from the candidate’s company to be a member of the VAE jury. All of the accompanying counsellors who helped the candidates to construct their VAE application portfolios are also excluded from the VAE jury. Although the general regulations are the same, the composition and role of the VAE jury is slightly different in higher education. The president or the director of the higher education institution nominates the chair and members of the jury. In addition to the permanent members (such as the head of VAE department), the VAE jury must be made-up, in this case, of a majority of teachers/academics connected with the targeted certification and must include at least one expert member from a company or an external organisation (connected with the concerned occupational sector of activity) with the exclusion of the candidate’s employer organisation.

The jury’s role in this stage can be divided into three key steps:

Analysis and assessment: Each member of the jury reviews and analyses the entire applicant’s prior experiential knowledge, competences and skills (as presented within the candidate’s portfolio folder) and verify to what extent they comply with those required by the targeted certification (as specified in RNCP description sheet and/or study programme of the targeted diploma). The re-

sults of the assessment are reported on a standardised five-column evaluation report:

- *Required knowledge, skills and competences for obtaining the targeted diploma:* the enumerated elements in this column are common to all reviewing members of the jury. They are based on the study programme leading to the targeted diploma and the RNCP description sheet of the certification.
- *Identified knowledge, skills and competences by the reviewer:* in this second column, they are reported all the elements identified through the reviewing process of the applicant's portfolio folder by the reviewing member of the jury.
- *Validated knowledge, skills and competences:* this third column is obtained via a comparative analysis and assessment of the elements of the first two columns in order to identify to what extent the requirements of the targeted diploma (in the first column) are met by the candidates portfolio of prior knowledge, competences and skills (as reported in the 2nd column). Here are reported only the validated elements as results of a complete correspondence between the requirements of the targeted certification and the candidates portfolio of prior knowledge, competences and skills.
- *Non-validated knowledge, skills and competences:* the content of this fourth column is also the result of a comparative analysis of the elements of the first column and those of the second one in order to identify and report in this 4th column only those elements of knowledge, skills and competence which are not meeting the requirements of the targeted diploma.
- *Recommendations concerning the non-validated prior knowledge, skills and competences:* in this last column are reported the recommendations concerning only the non-validated elements of prior knowledge, skills and competences of the candidate.

The evaluation report of each member of the jury is concluded by:

- First, giving an overall appreciation or grading of the candidate's application;
- Secondly, specifying the questions and themes to be further clarified or even tested with the candidate during the interview stage.

Interview: although in general the interview may take place at the request of the jury or the candidate, it is an important compulsory step for validation in higher education. It allows the members to obtain complementary information and clarifications from the candidate and even to make some checks and/or tests in certain cases, especially in connection with the non-validated elements of the candidate's prior knowledge, skills and competences.

Deliberation and cases of final validation decision: then the VAE jury proceeds to synthesis and deliberation. As an outcome of the overall assessment, interview and deliberation, the jury takes its final decision concerning the validation whose scope can fall within the range of any of the following cases:

Case of a complete validation and immediate certification: it is the case in which the jury considers, in the light of the assessment process results, that the candidate's acquired prior experiential knowledge, skills and competences meet all those required for the delivery of the targeted diploma or grade. In this case the candidate receives via the VAE department an official notification signed by the president of the university informing him or her of a complete and immediate award of the targeted diploma. Then the candidate has just to complete the registration formalities and pay related fees in order to benefit from the awarded validation.

Case of partial validation: it is represented by the situation when the jury considers through deliberation, after the assessment and the interview, that the candidate's prior experiential achievements in terms of acquired knowledge, skills and competences meet only partially those required by the targeted certification. In this case, the jury determines the elements of knowledge, skills and competence corresponding to the targeted certification requirements in terms of exempted credit units and specifies at the same time, if necessary, those elements for which the candidate might go through a complementary check-up. As a result, the process goes on with the implementation of the undertaken decision as follows:

- Concerning the validated units, the candidate receives a related notification signed by the president of the university via the VAE department and then proceeds to registration and fee payment formalities.
- As for the non-validated part, the jury prepares a prescription with recommendations specifying the exact nature of the remaining elements of

knowledge, skills and competence to be acquired and how to go about it in order to access ultimately to a complete validation and obtaining the targeted certification. This can take many formative forms with the aim of identifying to the candidate the best ways the remaining study units either through certification or non-certification related further education or preparing a report on study or a project within the enterprise, etc. providing guidance and counselling as to how. It is implemented through tutoring and supervision by an expert appointed for a specified period by the jury in connection with the targeted diploma and its study programme appointed by the jury.

Case of no validation obtained: it represents a rare situation where the jury considers that all the candidate's prior achievements in terms of acquired knowledge, skills and competence do not meet any of those required by the targeted diploma. In this case the validation process for the targeted certification stops, and the candidate might be re-directed to other educational or guidance instruments such as competence audit ("bilan de compétences").

4. Conclusion: Outcomes and Impacts

The VAE outcomes and impacts can be assessed in terms of two interrelated categories of quantitative and qualitative performance indicators: VAE contribution to the achievement of its intermediary objectives in terms of input-output flow of beneficiaries; and VAE contribution to the achievement of some of its ultimate objectives such as:

- development of professionalisation and learning-path fluidity and complementarity between formal, informal and non-formal learning;
- promotion of the VAE beneficiaries' LLL, employability, flexibility and mobility in particular, and their socio-professional promotion in general.

In order to keep track of the development of VAE performance in terms of its input/output flow in higher education, it is important to distinguish between two periods: prior and after the 2002 VAE related reforms.

Prior to the 2002 Act, a survey was carried out in 1998 by the DPD (Department for Programming and Development) and the DES (Department of Higher Edu-

cation) of the Ministry of National Education (MNRT), regarding the effective practice of VAE. It revealed the following developments:

- Most universities have responded favourably to the implementation of the “VAP-92” launched by the 1992 Act (as a certification-based instrument), through the creation of necessary organisational structures for the identification, assessment and the accreditation of experiential learning. In 1998, about 12,000 accreditation applications were received and processed to various extents by all the universities.
- However, the dominant trend has been the non-certification based instrument for access to higher education, which has continued with the application of VAPP-85. This was due to the difficulty of making the necessary practical arrangements for a strict implementation of VAP-92 at the university level, at the time. The VAP-1992 required the use of modular courses in coherence with the prior experiential learning and, the individual units of the targeted diplomas tested by an independent jury. In order to increase their chances of success, most applicants had a preference for an examination based on inter-modular compensations.
- The beneficiaries of VAE regime in its two versions (VAPP-85 and VAP-92) were predominantly employed individuals representing 59%. As for the unemployed individuals, they were represented then by only 27%.
- Most beneficiaries of the validation process went for general education disciplines: 40% for three-to-four-year university degrees (B.Sc. and M.Sc.), and between 20% and 25% of them went for two-year university degrees. Then those who had a preference for vocational education diplomas came with 20% on a postgraduate level and less than 10% at the graduate level.

However, since 2002 the VAE has gradually gained an increasing real interest, particularly in terms of public opinion and interested individuals. Since its creation in 2002, there has been a considerable increase in demand from less qualified individuals seeking to take up a ‘second chance’ through VAE and to progress towards a higher level of qualifications. A total of over 50,000 certifications were awarded between 2002 and 2005 (10,700 in 2002; 17,700 in 2003 and 26,700 in 2005). In 2005, over 3,000 candidates were awarded a full certification by the Ministry of Employment alone – almost twice the number in 2004.¹⁴

14 Hawley & Roy (2007).

In addition to this progressive performance in terms of quantitative input-output flow of beneficiaries, the VAE has been observed to have ultimately an increasing qualitative impact on individuals, organisations and the whole educational and training system.

In connection with the socio-professional impact on individuals (especially its direct beneficiaries), the VAE has many interdependent advantages, namely:

- Social recognition of work and other experiential activities as a means of accessing lifelong learning and socio-professional promotion.
- Promotion of vocational and social mobility, i.e. through the validation of work-related knowledge and continuing access to further learning, the individuals are more able to improve the level and the quality of their qualifications and ultimately have more open possibilities for job promotions; develop and diversify the portfolio of their knowledge, skills, competences and vocational identities; and adapt to changes in labour market requirements and working conditions.

Concerning its impact on the educational and training system in general and higher education in particular, VAE contributed to its professionalisation through bridging the link between formal, informal and non-formal learning. This has been achieved through its following interdependent fundamental roles:

- Widening the scope of diploma delivery modes within a unique formal qualification and certification framework, whereby the traditional initial educational and training activity is no longer the unique way of accessing qualifications and related certifications. The validation of experiential learning is also considered as another mode of access to any type of certification delivery within the national qualification framework.
- Establishing, as a consequence, a new dynamic and more coherent relationship between occupational activity and formal modes of certification.
- Facilitating the creation of a real self-initiated and directed matching between vocational education and training, employment requirements and the individual's needs for vocational identity and career development.
- Development of a learning path-fluidity and complementarity within and between different components of the educational and training system as a whole.

The “VAE” has also been observed to constitute, through its assessment instruments, a new external indicator for human resources evaluation and development within different organisations. It is more objective than the internal performance evaluation procedures. With reference to VAE functioning procedure, especially in its assessment and validation stage which combines both “occupation referential” and “diploma/curricular referential”, the organisations can develop systems which allow for the identification of reliable criteria to be used in optimising the recruitment and training policy and career development schemes for their employees. For this purpose, they can also consult the existing RNCP diploma description sheet which combines both referential standards and connects the national repertory for vocational qualifications/certifications (RNCP) with the labour market repertory for jobs and occupations (ROME).

Moreover, in addition to these outlined performance related effects, it is also observed that VAE has other qualitative impacts connected with its recent developments, namely through:

First, its contribution to the reinforcement of the “European dimension” and the transference feasibility to other contexts: as a transparency and recognition instrument of informal and non-formal learning, the VAE integrates well within the implementation of the common ground strategy guidelines and recommendations of the “Lisbon-Bologna-Copenhagen” processes for the promotion of cooperation and exchange of effective practices within and between all EU countries through.¹⁵

- Improving quality and effectiveness of education and training throughout life in Europe for the creation of a knowledge-based economy and society;
- Introduction and effective implementation of the European three-cycle (Bachelor-Master-Doctorate) higher educational system, based on modularisation, ECTS system and diploma supplement;
- Development and implementation of national and sectoral qualification frameworks connected with the European qualification framework (EQF);
- Creation of ECVET and common ground principles for identification, assessment and validation of informal and non-formal learning.

15 (Dif, 2008)

Secondly, reinforced quality assurance and formative dimensions of its functioning in practice through the procedural requirements embodied in the legislation and the assessment and validation process by the VAE jury.¹⁶

5. References

- Bouder, A. & Kirsch, J.-L. (2007): *The French Vocational Education and Training System: like an unrecognised prototype?*, European Journal of Education, Vol.42, N° 4, pp. 503-521.
- Calafuri, . (1996): *Heurs et malheurs du bilan de competences*, in la Revue de l'IRES, N°20, hiver 1996, pp. 83-108
- Cedefop (2008): *Validation of Non-formal and Informal Learning – A Snapshot 2007*, Luxembourg: Office for Official Publications of the European Communities.
- Centre INFFO (2002): *“Vers une nouvelle culture de la reconnaissance du travail et des activités”*, Supplément à INFFO FLASH N° 588-589, avril-mai.
- Colardyn, D. and Bjørnåvold, J (2004) : *“Validation of non-formal and informal learning: policy and practices in EU MS”*, European Journal of Education, Volume 39, Number 1, March 2004 (pp. 69-90).
- Colardyn, D. and Bjørnåvold, J. (2005): *The learning continuity: European inventory on validating non-formal, and informal learning - National policies and practices in validating, non-formal and informal learning*, Cedefop Panorama series n°117, Luxembourg: Office for Official Publications of the European Communities.
- Dif, M. (2008): *“On the Validation of Acquired Experiential Learning within the French VET System: Its functioning and role in promoting professionalisation and LLL”*, in L. Deitmer, P. Kämäräinen and S. Manning (Eds.): *Proceedings of the ECER-VETNET Conference 2008, “From Teaching to Learning” in Gothenburg - Sweden (10 -12 September 2008)*.
- Dif, M. (2007): *“Accreditation of experiential learning in vocational education to foster professionalisation”*, in Bernd Baumgartl, Fatma Mizikaci and Dean Owen (Eds.): *From here to there: Mileposts of European higher education*, Naverme/Publications, Vol.7B, March, pp.151-159.
- Dif, M. (2002): *“Accreditation for Experiential Learning in France: Evaluation and perspectives”*, In S.Manning, T. Griffiths & M.T. Oliveira (eds.), *VET-NET ECER 2002 Proceedings: “Current research in European vocational*

16 Van Kleef (2008).

education and human resource development" (<http://www.b.shuttle.de/wifo/abstract/!ecer02a.htm#Dif>).

- Dif, M. (2001): *"Competence assessment and accreditation for an integrated formal and non-formal learning: a French perspective"*, paper presented at JNET Fourth International Conference, 16-18 July 2001, University of Wolverhampton, UK. <http://www.leeds.ac.uk/educol/documents/00001784.htm>.
- EC (2007): *"The European Qualifications Framework (EQF)"*, European Communities, 2007
- Hawley, J. and Roy, S. (2007): *"European inventory on validation of informal and non-formal learning: France"*, CEDEFOP.
- Kirsch, E. (1999): *"Evaluer les acquis de l'expérience: Entre normes de certification et singularité des parcours professionnels"*, Céreq Bref, n° 159, décembre, pp.1-4.
- Knock, B.; Paddeu, J.; Savoyant, A.; Tessier, J.; Rivoire, B. (2002): *"Validation des acquis par l'éducation nationale : Dix ans d'expérience"*, in Supplément à INFFO FLASH, N°588-589, avril - mai, pp.4-5
- Labruyère, Ch. (2005): *"La VAE, quels candidats, pour quels diplômés ?"*, Céreq Bref, n° 230, May 2006. <http://www.cereq.fr/cereq/b230.pdf>.
- Labruyère, CH. et al (2002): *"La validation des acquis professionnels : Bilan des pratiques actuels, enjeux pour les dispositifs futurs"*, Céreq Bref n° 185, avril, pp.1-4. <http://www.cereq.fr/cereq/b185.pdf>.
- M.E.N.R.T., (2000): *"Validation des acquis professionnels par le système éducatif : une nouvelle composante de l'activité de certification"*, Note d'Information, N° 41, octobre.
- M.E.N.R.T., (1998): *Validation des acquis professionnels (1994-1997): bilan et perspectives*, Publication du Ministère de l'Éducation Nationale, de la Recherche et de la Technologie (M.E.N.R.T.).
- Souto-Otero, M.; Hawley, Jo & Nevala, A.-M., (Eds.) (2008): *"European Inventory on Validation of Informal and Non-formal Learning 2007 Update"*, a final report to DG Education and Culture of the European Commission.
- Terrot, N. (1997): *Histoire de l'éducation des adultes en France*, Paris: L'Harmattan.
- Van Kleef, J. (2008): *"Eight international case studies in prior learning assessment and recognition"*, the Pan-Canadian Framework Project (annex C), Canadian Institute for Recognizing Learning, pp.341-346., in Mary Morrissey and Douglas Myers (Eds.): *Achieving our potential: an action plan for prior learning assessment and recognition (PLAR) in Canada, Report*, PLA Centre, Halifax, Nova Scotia, October 2008.

Validation of Learning Outcomes through Individualisation in Finnish Adult Education

Marja-Leena Stenström

1. Introduction

The aim of this article is to focus on validation of prior learning in adult vocational education and training (competence-based qualifications) through individualisation.

Qualifications in vocational adult education and training are carried out as competence-based qualifications. These qualifications can be awarded regardless of how and where the competences and knowledge have been acquired.¹ These can be demonstrated and recognised in officially approved practical skill demonstrations/tests. Candidates can take their exams after or during formal training or without any formal training at all.² Although taking part in competence tests does not necessarily require formal preparation, many students acquire preparatory training, in which individual learning programmes are offered. About 95% of candidates attend some training before taking a competence-based test.³

The system of competence-based qualifications is the most established form of validation/recognition in Finland. The competence-based qualifications came into force in 1994 with the implementation of the Vocational Qualifications Act 306/1994 and they were included in the Act on Vocational Adult Education (1998). The Finnish National Board of Education created the framework in close co-operation with the main labour market organisations and teachers.

There are three levels of competence-based qualifications: 1) vocational qualifications, 2) further vocational qualifications and 3) specialist vocational qualifications. The (initial) vocational qualifications completed as competence-based

1 Cedefop (2007).

2 Cedefop (2007).

3 The Finnish National Board of Education (2009a); Nyssölä (2004).

qualifications fully correspond with the qualifications completed in school-based vocational education and training, mainly taken by young people. The further and specialist vocational qualifications are mainly intended for adults with 3 – 5 years of work experience. People completing competence-based qualifications are usually adults aiming to improve their position in the labour market. Many of them are unemployed or at risk of becoming unemployed.

This article describes the findings of a Finnish case study on the validation of adult education (competence-based qualifications) through individualisation. Individualisation has been chosen as a tool for validation of learning outcomes in competence-based qualifications. The project for individualisation was carried out by the Finnish National Board of Education in the years 2000 to 2008. The participants in this case study were involved earlier with the above mentioned project and were eager to further develop individualisation in their institutional settings.

2. The System of Competence-based Qualifications in Adult Education and Training

→ *Implementation and stakeholders of competence-based qualifications*

At present the vocational qualifications framework comprises 52 vocational qualifications, 187 further vocational qualifications and 118 specialist vocational qualifications.⁴ The amounts of students participating in competence-based qualifications in 2000-2006 are seen in Table 1.

4 The Finnish National Board of Education (2007b); (2007c); Cedefop (2007).

Table 1

Competence-based vocational qualifications in Finland

| Year | Total number of participants | Number of participants who obtained a full qualification | Number of participants who were partly qualified |
|------|------------------------------|--|--|
| 2000 | 31,957 | 18,088 | 10,679 |
| 2001 | 37,019 | 20,709 | 9,953 |
| 2002 | 40,628 | 23,383 | 10,138 |
| 2003 | 43,090 | 24,485 | 9,960 |
| 2004 | 51,564 | 28,144 | 13,770 |
| 2005 | 58,541 | 29,223 | 13,429 |
| 2006 | 62,506 | 29,799 | 13,692 |

Source: ECOTEC (2007); Statistics Finland (2008)

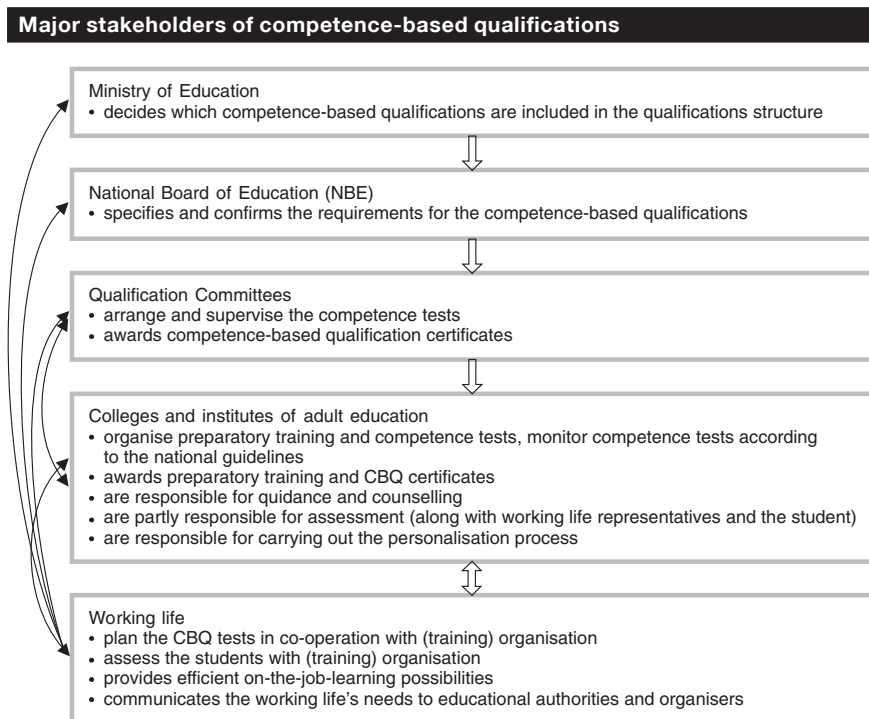
The statistics above indicate that the number of individuals taking part in the competence-based vocational qualifications has increased significantly.

The vocational qualifications framework is decided by the Finnish Ministry of Education and revised annually. Changes in working life and feedback from the representatives of labour market are taken into account in the revision of the framework. The Finnish National Board of Education sets the qualification requirements of competence-based qualifications, which describe the vocational skills required for the qualification. The qualifications requirements are developed in cooperation with teachers and representatives of working life. A Qualification Committee for each competence-based qualification is nominated by the Finnish National Board of Education. These committees have representatives of employers, employees and teachers, and if needed also, self-employed workers in the field, and they agree on the organization of the tests with providers of education and other communities. Then the quality of competence test performances is assured on a tripartite basis. The committees supervise and monitor the arrangement of competence-based qualifications and issue certificates.⁵

5 The Finnish Ministry of Education (2007); Saarinen (2007).

In Figure 1 the major stakeholders of competence-based qualifications are presented.

Figure 1



Source: adapted from EVTA (2008)

→ *Eligibility for further studies*

Since 1 August 2001, all programmes leading to initial vocational qualifications take three years to complete and comprise 120 credits. They all give general eligibility for both polytechnics and universities. As seen in Table 2, other possibilities to enter polytechnics are through completing competence-based vocational or further vocational qualifications. Specialist vocational qualification itself doesn't give eligibility for applying to higher education studies; in addition with a competence-based vocational qualification or vocational qualification, less than 3 years is needed in order to have general eligibility for higher education.

Table 2

| Eligibility for higher education on the basis of vocational qualifications | |
|---|---|
| Vocational qualification | Eligibility for further studies |
| Vocational qualification (at least 3 years) | General eligibility for higher education |
| Vocational qualification (less than 3 years) | Subject-specific eligibility for Polytechnics |
| Vocational qualification (less than 3 years) and completing the qualification to 3 years or further or specialist vocational qualification or work experience of 3 years in the field after qualification | General eligibility for Polytechnics |
| Further vocational qualification | Subject-specific eligibility for Polytechnics |
| Further vocational qualification and completing the qualification to 3 years or specialist vocational qualification or work experience of 3 years in the field after further vocational qualification | General eligibility for Polytechnics |
| Specialist vocational qualification | No eligibility for further studies |

Source: Finnish Ministry of Education (2007c)

The entry requirement is a certificate from an upper secondary school or the matriculation certificate, a vocational qualification or corresponding foreign studies. Each student has a personal study plan, which facilitates student guidance and the monitoring of progress in studies. Students apply for polytechnic studies in a national application system. The polytechnics determine the principles of student admission independently. Student admission is based on the previous study record and work experience and, in many cases, entrance examinations are also arranged. According to the legislation polytechnics can accept students whom they consider to have sufficient knowledge and skills for polytechnic studies. The eligibility must be assessed before the selection procedure. According to the Act on Polytechnic Studies (225/1995) individuals can be accepted to polytechnics if they can demonstrate that they possess the competences required to complete the course they have applied for. In higher education the emphasis has traditionally been more on accreditation of previous studies than on validation of informal and non-formal learning.

3. Aims and Data of the Finnish Case Study

The aim of this Finnish case study was to find out how the process of validation becomes evident during the studies of competence-based qualifications and when entering to higher education. The foci of this case are vocational qualification and further vocational qualifications of competence-based qualifications in Technology, especially in Construction.

The empirical data gathering method consisted of nine teacher interviews, which were carried out in Central Finland and in South-Western Finland in vocational adult institutions. Also two representatives of working life were interviewed. In addition, documents were received from same adult education colleges. The main documents were:

1) Process of individualisation

- Description of principles of competence-based qualifications
- Description of application phase
- Competence test phase
- Completing the vocational skills phase
- Documentation

2) Survey of competence

- Self-assessment forms
- Surveys of competence

3) Implementation of individualisation

- Plans for individualisation
- Personal plans for competence tests

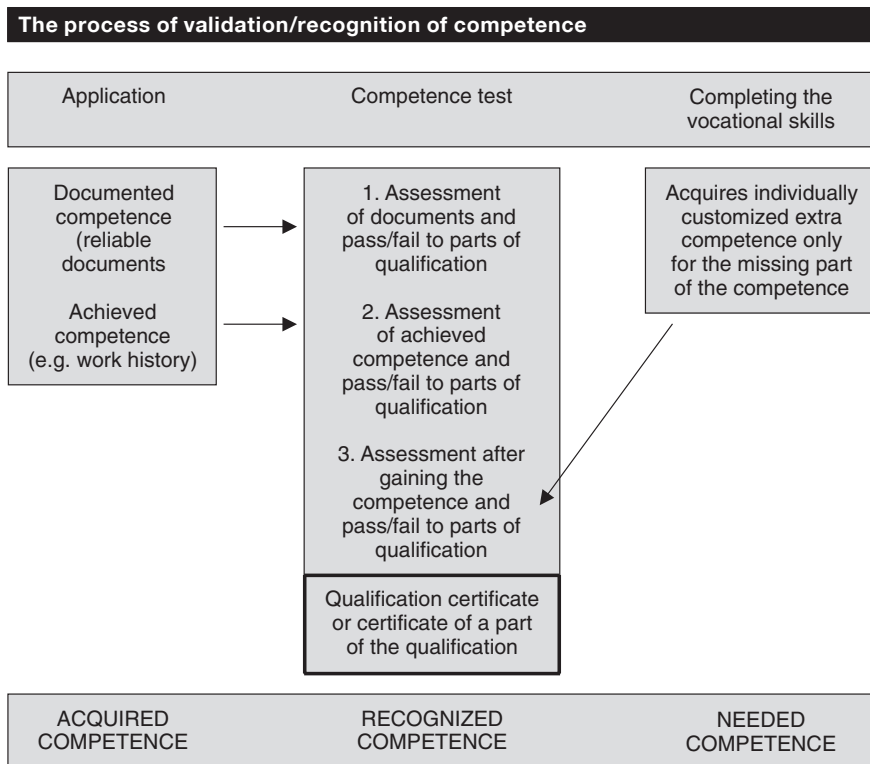
The semi-structured themed interviews were all recorded and transcriptions were done. The documents were viewed with the texts. The material was analysed by content analysis. The results of this case study dealing with individualisation are described in the following chapters.

4. Validation of Competences through Implementing Personalised Learning Pathways in Competence-based Qualifications

→ *Process of individualisation*

The regulation for individualisation by the Finnish National Board of Education (2006) guides the implementation and adaptation of the individualisation and it is binding to use the individualisation in all phases of the system of degrees: in applying to the degree, in carrying out the degree and also in attaining the needed vocational competence. The individualisation process is divided into three phases: 1) application phase, 2) competence test phase and 3) vocational skills completion phase.

Figure 2



Source: adapted from Rikkinen (2006)

Next, the results of the case study concerning the individualisation process will be presented.

→ *Application phase*

The individualisation in the application phase begins from initial guidance. It has to be ensured by the (training) organisation that each student receives adequate information on all possible options of training programmes, APL procedures and methods of training. The student has a wide variety of options and with help from the organisation's advisors and counsellors the ideal 'study path' or 'career path' is defined. The student's skills and prior learning (regardless of the method or place of acquiring them) are defined and tested, possible needs for additional training and education are identified along with possible needs for guidance and support during the entire process.⁶

The following tools are used in the application phases for recognition of prior learning:

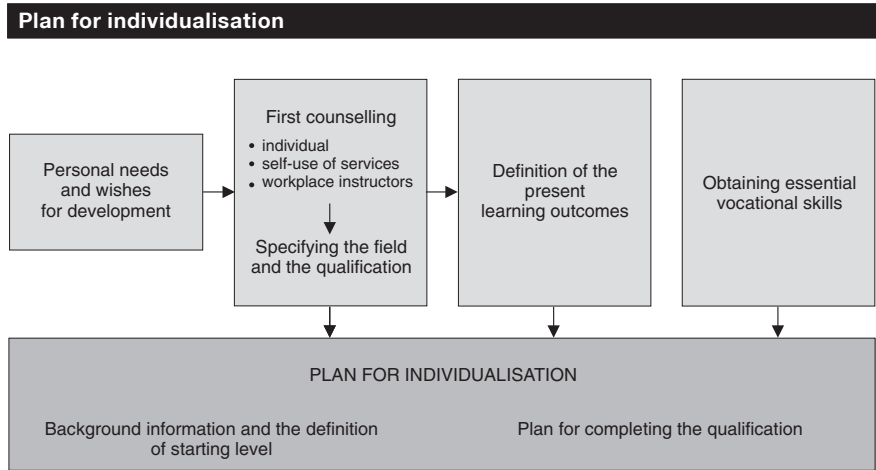
- Initial survey: (1) self-assessment (e.g. field-specific self-assessment tool osa.fi "I can") at the website of the Finnish National Board of Education and institutes' own assessment tools for adult students' vocational/professional competence); (2) individual interview (self-assessment is a base for the individual discussion); (3) observation of work tasks; (4) starting level tests (e.g. languages, mathematics, ICT; important for low achieving students to have the basic knowledge in mathematics);
- Needs for guidance and support; most is needed at the beginning of the application phase (What do I need in order to pass the qualification? How do I prepare for the competence demonstration?);
- Choice of qualification: what field, what level (initial, further or specialist vocational qualification);
- Recognition of APL, APEL.

Students' vocational competence is defined as achieved and documented competence. These competences are compared to the requirements of competence-based qualifications.

6 EVTA (2008).

The plan for individualisation is seen as a tool for guiding the implementation of individualisation. Guidance and counselling in institutions plays an important role in choosing the field and the qualification. After definition of present learning outcomes and after recognizing essential vocational skills needed for completing the qualification, the plan for individualisation can be done.

Figure 3



Source: own work

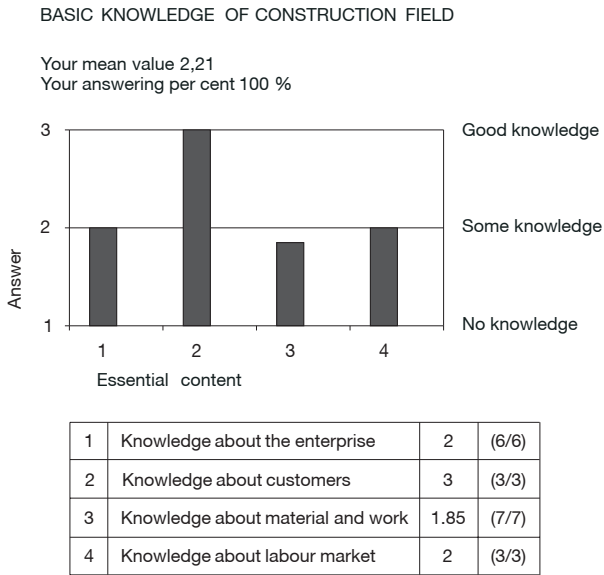
The self-assessment “Osaan.fi” (I can) is a tool to be used in student assessment in all institutions of this case study. It is designed and run by the Finnish National Board of Education⁷ and is found on the web pages of the Finnish National Board of Education. With this tool, a student can evaluate his/her own competence in some competence-based qualification. One choice is to browse the demands of skills levels or the assessment in different qualifications. Another choice is to select the evaluation of one’s own competence; the student can answer the questions of the chosen qualification and get a list of the answers and graphic descriptions of the means of demands.

In Figure 4 there is an example of an imaginary student’s answer. This kind of diagram is used when teachers have interviews and a counselling session with their students.

7 Cf. Finnish National Board of Education (2009b).

Figure 4

Example of the information of osaan.fi

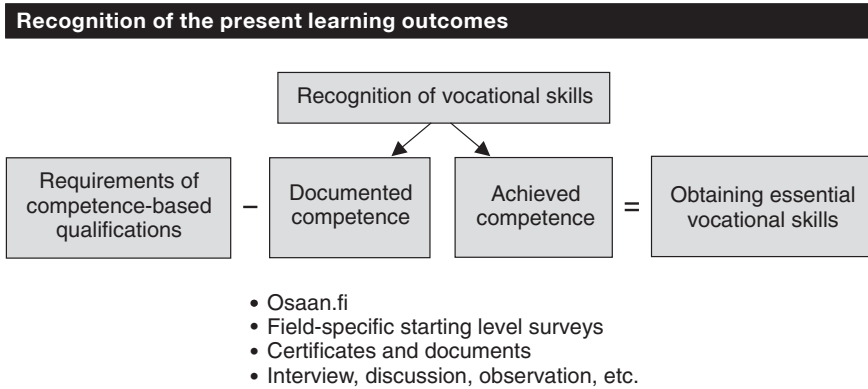


Source: own work

The first part of the report consists of the means of the test and answering per cent. In the table the information is about the part of the module Basic Knowledge of Construction Field. Information gives means of each part and the amount of questions answered. The total number of questions in this module was 19. The graphic shows more descriptively in which parts more knowledge is needed.

Educational institutions have their own reports on adult students' professional competence, but osaan.fi is used alongside with these reports. The reports support each other and give a broader view of the adult students' competences. Enterprises use a report of workers' professional competence and it is included in the agreement in work.

Figure 5



Source: own work

As seen in Figure 5, the recognition of the student's present learning outcomes is according to the following process: students vocational competence is defined as documents and as achieved competence. These competences have been compared to the requirements of competence-based qualifications. In the following, some teacher interviews and an employment manager's interview are presented to clarify the situation of recognition.

Recognition of prior learning deals with the biography of the student. In the institution the form of the plan for individualisation (see Figure 4) is in use and the form will be with the student during all of the studies. Recognition of prior learning can be already in the interview sessions during the application phase. In the form, necessary and obligatory modules of the qualification are described, as is the previous work experience. During the studies all work tasks are marked to the form even if it can not be demonstrated. The use of the form benefits both student and teacher. At the end of the studies it is easy to check the form to find out whether there are any missing parts. Before the competence demonstrations phase an extra check will be made because there is no need to demonstrate all competences as a part can be accepted on the basis of the documentation. The form finally shows whether all parts have been done for completing the qualification.

Long work experience is recognised in the way that a candidate is guided to demonstrate the qualification. But as one of the teachers interviewed said:

“those who want to demonstrate the qualification immediately are rare, because the willingness to learn new things is still prevailing.”

→ *Competence test phase*

The planning of competence tests is dependent on the results of the application phase and the requirements of the competence-based qualification. If the student provides enough evidence of his/her skills in the defining process, some or all CBQ modules may be validated without testing. If, however, the student provides no evidence, competence tests are planned to take place in a suitable working environment. The testing situations are planned in co-operation with workplace representatives and carried out to meet with the CBQ requirements. Also the cultural and linguistic backgrounds are taken into consideration when planning the tests (EVTA 2008).

At this phase an individual competence-based test plan is drafted, in which the student along with the advisor compiles a plan according to which the student will carry out the required competence tests. The plan states the method, place and time of carrying out the tests. Competence tests are carried out accordingly.

The competence test includes the following phases:

- Plan for taking examination: in which the student, along with the advisor, compiles a plan according to which the student will carry out the required competence tests. The plan states the method, place and time of carrying out the tests.
- Preparation for the competence-based qualification: (1) Learning organisations: training for competence-based qualifications is provided by adult education organisations that are responsible for defining and identifying the student’s training needs. (2) Students as learners: students familiarise with themselves as learners and with vocational fields. (3) Guidance: the counselling includes support in learning to learn, candidate’s rights and obligations, introduction to the studies and learning environments, and compilation of individual study plans. (4) Choice of the learning environments, methods: the student has a possibility to choose any number from training modules that together form a com-

plete preparatory training programme for CBQs. (5) Acquisition of vocational/professional competence in many ways: work-based learning, studying or mixed

- Competence tests (demonstrations of vocational skills): the testing situations are planned in co-operation with workplace representatives and carried out to meet with the CBQ requirements
- Recognition of competence, certificate; Guidance during competence test phase

The Qualification Committee for each competence-based qualification is organised according to the tripartite principle (i.e. it includes representatives of employees, employers and teachers and if needed also entrepreneurs).

→ *Vocational skills completion phase*

The vocational skills completion phase of the individualisation process has the following components:

- Familiarising with oneself as a learner and the vocational field
- Choice of the learning environments, methods
- Guidance
- Possible external support
- Acquisition of vocational/professional competence in many ways: work-based learning, studying or mixed

In case the student requires preparatory training in order to carry out the competence-based qualifications, the (training) organisation is responsible for defining and identifying the training needs. The organisation has to be able to provide flexibility in training options and various studying methods and learning environments for the student. The organisation has to take into account the student's life and work situation, learning needs including on-the-job-learning and prior learning, cultural and linguistic background.

The student has a possibility to choose any number from an array of training modules that together form a complete preparatory training programme for CBQs. Advisors and/or assessors provide counselling and support throughout the planning of training and the training itself. The counselling includes support

in learning to learn, candidate's rights and obligations, introduction to the studies and learning environments, compilation of individual study plans.

All institutions use an individual plan for competence tests with the following components:

- Name of the qualification;
- information about the part of the qualification to be tested: subject(s), responsible teacher in the institution, planned demonstration time, demonstration place, notes concerning the part of qualification, notes concerning demonstration;
- further information;
- signatures of the candidate, the organising party and the funding party.

In the beginning of the studies the individual plan for completing competence tests will be filled by the student. The preliminary plan with estimated timetable is marked on the form. Also the place for demonstrating the competence tests is mentioned: workplace or institution. Usually all the tests are demonstrated in workplace settings, but at least in Construction there are some exceptions: e.g. reassembling of some cradle or some similar task. But as a whole, the form is quite empty in the beginning of the studies, because in the beginning there is no information about what kind of workplaces are available in the future.

In apprenticeship training, employment managers are often with the teacher and the worker in doing the plan. In labour market training and self-motivated education the form is filled by the teacher and the student. The preliminary plan can be done after about a half a year of the contract of apprenticeship training has passed. Even then it is difficult to know exactly the dates of the demonstrations, and it depends on the construction sites. When planning the timetable, the planned time can be delayed because of the sickness of the worker or because of some other thing. It can happen that there is not anymore the possibility of the same demonstration in the worksite. In the company there is a custom to fill the skill survey of workers and that survey is needed if the worker needs to move to another worksite.

Each of above mentioned phase is recorded into a single document that can be used for follow up purposes and to maintain quality. Also quality requirements are recorded in the documentation.

Individualisation is documented in the application to competence-based qualification and preparatory education, in completing the qualification and in the acquisition of vocational competences. This document is signed by the candidate and by the person, who provides the education and/or the qualification. The third party to sign the document is the party who acquires the schooling. They all sign also in case of any changes. The realisation of the qualification is assessed during the completing and acquiring phase in a way agreed by all parties involved. It is not allowed to include any secret information according to the law of the publicity of authorities (L 621/1999).

5. Summary and Conclusion

Guidance and counselling services are needed most in the beginning, in the so-called application phase, when the choices are made. Very often qualifications consist of several optional modules and also it is demanding to select all the work tasks that make the qualification at the end. Counselling/description of contents is also need when finding out, what modules need to be demonstrated professionally in order to pass the further vocational qualification for instance. In addition, in the beginning of the process of competence-based qualifications more time is used for counselling because these studies are new to the adult student.

The counselling discussions with the previously filled information of knowledge are used both in vocational and in further vocational qualifications. Teachers stressed the importance of using the competence mapping in advance. A teacher of vocational qualifications also needs to have the previous work history of his adult students. They need to know if they have work experience or knowledge or if they know anything about the task. The counselling discussions are of great importance especially for the candidates of vocational qualifications: they are either changing to another field or are new students. They have only little experience in general. The first counselling is of great importance in finding out the way to teach them in preparatory schooling.

It is the institution's responsibility to guide the new student either to vocational qualification or to further or specialist vocational qualification. In the first counselling discussions the teacher introduces parts of qualifications and it is also important to tell students about the contents of qualification and the different levels (vocational qualification, further vocational qualification or specialist vo-

cational qualification) and to find out what would be best according to his/her professional skills. For instance, if a candidate has one year of work experience in the field, he/she cannot in any case start the studies of further vocational qualification. But, if there is work experience of several years, then the choice is further vocational qualification and the most skilled workers are guided to do the specialist vocational qualification. Finally, when the level of the qualification is found, the parts of the qualification are discussed in details. There is a lot selection and it is necessary that the teacher provides guidance to the student and discusses the possibilities available to them.

The information contained in forms also supports discussions in more details. The teacher can discuss the life situation. There is always a risk of work accidents, so extra caution is needed. These personal discussions are also for surveying the need for extra help. In cases of need, candidates are guided to do basic level surveys of reading and mathematics. "It is important for low achieving students to have the basic knowledge test in mathematics. And the feedback is essential. Together with the group, who all have done the test, we go through the basic mathematics needed in technical fields through these tasks. More than half of the students have not been able to solve these basic problems. Solving together the tasks have helped them realise that there is a need to improve the skills. It also creates a positive atmosphere to study through noticing that there are also other who don't know the basic mathematics." In some institutions all candidates do these basic tests.

In summary, in competence-based qualification an individual plan for completing tests is always completed in advance. The timetable is done, and it is taken into account that the assessment is done in phases. The validation phase is quite often very clear because if there are parts of qualification from previous study programmes, there is always a clear document to be shown. The data shows that the process of individualisation penetrates all the necessary parts of the qualification. Also according to some interviews the process of individualisation is essential for the teachers and the students to make the learning process the successful. Individualisation takes into account the needs of applicants and supports them in orientation, provides support for self-assessment and includes all kinds of counselling, guidance and supportive activities aiming at discovering the most suitable study field and career and completing the qualification of adults.

Although the individualization in competence-based qualifications works quite well, there are also challenges for the validation process:

- Supporting heterogeneous students in their learning: (1) The heterogeneous students with various needs put an extra demand on the individualisation process. (2) The heterogeneous students need multiform learning methods, learning entities (e.g. learning to learn) or adequate starting surveys (e.g. in mathematics, languages or literacy).
- Environment of the competence tests: they will be performed in work places.
- The quality of their assessment is assured on a tripartite basis (employers, employees and teachers), which should be carefully planned and realized.
- Finding suitable work places for adult students is demanding in the uncertain economic situation.
- Successful implementation of assessment requires continuous and close cooperation between educational establishments and work places, common principles of assessment and training for assessors.

6. References

Act on Polytechnic Studies 225/1995.

Act on Vocational Qualifications 306/1994.

Act on Vocational Adult Education 1998.

CEDEFOP. (2007): "European inventory on validation of informal and non-formal learning". Finland. C3342 / December 2007. ECOTEC Research & Consulting Ltd. in Manuel Souto Otero, Jo Hawley and Anne-Mari Nevala (eds). *A final report to DG Education and Culture of the European Commission. 2007 Update*. Retrieved August 20 2008 from <http://www.ecotec.com/europeaninventory/publications/inventory/EuropeanInventory.pdf>

ECOTEC (Research and consulting). (2007): *Statistics based on the Finnish national statistics office*.

EVTA (2008): *The European Vocational Training Association*. www.evta.net/III_2008/file2.doc

- The Finnish Ministry of Education (2007): *Ammatillisten tutkintojen kehittämisperiaatteet ja asema koulutusjärjestelmässä* . Reports of the Ministry of Education, Finland 2007:1.
- The Finnish National Board of Education (2006):. *Määräys henkilökohtaistamisesta* [Regulation for Individualization] 28.11.2006.
- The Finnish National Board of Education. (2007a): *Finnish Education System*. Retrieved 15 November 2007 from <http://www.oph.fi/english/page.asp?path=447,55149,4951,15059>
- The Finnish National Board of Education. (2007b): *Vocational Education and Training System in Finland*. Retrieved 15 November 2007 from <http://www.edu.fi/english/pageLast.asp?path=500,574,4951,15059,11261>
- The Finnish National Board of Education. (2007c): *Competence-Based Qualifications 1st of January 2007 (5/2007)*. Helsinki: Hakapaino.
- The Finnish National Board of Education (2009a): *Competence-based qualifications; Competence-based qualifications for adults*. Retrieved 14 January 2009 from <http://www.oph.fi/nayttotutkinnot/>
- The Finnish National Board of Education (2009b): *Competence-based Qualifications. The recognition of prior learning*. Retrieved 14 January 2009 from <http://www.osaan.fi/>
- The Finnish National Board of Education (2009c): *AiHe- Aikuisopiskelun henkilökohtaistaminen* [AiHe- project. The individualisation of Adult Learning].
- Nyyssölä, K. (2004): *Achieving the Lisbon Goal: The Contribution of Vocational Education and Training Systems. Country Report: Finland*. Retrieved 20 August 2008 from http://www.refernet.org.uk/documents/Country_Report_Finland.pdf
- Rikkinen, A. (2006): *Henkilökohtaistaminen. Aihe-aikuisopiskelun henkilökohtaistaminen. Materiaalit*. [Individualization. Material of the Aiheproject.] Retrieved 15 January 2009 from <http://www.oph.fi/page.asp?path=1,443,62622,9111,9371>
- Saarinen, M. (2007): *Finnish competence-based qualifications – a tool for the accreditation of prior learning. Memorandum*. The Finnish National Board of Education.
- Statistics Finland (2008): *Statistics of Vocational Education*. Retrieved 20 August 2008 from http://www.stat.fi/til/aop/2007/aop_2007_2008-06-16_tie_001.html

Recognition and Accreditation of Prior Learning in Higher Education – Engineering in Ireland: a Case Study

Justin Rami, John Lalor

1. Introduction

This chapter aims to outline the policies and procedures in place in vocationally related higher education programmes in Ireland in relation to the accreditation and recognition of prior and/or experiential learning both formal and informal. The umbrella of electronic engineering was used as this may provide a contextual setting, which may be transferred across the CREDIVOC partner countries. The chapter begins with an outline of the educational systems Ireland with a focus on the provision of vocational education and training in the country. The chapter goes on to examine a range of contextual issues such as the development of the national Framework of Qualifications as well as the recent changes in the economic landscape.

2. Economic Context

Ireland has moved from having the second lowest unemployment rate among the EU-15 countries two years ago to currently having the second highest rate. The rate of unemployment, which stood at 4.5% in 2007, is expected to reach 13.2% by the end of 2009, rising to a further 17% in 2010. The downturn in the economy, which commenced in the construction sector, has now spread to other sectors, principally manufacturing, hospitality and transport. Although unemployment is more common among persons with low and mid-level qualifications, a proportion of persons with third-level qualifications are also experiencing unemployment. In addition, the number of people entering apprenticeships in 2008 was 44% lower than in 2007. The sharp rise in unemployment means that there are no labour shortages in Ireland at present. This recent development has huge significance for the provision of education in the State.

3. The Irish Education System

There is no legal definition of Vocational Education and Training (VET) in Ireland. Vocational education research in Ireland focuses primarily on the education and training of young persons, aged 15 – 20, who have generally completed compulsory second level education and who have not yet significantly engaged with the labour market excluding apprenticeship.

In Ireland, VET is delivered at a number of different levels: in second-level education, in vocational training including apprenticeship, in further education and in higher education. There is some debate as to the unity of such a system, but there is clear evidence in the Irish context of a range of structures, systems and agencies that play a significant role within VET.¹ At a policy level, there exists some unity on the principles that govern vocational learning in Ireland. These principles primarily relate to issues of access at all levels, recognition of achievements, progression to higher levels, quality, relevance and partnership in delivery, the espousal of a learner orientation as central to the VET process and the promotion of lifelong learning. There also exists some agreement as to the priority areas (*ibid*). Less unity exists in terms of structures and delivery. However this chapter will seek to describe existing vocationally related structures.

In Ireland, VET embraces education and training which occurs primarily after second-level schooling and mainly in the further and continuing education sector. VET also occurs in some third level institutions. A distinctive feature of further and vocational education generally is its diversity and breadth of provision, and its linkages with other services such as employment, training, area partnership, welfare, youth, school, juvenile liaison, justice and community and voluntary sector interests. A wide range of Government Departments, statutory agencies and voluntary and community organisations provide services in this area. Vocational education and training in Ireland is not only about employability, it also embraces the key concepts of life long learning.²

Vocational education in Ireland takes place across different domains, time frames and various administrative structures.

1 McCarthy et al. (2001).

2 Government of Ireland (2000).

Second Level:

- Leaving Certificate Vocational Programme (LCVP)
- Leaving Certificate Applied (LCA)
- Leaving Certificate (established LCE³)

Vocational Training:

- Apprenticeship⁴
- Youthreach Programme

Further Education:

- Post-Leaving- Certificate courses (PLCs)
- Traineeships

Higher Education:

- Degrees⁵

4. Recent Developments in VET in Ireland

In 1999 the Qualifications (Education and Training) Act was passed. This Act led to the establishment of the National Qualifications Authority of Ireland (NQAI). The main focus of this body is the establishment of a national framework of qualifications for non-university education awards at further and higher level, taking account of education, training, social partner, voluntary organisation and learner interests. Two award councils, FETAC (Further Education and Training Awards Council) and HETAC (Higher Education & Training Awards

3 LCE is an academic, non-vocational programme. It is important to note that the majority of upper secondary school pupils choose to follow this programme.

4 Apprenticeships are organised by the National Training and Employment Authority - FÁS, in co-operation with the Department of Education and Science, employers and trades' unions.

5 Seven universities, 14 institutes of technology and other specialised institutions provide degrees and other higher education courses. The Institutes of Technology have the main responsibility for IVET at this level. Entry to courses in the Institutes of Technology is based on 'points' gained in two of the Leaving Certificate examinations – the LCVP and the Leaving Certificate (established). Appropriately qualified students from PLC programmes can also access Institute of Technology and university courses.

Council), were set up under the provisions of the afore mentioned Act. Their role in their respective areas is to determine the standards of knowledge and skill or competence to be acquired by learners for awards that they make. Programme providers represent the interface between the majority of learners and the National Framework of Qualifications initiated by NQAI and are, therefore, critical to its successful implementation. The CREDIVOC project aims to seek out innovation in accreditation instruments in the vocational sector. The NFQ in Ireland is arguably the most significant of these instruments that Ireland has to date. Various government departments are responsible for the administrative management of vocational education and training in Ireland.

→ *National Framework of Qualifications (NFQ)*

The NFQ sets the overall standards of the awards of FETAC and HETAC, as well as accommodating the awards of the universities. The Framework is the single, nationally and internationally accepted entity, through which all learning achievements may be measured and related to each other, and which defines the relationship between all education and training awards. The Framework of Qualifications comprises 10 levels, award types, level indicators (expressed as learning outcomes) and related policies on access, transfer and progression, including the Recognition of Prior Learning and Credit and is designed to facilitate the development of a credit accumulation and transfer system based on learning units.⁶

The framework is based on learning outcomes that are determined by standards of *knowledge, skill and competence*. The higher education and training awards are at levels 6 to 10. Vocational Education and Training is not explicitly described within the Framework as this can straddle Levels 5 to 8. The framework consists of major award types as set out overleaf. There are also minor and special purpose awards available at each level with supplemental awards available from Level 4.

6 FETAC (2007).

→ *ECVET Developments in Ireland*

The proposed approach to ECVET has many parallels with the Irish national approach to frameworks, qualifications, credit and vocational education and training. Ireland is one of a few countries that have a single framework of qualifications, the National Framework of Qualifications, introduced in October 2003 (*described in previous section*). The national framework is designed to facilitate the development of a credit accumulation and transfer system based on learning units. FETAC and HETAC have responsibility respectively for further education and training and higher education and training within the State. Their responsibilities include quality assurance of providers and programmes and making awards. Both Councils have similar functions with regard to their respective sectors. Higher education in Ireland fully supports the Bologna process and higher education credit operates in accordance with the European Transfer and Credit System (ECTS). The broad approach of the National Qualifications Authority of Ireland is to work towards a national approach to credit that will facilitate a seamless transfer between further education and training and higher education and training. In principle the ECVET system should facilitate mobility and transfer for workers and students throughout the EU. The individual can transfer and accumulate learning outcomes in order to obtain a qualification. To facilitate the transfer process of learning outcomes, ECVET is based on:

- The description of qualifications in terms of learning outcomes (knowledge, skill and competence)
- The expression of qualifications in units of learning outcomes, which can be transferred and accumulated.

To facilitate the understanding of qualifications and units, ECVET credit points are used as a numerical representation of each unit and to define its weight and its relative value compared to the whole qualification.⁷ FETAC generally accepted the EQF and ECVET alignment although they did have some concerns. The document stated concerns over the overlap of the EQF & ECVET.

The integration of ECTS and ECVET mechanisms has been clearly identified as an issue of concern by Irish stakeholders. Two parallel systems operating on different principles will complicate the

7 FETAC (2007).

implementation of ECVET. Coherence and mutual understanding need to be achieved between VET and higher education in order to facilitate learners moving across borders and across systems. Therefore, given the pending agreement on and introduction of the EQF, it may be opportune to commence discussions and development at a European level of a unified credit system/model (across VET and HE) to sit/link/accompany the EQF. Ireland recommends that the Commission establish a working group to look into this option. A standardised metric for the size of units as proposed needs to be determined before further progress is made on ECVET.⁸

→ *Accreditation and Recognition of Prior (Experience) Learning – AP(E)L*

In the White Paper on Adult Education: Learning for Life published in 2000, Adult Education has been defined as, ‘*systematic learning undertaken by adults who return to learning having concluded initial education or training*’. The core principles underpinning the policy outlined in the White Paper are:

- Life long learning as a systematic approach
- Equality
- Interculturalism

It is indeed appropriate that the Irish Government decided to publish a White Paper on this issue during this time. During the 1990s Ireland experienced hitherto unprecedented economic growth and far-reaching social development. This led to a greater awareness of the need to foster an educated society to ensure continued economic prosperity. Today the accreditation of prior learning is a subject of major debate across all sections of education and training in Ireland.⁹ Ireland was one of the first EU states to implement national legislation relating to the recognition of prior informal and non-formal learning. The introduction of the Qualifications (Education and Training) Act 1999 pays special attention to this in the section on access, transfer and progression (8(2)(d), P.13). The legislation was designed so that any individual has the right to apply for Recognition of Prior Learning (RPL) for the purpose of gaining an award or

⁸ FETAC (2007).

⁹ Davidson & Nevala (2007).

qualification in the National Framework of Qualifications (NFQ) or in accessing education and training programmes. This was very progressive thinking in 1999. Coughlan and Scanlon however suggest that the progress towards developing a national system has been fairly slow.¹⁰

In 2004, the NQAI put together a national advisory group to devise a set of national principles for the recognition of prior learning in further and higher education in order to strengthen the introduction of policy and procedures for RPL in Ireland. In 2005, the NQAI published the “Principles and Operational Guidelines for the Recognition of Prior Learning in Further and Higher Education and Training”. This document aimed to provide a national approach to the recognition of formal, non-formal and informal learning, which could be used by education providers, awarding bodies and private sector companies. The principles agreed upon in the policy address the issues of quality, assessment, documentation and procedures for the review of policy and practice. They aim to encourage RPL, to bring consistency to RPL in Ireland and remove difficulties that may confront an applicant wishing to transfer within and between different education and training sectors. Because of this national approach the principles and guidelines have been utilised to varying degrees in the Vocational and Higher education sectors.¹¹ The NQAI insist that a *‘national approach builds on and takes account of developments already taking place both nationally and internationally.’*¹² It also states *‘that many awarding bodies are, or have been, actively developing their own policies and practices, thus there is a need to develop a national approach to ensure coherence and widespread acceptance of the outcomes of recognition’.*¹³ The NQAI’s intention is that these principles should be built on to develop operational guidelines which could be *‘an exemplar of the nature of arrangements that further and higher education and training bodies (the Further Education and Training Awards Council, The Higher Education and Training Awards Council, the universities and the Dublin Institute of Technology) should consider putting in place’.*¹⁴

10 Cf. Coughlan & Scanlon (2007).

11 Davidson & Nevala (2007).

12 NQAI (2005), 4.

13 NQAI (2005), 4.

14 NQAI (2005), 4.

→ *The Higher Education System and AP(E)L*

HETAC, which has responsibility for the higher education system (excluding the university sector) in Ireland, describes prior experiential learning as knowledge and skills acquired through life, work experience and study, not formally attested through formal certification. In so doing however Coughlan and Scanlon suggest that it is also very clear that experience is an input and that learning outcomes are the result of a successful learning process.¹⁵ Interestingly it states categorically that academic credit can be awarded only for the achievement of learning outcomes and not simply for experience. The guiding principle underpinning the guidelines is that they are an integrated part of the Council's strategy to create a ladder of learning as indicated in the third mission 'Provide systematic progression pathways'.¹⁶ It states that the concept of AP(E)L is one which is aimed primarily at people who for one reason or another such as for example the lack of finance or other support, did not have the chance to commence or complete a third level programme. Having now amassed a significant level of life experience they could now qualify to have this experience assessed academically to gain access to or exemptions within the third level system. Learning outcomes are used where AP(E)L is related to specific modules or courses with the expectation in some cases that applicants will meet all the learning outcomes to a specified sufficiency.

In recent research conducted by Anne Murphy the findings suggested that the use of learning outcomes for AP(E)L is conceptually difficult in a higher education context where knowledge is not generally pegged to measurable occupational competence standards. It went on to say

'curriculum design, syllabus content and assessment in higher education generally operate from a different philosophy in this regard and the university preference is for assessment of experiential learning in-the-round, drawing on the teaching experience of academic staff and panels of experts closest to the field of learning in each case'.¹⁷

15 Cf. Coughlan & Scanlon (2007).

16 HETAC (2006).

17 Murphy (2004), 5.

5. Case Study – Electronic Engineering in Higher Education

→ *The University Sector and AP(E)L*

The University system has up until recent times been the slowest to act on developing instruments and policies in the area of AP(E)L. Coughlan and Scanlon suggest that this is due to the lack of institutional-wide initiatives.¹⁸ However due to the increased demands for vocationally related degrees such as Teaching and Nursing, and more so in recent years with extra resources being put into Science and Engineering, a number of recent developments are increasing pressure on the University sector to become more involved in the area of AP(E)L. Traditionally there has been a steady influx of students from the Higher Education sector to the University sector and a very well established system of AP(E)L existed to cater for these students. This interaction has diminished in recent times due to the increased authority of the HE sector to award their own degrees and post-graduate qualifications and the greater acceptance of these awards by employers.¹⁹ In recent years the applications through the CAO (Central Admissions Office) in the areas of science and engineering have been decreasing. Because of this and because of pressure from the NQAI the University sector is now under increasing stress to maintain their enrolment numbers. They have recognized that it is now imperative for systems to be put in place to allow for greater flexibility in the admissions system.

→ *Research focus*

This research looked at a range of issues connected with the aspects of AP(E)L and RPL. The study focused primarily on the bridge between vocational education in the post-primary, further education and non-formal sectors in Ireland and the higher education sector. As mentioned earlier in this chapter vocational education and training is not necessarily based on vocational to higher educational pathways. Learners often straddle several domains. FETAC & HETAC have both made awards in the engineering sector through the AP(E)L process. However our focus looked at practical issues around developing and implementing policies and procedures on the ground.

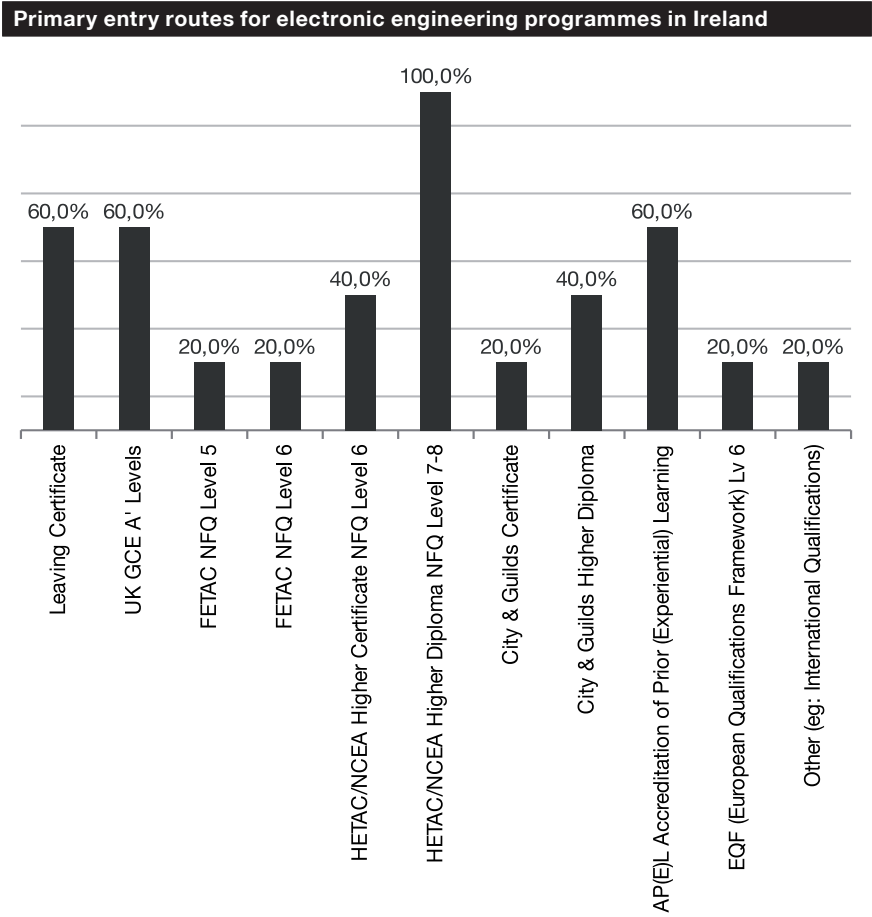
¹⁸ Cf. Coughlan & Scanlon (2007).

¹⁹ Coughlan & Scanlon (2007), 17.

→ *Entry routes*

The range of entry routes or points into the Irish NFQ Level 8 programmes in electronic engineering Ireland are very diverse. The majority of learners entering higher education come straight from post primary school through the CAO points system. However many learners in the engineering sector also come from ITs (Institutes of Technology) who often provide programmes at level 5-7. Figure 1 outlines the various possible routes into these programmes.

Figure 1



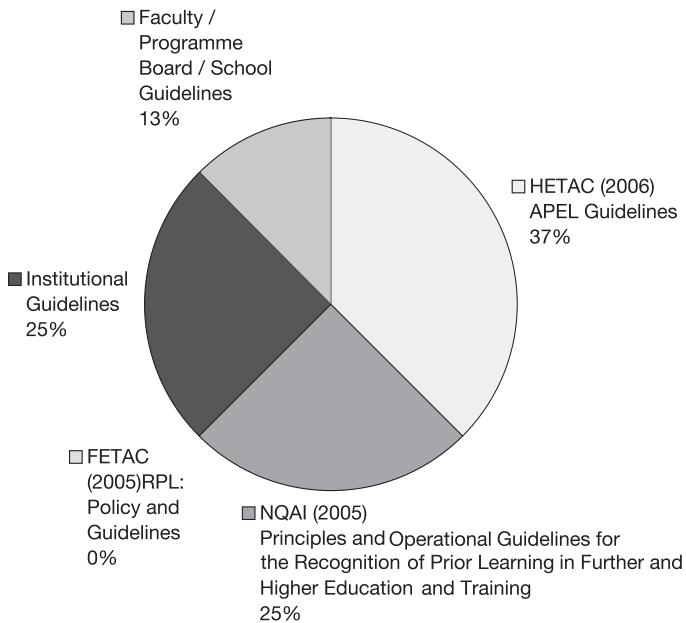
Source: own work

→ AP(E)L policy/guidelines and programme implementation

When surveyed, many of the HEI's indicated that usually the process of designing an AP(E)L/RPL policy is agreed by their Institutional Academic Councils. Figure 2 shows the diversity of agreement regarding policy guidelines. Many other HEI electronic engineering programme providers suggested that applications by prospective students that have prior experiential learning is taken into account on a case by case basis by the particular course leader or programme chair. The application is usually reviewed on both the academic and relevant work experience criterion. Figure 3 outlines that the programmes examined within this research were mainly validated by the Universities themselves or HETAC (who have responsibility of the Institutes of Technology). External validation was also an important factor, specifically to gain professional recognition and chartered status as electronic engineers from the relevant professional engineering body in Ireland.

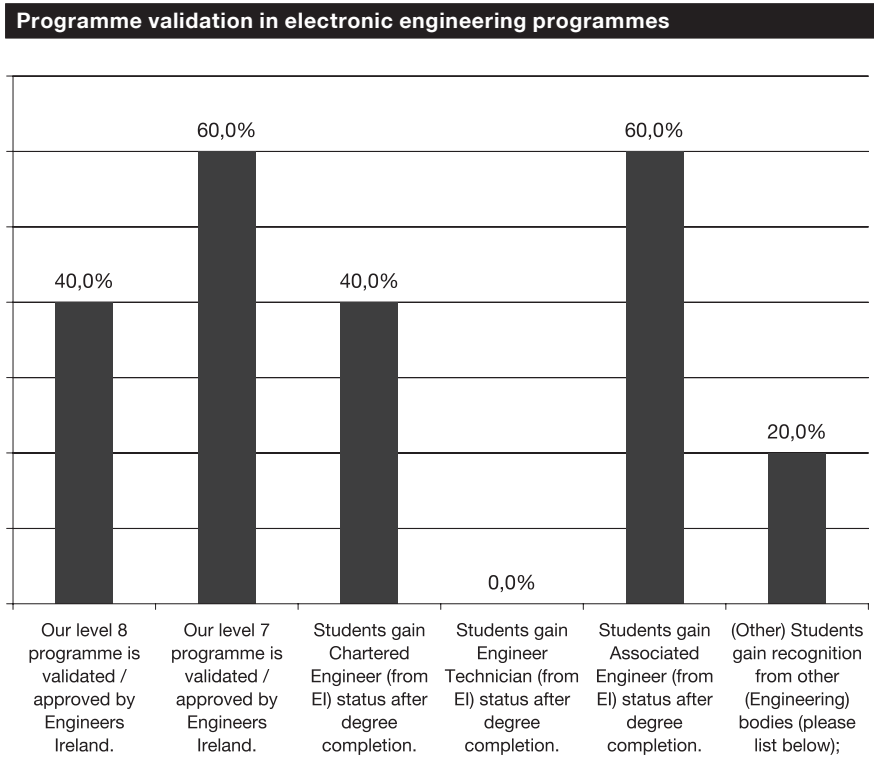
Figure 2

AP(E)L/RPL policies in place in higher education institutions in Ireland



Source: own work

Figure 3



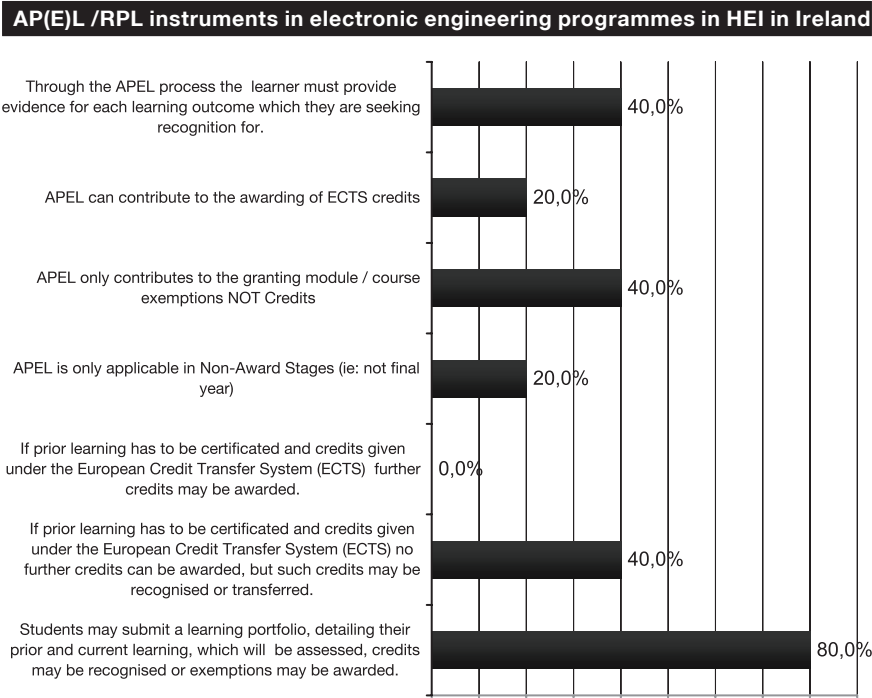
Source: own work

→ *AP(E)L/RPL instruments in higher education institutions*

The research showed that there was not a consistent approach to the use of administering AP(E)L instruments in HEIs throughout the country. When considered appropriate, the course leaders or programme managers may interview applicants and decisions on course entry may be made based on the application forms and the interviews. Other programme managers suggested that they usually conduct interviews where relevant learning outcomes might be examined and decisions would be based on an overall evaluation of any exemptions that the candidates might claim, and the applicant's ability to take all modules on the programme from which they are not exempt. Figure 4 shows the favoured and most commonly used instruments for measuring AP(E)L is the learning portfolio. However these types and depth of portfolios differed

from institution to institution. In the majority of cases APEL was seen as a tool to allow acceleration and reduction of study time but rarely was used to give formal ECTS credits in lieu of learning outcomes achieved.

Figure 4



Source: own work

→ *Blanket recognition*

Once again there were various and differing procedures in the area of blanket recognition. Some institutions exempted all FETAC Electricians from Semester 1 on block after a process of designing/aligning their content on this semester with their knowledge base. Some had also made a blanket agreement with candidates from Cavan Institute, who had taken specific FETAC modules, for exemption from Year 1.

Other HEIs were looking into this issue with a specific level 7 programme in DKIT (Dundalk Institute of Technology) with the aim of smoothing the transition of students from their Level 7 programme to their level 8 ones. They suggested that this will most likely involve exchange of course and assessment information in both directions and possibly special bridging arrangements either in DKIT or DCU or both to allow the process to operate as effectively as possible. Other HEIs said that they do not have an accelerated progression mechanism in operation.

6. Conclusion

This research demonstrated that although Ireland has clear parallel structures for recognition and progression from VET to Higher Education the practice is often very different. No one approach was referred to or advocated by the respondents during the research. This issue of quality assurance was prominent within the discussion and again although there are HETAC and FETAC guidelines about the recognition of prior and experience learning these guidelines have rarely been fully adopted by the HEIs. The nature of HETAC authority over the Institutes of Technology and the cultural legacy of Irish Universities being autonomous may be the reason for this slow and uncoordinated approach. The research showed that AP(E)L and RPL seem to be pre-determined by cultural tradition and economic circumstances and approaches connected to formal learning were sometimes linked to legislation and standing institutions. There is a growing need to develop quality indicators to support measuring the effectiveness/efficiency of AP(E)L within and without the HE and VET sectors. Generally speaking, AP(E)L is more complex than the validation process of formal learning and there are many quality assurance issues at play. FETAC and HETAC independence ensure that QA outcomes are transparent and according to common national standards, however the economic situation in Ireland has forced these two organisations to be amalgamated and become one new organisation. Developments outside of Ireland mainly in Europe will shape the future of decision making in the new EHEA. The EQF and ECVET should make it easier for the transfer of credits to other qualifications or pathways, which should facilitate learners' mobility between VET and HE. Once again this is an aspiration, the reality does not always reflect this view. If there is collaborative approach between FETAC and HE to the implementation of EQF and ECVET this could ensure consistent QA progress.

7. References

- Brinkley I & Lee N (2006): *The knowledge economy in Europe: A report prepared for the 2007 EU Spring Council*, London, The Work Foundation.
- Coughlan, D & Scanlon, G. (2007): *Ireland VPL-country report 2007 - Managing European Diversity in lifelong learning*. (VPL2) EU/Leonardo project NL/05/C/F/TH-81802
- Davidson, M. & Nevala A-M. (2007): *European inventory on validation of non-formal and informal learning IRELAND (draft) C3342 / ECOTEC Research & Consulting Ltd.*
- FETAC (2007) *Towards a European Credit System for Vocational Education and Training: Background Paper*, January 2007
- FETAC (2007): *Quality Assuring Assessment: Guidelines for Providers*
- FETAC (2005): *RPL: Policy and Guidelines (Draft)*
- FETAC (2007) *Towards a European Credit System for Vocational Education and Training: Irish Response*
- Finlay, I., Niven, S. & Young, S. (Eds) (1998): *Changing Vocational Education and Training: an international comparative perspective*. London: Routledge.
- Fox, R & Harper, D (2004): *The Vocational Education and Training System in Ireland: Short Description*, CEDEFOP
- Government of Ireland (2000): *White Paper on Adult Education – Learning for Life*, The Stationary Office, Dublin
- Heraty, N., M. Morley and A. McCarthy, (2000): *Vocational Education and Training in the Republic of Ireland: Institutional Reform and Policy Developments since the 1960s*, Journal of Vocational Education and Training, Vol. 51, No. 2, pp. 177-198
- McCarthy, O'Donnell & Garavan (2001): *Understanding the Irish VET system: beyond neoclassicism*, International Journal of Manpower Intellectual Capital Research Institute, Ballyagran, Limerick County, Ireland, Volume: 22, Number, 5, pp: 425-444
- Murphy, A (2004): *AP(E)L in Irish higher education: findings from an audit of practice undertaken as an activity within the Socrates-Grundtvig research project VaLEx Valuing Learning from Experience 2003-2005*, Dublin Institute of Technology, Ireland
- NQAI (2005): *Principles and Operational Guidelines for the Recognition of Prior Learning (RPL) in Further and Higher Education and Training*, National Qualifications Authority of Ireland, Dublin

Abstract

The improvement of education and training is a key priority within the EU's Lisbon strategy (2000), and the implementation of this goal in the domain of vocational education has been specified by the Copenhagen declaration of 2002. Its primary objectives are the establishment of a European Qualifications Framework (EQF) and a European Credit Transfer System for VET (ECVET) as well as common principles for the accreditation of non-formal and informal learning. With regard to vocational education and training this leads to the question of how vocational learning outcomes (that is, knowledge, skills and competences acquired in VET and other learning settings related to occupations and skilled work) can be accredited for higher education. The LEONARDO DA VINCI Transfer of Innovation project CREDIVOC ("Transparency and Mobility through Accreditation of Vocational Learning Outcomes") has examined the systems, strategies and instruments of accreditation in Austria, Finland, France, Germany and Ireland with the aim to identify and test innovative instruments and examples of good practice. The national in-depth case studies presented in this volume focus on selected instruments and practices of accreditation in the partner countries. These include the method of equivalence check by means of the Module Level Indicator (MLI) in Germany, the accreditation practices between VET colleges and a universities of applied science in Austria, the Validation of Acquired Experience (VAE) in France, the individualisation in Finnish adult education and the recognition and accreditation of prior learning in the engineering sector in Ireland.

Zusammenfassung

Die Verbesserung der allgemeinen und der beruflichen Bildung stellt ein Hauptanliegen der Lissabon-Strategie der EU aus dem Jahr 2000 dar. Für den Bereich der beruflichen Bildung wurde dieses Ziel durch die Kopenhagener Erklärung von 2002 konkretisiert. Diese sieht die Einführung eines Europäischen Qualifikationsrahmens (EQR) und eines Europäischen Leistungspunktesystems für die berufliche Bildung (ECVET) sowie gemeinsame Standards für die Anerkennung und Anrechnung nicht-formalen und informellen Lernens vor. Dies bringt für die berufliche Bildung die Frage mit sich, wie berufliche Lernergebnisse (d. h. Kenntnisse, Fertigkeiten und Kompetenzen, die in der Berufsbildung und anderen auf berufliche Arbeit bezogenen Lernumgebungen erworben wurden)

auf ein nachfolgendes Hochschulstudium angerechnet werden können. Das LEONARDO DA VINCI-Innovationstransferprojekt CREDIVOC („Transparency and Mobility through Accreditation of Vocational Learning Outcomes“) hat die Anrechnungssysteme, -strategien und -instrumente in Deutschland, Finnland, Frankreich, Irland und Österreich untersucht, um innovative Methoden und Beispiele guter Praxis zu identifizieren und zu erproben. Die Fallstudien in diesem Band stellen ausgewählte Anrechnungsinstrumente und Anrechnungspraktiken in den Partnerländern dar. Es handelt sich um die Methode des Äquivalenzvergleichs mit dem Module Level Indicator (MLI) in Deutschland, die Anrechnungspraxis zwischen Höheren Technischen Lehranstalten und einer Fachhochschule in Österreich, das VAE-System in Frankreich, die Individualisierung in der Erwachsenenbildung in Finnland sowie die Verfahren zur Anrechnung von Lernergebnissen in der Ingenieurausbildung in Irland.

www.credivoc.eu

The European Union supports European education and training initiatives for the 2007–2013 Lifelong Learning Programme, providing an overall budget of almost seven billion euros. With its four sub-programmes, i.e. COMENIUS (for schools), ERASMUS (for higher education), LEONARDO DA VINCI (for vocational education and training) and GRUNDTVIG (for adult education), the programme covers all educational domains and age groups.

The German Federal Ministry of Education and Research has charged the National Agency Education for Europe at the Federal Institute for Vocational Education and Training (NA at BIBB) with the responsibility for implementing the LEONARDO DA VINCI and GRUNDTVIG programmes.

The NA at BIBB publishes a series of reports titled “impuls”, a publication dedicated to presenting the findings from the LEONARDO DA VINCI and GRUNDTVIG projects, showcasing and disseminating innovations and developments within general and vocational education and training and also facilitating the comprehensive exchange of ideas and experiences.

GEFÖRDERT VOM



Bundesministerium
für Bildung
und Forschung

Project Coordinator

