

**ACCREDITATION OF PRIOR CERTIFICATED LEARNING – LEARNING PATHWAYS
FROM VOCATIONAL EDUCATION AND TRAINING TO HIGHER EDUCATION**

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Summary

To enhance individual potentials and competencies as one goal, the German Federal Ministry of Education and Research (BMBF) launched the initiative on “Accreditation of Prior Learning (APL) from Vocational Education and Training (VET) and from Work for Higher Education (HE) Programmes (ANKOM)” in September 2005. Since then, twelve pilot projects have set out to develop approaches to identify learning outcomes (such as knowledge, skills, qualifications, competence) of specific continuing vocational training certificates, which are equivalent to those of corresponding higher education courses, and thus enhance the implementation of Accreditation of Prior Certificated Learning (APCL) procedures, policies and infrastructure at Higher Education Institutions (HEI) in Germany. The initial evaluations of the pilot projects have shown that there is a common approach on developing an APCL model that includes describing learning outcomes, providing evidence of equivalence and setting up quality assured application procedures. It is already clear that this national initiative is only the beginning of Accreditation of Prior Learning (APL) which is an integral part of the Bologna process in higher education.

Key words: accreditation/recognition, prior (certificated) learning, learning outcomes, learning pathways, lifelong learning

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1. Introduction

The European Union (EU) is promoting the priority “Lifelong Learning” with the creation of the European Higher Education Area (EHEA) until 2010 (referred to as Bologna Process), and with the processes triggered off by the Copenhagen Declaration, relevant to the Vocational Education and Training Area (VETA) (Copenhagen Process). These strategies for lifelong learning have been deemed by the European Commission "as essential to promote employability, active citizenship, social inclusion and personal development" (EC 2002: 2).

Moreover, the development of highly qualified employees is also an important issue for the German Federal Ministry of Education and Research (BMBF). To enhance individual potentials and competencies, and thereby both overcome the long standing separation of vocational education and training and higher education in Germany, and support the EU priority of Lifelong Learning, in 2005, the BMBF launched the initiative "**Anrechnung beruflicher Kompetenzen auf Hochschulstudiengänge**" (ANKOM)¹, which can be translated as "Accreditation of Prior Learning (APL) from Vocational Education and Training (VET) and Work for Higher Education (HE) Programmes".

2. The German Initiative on Accreditation of Prior Certificated Learning from VET for HE Programmes

The call for tender of the ANKOM initiative was based on a programme guideline (BMBF 2005), which stipulated that the main focus shall be on the development of procedures and concepts for Accreditation of Prior Certificated Learning (APCL) stemming from nationally regulated continuing vocational training certificates (e.g. master craftsperson, qualified tradesperson, technician, business manager, nursery teacher, and health care manager).

Germany has a well developed company and vocational school based system (referred to “as dual system”) of vocational education and training in 360 state-recognized training occupations, and around 80 certificates of continuing vocational training (CVT certificates), nationally regulated by examination standards. These nation-wide recognized further training certificates are the basis for accreditation on higher education programmes.

2.1 Goals and Structure

The German Federal Ministry of Education and Research (BMBF) launched the ANKOM initiative:

- to develop accreditation of prior learning approaches,
- to identify operational good practice, and
- to enhance the implementation of accreditation of prior learning procedures, policies and infrastructure in the German higher education system.

The overall goal is to foster learning pathways from vocational education and training to higher education by reducing redundancies of learning outcomes and improve conditions for continuing, lifelong competence development.

With the national “ANKOM” initiative, the BMBF funds twelve so-called regional development projects² and a scientific monitoring project. These projects are co-financed by the

¹ See homepage under <http://ankom.his.de>

² See also the paper by one of the pilot projects (FH Bielefeld) expressing their point of view of APL in higher education in this conference.

European Social Fund (ESF). The "development projects" are scheduled for about 27 months and run until December 2007. The project for scientific monitoring and support is scheduled for 39 months and runs a year longer than the pilot projects, until December 2008.

Regional development projects

The task of the pilot projects is to develop procedures of APCL in HE. The twelve projects are carried out by seven universities and four universities of applied sciences, each of which works in cooperation with further vocational education and training providers. The work of every developing project is supported by a council of stakeholders from the different fields of vocational and higher education, e.g. representatives of companies, chamber of industry and commerce, trade union, professional association, further vocational education and training provider, further education examination board and of higher education examination board. The stakeholders of the project advisory board constitute a network which tries to bridge the different interests of the vocational education and employer field, and the higher education institutions.

The twelve project consortia of representatives of vocational training and higher education work in four fields:

- Health and social care (4 projects)
- Business sciences (4 projects)
- Information technology (2 projects) and
- Engineering (2 projects).

The developing projects with their cooperation partners are located in eight out of sixteen Federal States: Berlin (1), Bremen (cooperation partner) Hesse (1), Mecklenburg-Western Pomerania (1), Lower-Saxony (4), North Rhine-Westphalia (4), Rhineland-Palatinate (cooperation partner), and Thuringia (1). There is a regional focus in the northern Federal States of Germany ("Laender"), illustrating the different political interest in APCL, and emphasising that the competence of higher (and of general) education belongs to the responsibility of the German Federal States. Therefore interference with their responsibility by the Federal Government and its ministry of education and research through national initiatives is not appreciated by the Federal States.

Scientific monitoring and support

As mentioned above, there is also a project for scientific monitoring and support of the pilot projects funded by the BMBF. It is a joint venture by HIS - Higher Education Information Service³, Hannover, and VDI/VDE-Innovation + Technik⁴, Berlin, that also represents the two separated fields of vocational and higher education.

The tasks of the scientific monitoring and support project are:

- to provide advice and support to the development projects
- to organise workshops and meetings to enhance the sharing of knowledge and experiences between the pilot projects
- to assess the project results
- to enhance actions which lead to trust between the stakeholders, and
- to promote the APCL/APEL discourse and procedures in Germany.

³ See under: <http://www.his.de/english/organization>

⁴ It is a society of the Association of German Engineers (VDI) and of the Association for Electrical, Electronic & Information Technologies (VDE); see under: <http://www.vdivde-it.de/eng>

The major goals of the project assessment are to identify:

- generic approaches in Accreditation of Prior Learning (APL)
- operational good practice, policies and infrastructure, and
- general principles of good practice in assuring and enhancing quality standards in APL.

2.2 Approaches to Accreditation

Two approaches to accreditation of prior learning are in the centre of the developing work of the pilot projects, with a strong focus on the first.

1. The *Accreditation of Prior Certificated Learning* (APCL) assesses learning outcomes of a "course/qualification" in vocational education and training and continuing vocational training (CVT). The question is to what extent the learning outcomes (LE) of the CVT certificates/qualifications are equivalent to the required learning outcomes, competency outcomes or standards in qualification of a specific course or study programme in higher education. The main characteristic is that the course or certified qualification is assessed for equivalence, not the student. APCL can be described as a process, through which previously assessed and certificated learning is considered and, as appropriate, recognised for academic purposes (University of Ulster 2006:7, QAA 2004:17).

2. The *Accreditation of Prior Experiential Learning* (APEL) involves a case-by-case assessment of the individual's knowledge, skills and competencies which may be derived from a whole range of learning experiences, including workplace learning, life experience, and family and voluntary work or caring for children and the elderly. The main characteristic is that APEL assesses the individual's competencies. APEL can be described as a process, through which learning achieved outside education or training systems is assessed and, as appropriate, recognised for academic purposes. In other words, the individual's competencies are given recognition and academic value (Garnett et al 2004:4).

2.3 First Results of the ANKOM Initiative

Preliminary results gained by the evaluation of the developmental work of the pilot projects over the last 18 months, refer to three different levels:

- project and programme level
- education system level and
- research level.

2.3.1 Results at Project and Programme Level

The initial evaluations of the twelve pilot projects have shown that the development projects have been focussing in their work on the following three steps to create a model of APCL:

- describe learning outcomes in form of knowledge, skills, qualifications or competencies in both further vocational and higher education
- find out which learning outcomes described by a specific certificate of continuing vocational training are equivalent to those of a corresponding higher education programme, and
- develop procedures to implement accreditation of prior certificated learning at the Higher Education Institution (HEI).

Regarding the results of evaluating the work of the pilot projects, there is a model of three vital steps concerning APCL to be found with every pilot project which also seems to be the case at programme level.

The model of setting up APCL comprehends the following three main aspects:

- describe learning outcomes (LO) of VET and HE in a common framework (see A in the chart below),
- identify equivalences by a set of criteria and rules (see B in the chart below) and
- set up implementation procedures of APCL at the HEI, ruled by quality standards (see C in the chart below).

After having created the model of APCL and when reflecting the developing process, it was realised that in order to apply APCL sustainably, it also had to be considered which steps to take to implement the APCL concept effectively, and to add them to the concept (implementation process of the three aspects) to be able to support the introduction of APCL in German higher education institutions properly.

Steps to take	A Describe learning outcomes	B Determine equivalent learning outcomes	C Set up accreditation procedures at HEI
Concept	Describe learning outcomes (e.g. knowledge, skills, qualifications, competencies) in both fields of VET and HE (and informal /non-formal LO, e.g. from work experience, voluntary work)	Develop an instrument (methodology) to determine equivalent LO of VET certificate and HE programme (and from non-formal / informal learning)	Develop a concept regarding the procedure to be set up to implement accreditation at the HEI (proof of practicality)
Implementation process	Which steps have to be taken to carry out the tripartite concept in practice?		

Table: Concept to apply APCL at HEI in Germany

2.3.1.1 Describe learning outcomes

In order to compare learning outcomes acquired by the respective certificates and degrees in continuing vocational training and higher education, the types of learning outcomes were analysed and described, as laid down in different documents, such as standardized requirements and examination standards of the CVT certificates and course catalogue of study programmes. It was found out that the descriptions of learning outcomes from these documents were not comparable, and that therefore there needed to be a common reference like the various taxonomies of educational objectives by Bloom (1956) or Anderson/Krathwohl (2001) or Dreyfus/Dreyfus (1986) or by the German Association of the Chambers of Industry and Commerce (DIHK 1998, 2005) or (the draft of) the European Qualifications Framework (EQF) (EC 2006) with its set of descriptors for types of learning outcomes (knowledge, skills and competence) and their respective levels. On the basis of the first draft of the EQF, the German association of the faculties of social work of the universities of applied sciences has developed a qualifications framework for social work (Bartosch 2006), which has also been used as a reference tool to describe learning outcomes by a problem solving approach.

2.3.1.2 Determine equivalent learning outcomes

By analysing learning outcomes from different educational areas, but described by a common taxonomy, it was possible to identify equivalences. These equivalent learning outcomes can be regarded as the interfaces of vocational and higher education. It was the task of the pilot

projects to set up criteria and rules in order to come to a transparent decision whether the learning outcomes are equivalent or not. These are necessary requirements for a quality assured judgement. This decision is generally to be taken by the person responsible for the course module at the higher education institution. The developed set of criteria consists of items which derive from various (official) sources such as the descriptors of the EQF, or the German qualifications framework for higher education (KMK 2005), and from interviews with experts from vocational training and higher education. These items help to assess whether the corresponding learning outcomes are equivalent regarding content and level. The established rules for decision making (assessment criteria) lay down which items must be met to which extent so that it can be decided that a learning outcome of the vocational training can be regarded equivalent to the one delivered by the course module.

2.3.1.3 Set up accreditation procedures at HEI

The third aspect of the APCL model is less elaborated due to the state of the project. At present only the outlines of accreditation application procedures to be set up at the higher education institution can be stated. It appears likely that there will be three types of accreditation procedures to become implemented:

- accreditation at certificate level (for formal learning outcomes)
- accreditation at individual level (for informal and non-formal learning outcomes) and
- a combination of both levels.

Each accreditation procedure has to meet certain quality criteria set up by the scientific monitoring and support group, such as:

- traceability of the accreditation procedure and of assessment criteria, including descriptors and levels of learning outcomes, for all groups involved
- convenience of application
- sustainability of the accreditation procedure, meaning the procedure will still be valid despite curricula modifications; and
- transferability of the tools of the accreditation model to other HEIs.

Accreditation at certificate level means that specific learning outcomes of a specific state-wide recognized continuing vocational training certificate that have been assessed, regarded as equivalent and previously documented by that particular higher education institution will be accredited to every holder of this further vocational training certificate for a corresponding study programme of this particular HEI. This accreditation will be confined to this HEI, as so far it is up to every HEI to accredit prior learning according to their own standards. Maybe when APCL is more common in Germany, there might be a general agreement on it among the HEIs.

Accreditation at individual level means recognising informal and non-formal learning outcomes of an individual person that have been acquired outside formal learning and relevant to a specific course or study programme in higher education. There are different means and ways to assess these individual learning outcomes, like compiling a portfolio, doing an assignment, sitting a written or oral exam. How individual accreditation is done, must also be agreed upon and made transparent. This recognition cannot probably be transferred to or will be accepted by another HEI for the same autonomy reason as for transferring APCL from one university to another.

A combination of accreditation at certificate and at individual level takes into account that you will have to apply both ways in order to do justice to (recognition of) all one's prior

learning. It depends on the individual case to what extent each part is applied. As stated previously this procedure must be made clear to all parties involved at the different stages.

2.3.1.4 APCL Implementation Process: necessary conditions of employment

Having designed the concept of APCL, there is still a crucial point to be considered and done, in order to put it into practice. As each step of the APCL model involves different groups of the higher education institution (e. g. teaching staff, board of examiners, management etc.), it is necessary to ensure that all relevant departments and persons responsible for assessing and accrediting prior learning are included right from the beginning when thinking of introducing APCL. This is vital for its acceptance and sustainability, besides further trust building measures which have to be carried out, such as information for and communication with the people applying APCL as well as providing infrastructure for guidance and support of staff/students interested in using it. As the notion of APCL is not something in the way of the German higher education, there is a lot of work regarding promoting and informing about APL to do.

2.3.2 Results at Educational System Level

The notion of accreditation of prior (certificated) learning triggers off some movement within the German education system, which is characterised by its separate areas like general, vocational and higher education with little exchange between them, and by its responsibility split up between the Federal States and the Federal Government. Among the strategies for lifelong learning there is a demand for more permeability between the vocational and higher education to which AP(C)L can make a substantial contribution. The Federal initiative ANKOM is a means to get to know each other and receive a better understanding of what the strengths and weaknesses of the respective educational areas are. It leads to cooperation and coordination of learning provisions of the different providers to the benefit of traditional and non-traditional students. It helps to remove mental barriers and prejudices fostered on both sides and opens up new perspectives on the relationship of vocational and higher education. From the learner's point of view it reduces redundancies of time and money and enhances the compatibility of work (family life) and lifelong learning. Better cooperation and tuning between vocational and higher education provides the enterprises with a well qualified work force which is most needed in a knowledge-based economy.

2.3.3 Results at Research Level

First of all, the APCL models by the ANKOM pilot projects will have to be evaluated after a certain time of practice in order to make a better version of the prototypes and be able to promote them for imitation.

Working on how to apply AP(C)L in Germany has shown that more research is needed to make it work in practice. The notion of learning outcomes is hard to come to terms with as it is much more difficult to give information on what a learner can do when the course is completed than to tell what learning input to give. Therefore research is needed into what learning outcomes (e. g. knowledge, skills, qualifications, competence) are all about and how they are described and acquired in vocational and higher education⁵.

⁵ See for further information on this subject, the priority programme on "competence models to measure individual learning outcomes and to balance learning processes" by the German Research Foundation (DFG) under: http://www.kompetenzdiagnostik.de/index.php?option=com_content&task=category§ionid=5&id=20&Itemid=52

Qualification frameworks like the draft of the European Qualifications Framework (EC 2006) can be of good help in coming to a common understanding of what is meant by learning outcomes in the different sections of education and training. This is further supported by national qualifications frameworks⁶ which are supposed to describe learning outcomes no matter where and when acquired. Both devices have to be put into practice which then again needs to be evaluated and revised in order to meet their function.

Applying AP(C)L is not really the adequate means to tune vocational and higher education with each other. To do this it is necessary to engage in this field of research more properly.

3. Conclusion and Challenges

“ANKOM” stands for inclusion of all learning and for a means to bridge the gap between vocational and higher education in Germany. Nevertheless there is a lot to do regarding the resistance towards, as well as the lack of facilities for and of know-how of APCL in higher and vocational education. We have reached the stage of creating a model that now has to be put to test. Evaluation of the APCL models over time will prove where they have to be re-designed and improved in order to boost accreditation of prior learning in higher education in Germany.

The challenges of AP(C)L lying ahead concern different aspects of implementation and accompanying measures such as the following:

- create more openness amongst the teaching staff in higher education to get a better understanding of vocational education and training and for AP(C)L
- integrate recognition of prior learning in the Bologna process as postulated in its official documents⁷
- describe learning outcomes (in both educational sections), no matter where acquired and
- design learning outcome oriented course descriptions and examination regulations which are a prerequisite for AP(C)L and
- indicate interfaces between vocational and higher education at programme and system level.

This list of challenges makes it clear that there is a long way to go to make AP(C)L happen in Germany.

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⁶ The Qualifications Framework for Germany (NQF) is being developed at the moment. Research and development being undertaken in this connection aim for a national qualifications framework that covers all fields of education and can interface with other systems or frameworks in Europe. See for further information under: <http://www.bibb.de/en/25722.htm>

⁷ For the different declarations of the ministers responsible for higher education in the participating countries of the Bologna Process see under: <http://www.dfes.gov.uk/bologna/index.cfm?fuseaction=docs.list&DocCategoryID=16>

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