Bundesministerium
für Bildung
und Forschung

Status of Recognition of non-formal and informal learning in Germany

within the framework of the OECD activity "Recognition of non-formal and informal Learning"

Imprint

Published by
The Federal Ministry of Education and Research
Bundesministerium für Bildung und Forschung (BMBF)
Referat EU Bildungsprogramme; internationale
Zusammenarbeit in der Bildung
53170 Bonn

Orders should be sent in writing to the publisher
Postfach 30 02 35
53182 Bonn
or placed by
Tel.: 01805 – 262 302
Fax: 01805 – 262 303
(0.12 Euros/Min. from a German landline)

Authors
Sabine Seidel, ies
Markus Bretschneider, BiBB
Thomas Kimmig, DIPF
Harry Neß, DIPF
Dorothee Noeres, ies

with the collaboration of
John Erpenbeck, CeKom
Katrin Gutschow, BiBB

E-Mail: books@bmbf.bund.de
Internet: http://www.bmbf.de

Bonn, Berlin 2008

Bundesministerium
für Bildung
und Forschung

Status of Recognition of non-formal and informal learning in Germany

within the framework of the OECD activity "Recognition of non-formal and informal Learning"

Contents

Introduction

Objectives of the OECD activity

The country background report for the Federal Republic of Germany is part of an OECD activity to recognise non-formal and informal learning with the central approach of making lifelong learning for all a social reality. The goal of the OECD programme is to create transparency, to clarify the conditions under which the recognition of non-formal and informal learning for all can generate added value for all, and to provide policy-makers with options for developing systems to recognise non-formal and informal learning. To this end, the project aims to take stock of and obtain information on which groups in society benefit from the recognition of non-formal and informal learning and which are excluded, which of the existing systems work and which do not, and finally to explore effective, beneficial and equitable models.

The German involvement in the OECD activity is intended to create a systematic overview of the various options for recognition in Germany. On this basis it is intended to exchange experience with other countries and to learn from one another. The OECD activity supplements the international comparative studies such as PISA and IGLU that focus on learning outcomes from the formal education system, as well as other thematic country reports including the Thematic Review on Adult Learning with particular focus on low-skilled workers, and the development and analysis of internationally comparable, quantitative indicators to illustrate the take-up levels of education.[1]

Definition of terms

A pre-requisite for a comparative illustration of the recognition of non-formal and formal learning is the broadest possible consensus on the objects of the comparison. The English term "recognition" encompasses on the one hand visualisation, as a pre-requisite for recognition, and on the other appreciation and entitlement. Particularly for countries with a highly formalised vocational training system such as Germany, recognition in the sense of entitlement means that it is associated with admission requirements, an external examination and the award of a certificate.

The OECD's definition[2] of "recognition of learning" takes account of the different education systems in the participating countries in that, instead of formal certification, it emphasises the possibility of combining and further developing learning outcomes and their appreciation. This definition correlates with the various forms of recognition included in the study: formal recognition, established at political level and accompanied by entitlement to enter the education system and labour market, and social recognition in which competences receive appreciation – largely below political level – by industry or society.

The terms "formal", "non-formal" and "informal" serve the systematisation and description of the multifaceted learning processes that may occur consciously or by chance in various contexts and be organised in very different ways; their use however is still not uniform. The terms have been discussed extensively, including in the feasibility study prepared as part of the "Lifelong learning passport with certification of informal learning"

1 OECD (2006): Education at a glance. OECD Indicators 2006, Bielefeld.

2 "Recognition of learning is the process of recording of achievements of individuals arising from any kind of learning in any environment; the process aims to make visible an individual's knowledge and skills so that they can combine and build on learning achieved and be rewarded for it." OECD (publ.) (2005): The Role of National Qualifications Systems in Promoting Lifelong Learning. Report from Thematic Group 2: Standards and quality assurance in qualifications with special reference to the recognition of non-formal and informal Learning, Paris.

project[3], but this refers only to a few fuzzy areas of relevance to the OECD activity.

Corresponding to the definition generally used in the Memorandum on Lifelong Learning from the Commission of the European Communities we have:

- formal learning takes places in "education and training establishments and leads to recognised certificates and qualifications" and
- non-formal learning takes place "outside the main systems of general and vocational education and does not necessarily lead to the award of a formal certificate. Non-formal learning can take place in the workplace and as part of activities by organisations and groupings in civil society (such as youth organisations, trade unions and political parties). It can also be provided through organisations or services that have been set up to complement formal systems (such as arts, music and sports classes or private tutoring to prepare for examinations)".
- Informal learning, on the other hand, is the "natural accompaniment to everyday life. Unlike formal and non-formal learning, informal learning is not necessarily intentional learning, and so may well not be recognised even by individuals themselves as contributing to their knowledge and skills"[4]

The definition used by the OECD in the guidelines for this activity defines different boundaries:

- "'Formal learning' refers to learning through a programme of instruction in an educational institution, adult training centre or in the workplace, which is generally recognised in a qualification or a certificate.
- 'Non-formal learning' refers to learning through a programme but is not usually evaluated and does not lead to a certification.
- 'Informal learning' refers to learning resulting from daily work-related, family or leisure activities."[5]

The main criterion that differentiates formal learning from the other two forms of learning for the OECD is the qualification and certification of learning. This means that CET resulting in a recognised certificate counts as formal learning. Non-formal learning also takes place in organised contexts but is generally not subject to evaluation or certification – and hence does not lead to an entitlement. The OECD's definition of informal learning primarily targets unintentional learning processes on the job, in the family or during leisure time.

For the Commission of the European Communities on the other hand formal and non-formal learning are unequivocally intentional, informal learning is "not necessarily" so. Informal learning thus takes place in all life contexts, it may be intentional and directed but also, as in most cases, be done quite incidentally. It does not usually lead to any certification. Non-formal learning processes on the other hand under the EU's definition take place outside the main systems of general and vocational education and may, but do not have to, lead to formal certificates.

This comparison makes it clear that the EU's definitions are much closer to the widespread understanding in Germany than those of the OECD. For example, they equate CET – as is usual in Germany – with non-formal education. The relatively broadly-formulated German Education Council definition, under which CET is defined as the continuation or resumption of organised learning after completion of an initial training phase of varying durations, still applies in Germany.[6] According to this understanding, the advanced further training to master craftsman, for example, and retraining count as CET. According to the OECD definition, however, CET leading to a certificate must be as-

3 Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2004a): Weiterbildungspass mit Zertifizierung informellen Lernens. Machbarkeitsstudie im Rahmen des BLK-Verbundprojektes, Berlin.

4 Commission of the European Communities (2000): Memorandum on Lifelong Learning, SEC(2000) 1832, Brussels, p. 9 et seq.

5 OECD (2006): New OECD Activity on Recognition of non-formal and informal Learning. Guidelines for Country Participation, p. 4.

6 See Deutscher Bildungsrat (Hrsg.) (1970): Empfehlungen der Bildungskommission. Strukturplan für das Bildungswesen, Stuttgart, p. 197.

signed to formal learning – and therefore would not be a subject for the study presented here. However, in order to gain as comprehensive a picture as possible from a national perspective and to depict the spectrum of procedures associated with recognition, CET leading to a certificate will be included and highlighted as such in this study, which also forms the basis for a comparison with other countries. This also applies in light of the fact that, when representing the German understanding of formal learning, this form of CET would not be included and hence would remain excluded from any international comparisons.

Recognition of non-formal and informal learning

The recognition of non-formal and informal learning in Germany is different from in most European and non-European OECD countries[7]. Whilst it is frequently associated with an entitlement and hence "true" recognition in those countries, so can be expected to be correspondingly widespread, in Germany developments to date have been below political level.[8] Developments have mostly been geared to acknowledgement of non-formal and informal learning and to its evaluation – as an essential pre-requisite for recognition. Existing approaches at political level have a comparatively narrow scope. There are a series of approaches in Germany that address recognition or partial recognition of informally and non-formally acquired competences. Research for this study showed, however, that the information and data situation on this is very limited and has not been prepared scientifically. The approaches themselves are frequently insufficiently well-known and for this reason alone are relatively little used. At the same time, the research indicates the opportunities and potential for recognition which have not so far been implemented to any great extent in a targeted manner. The complex education system with many responsibilities and legal regulations contributes to a lack of clarity for individuals while making the development of further recognition procedures more difficult. A common statement of purpose by the various responsible parties is required to enable a broad culture of recognition in Germany.

Aims of recognition

The promotion of lifelong learning is seen as a central response to current education-policy issues in Germany. It is as much about enabling people to shape their own lives and initiating social participation as strengthening the economic area and improving equal opportunities and dealing with demographic change. The concept of lifelong learning is accompanied by a change in perspective: it places the focus back on the individual and his or her personal learning – regardless of the form this learning takes – and also on the individual's responsibility for dealing with everyday life and obtaining and developing his or her own employability.

Education and learning represent important pre-requisites for dealing with individual and social problems; accordingly, education policy aims to encourage increased participation and a general rise in the educational level in Germany. This requires new ways of gaining admission to education and learning and means that existing barriers between educational sectors have to be demolished. Hidden potential should be identified, made usable, and tied in with previous learning in order to reduce learning times so that transfer between educational pathways improves and closed doors are opened. This comes down to providing procedures and models for the recognition of learning outcomes that motivate and make possible further learning, encouraging people to participate in new learning and vocational pathways by showing appreciation for what has already been learned. To this extent, the recognition of non-formal and informal learning focuses strongly on increasing participation in education and – consequently – also on the labour force.

The potential benefits of the recognition of competences acquired in non-formal and informal ways show themselves in areas of activity

7 See Käpplinger, Bernd (2002): Anerkennung von Kompetenzen: Definitionen, Kontexte und Praxiserfahrungen in Europa, Bonn http://www.die-bonn.de/esprid/dokumente/doc-2002/kaepplinger02_01.pdf.

8 See BMBF (Hrsg.) (2004a).

that have high priority with respect to education policy, such as:

- the integration of low-skilled workers in the labour market: the identification and recognition of competences acquired in different ways are pre-requisites for well-matched qualifications They enable entry to working life and permanent integration into the labour force – even for people with poor employment opportunities such as low-skilled workers, and also for migrants.

- the increase in occupational mobility: recognition supports occupational mobility by means of opportunities for lateral entrants, thereby contributing to job security and the appropriate awarding of jobs

- the raising of the number of people entitled to study The experiences of Länder with sophisticated opportunities for entering higher education for people with work experience show an increase in numbers of people studying as a result of the recognition of learning outcomes from other contexts.

Classification of Recognition

An essential cause of the comparatively low significance of formal recognition of informally and non-formally acquired competences appears to be rooted in the German system of vocational training and CET itself, which is largely integrated with the employment system and provides for progressive vocational development. On the other hand, because of the high practical element great significance is attached to experiential learning, especially in dual training. This makes Germany one of the European countries whose education system includes as a traditional component learning on the job.[9]

The changing demographic structure, the rapidly changing demands on employees and the departure from normal employment history, however, mean that this system is no longer implemented consistently in Germany and necessitates the recognition of competences acquired in other than formal contexts. To date, the highly formalised vocational training concept in Germany has meant that recognition in the sense of entitlement is associated with admission requirements of a formal education system, an external examination and the award of a certificate. The 'qualification-oriented' and 'career-related' characteristics of the German system do not consistently find equivalence in company practice. Even if certificates still play an important part in personnel selection in companies, vocational and non-vocational experiences are also frequently relevant to their evaluations.

A central system for recognition of non-formally and informally acquired competences, based on a uniform legislative arrangement and also established consistently at political level, does not exist in Germany. Rather there is a series of parallel procedures, anchored in law and associated with formal recognition or admission or entitlement, which are subject to different responsibilities. Furthermore there is a series of activities and programmes initiated under educational policy to promote lifelong learning that in both theory and practice approach and prepare for recognition of non-formal and informal learning. In addition to these procedures in the education system and in the labour market and programmes initiated under education policy, there are arrangements under collectively agreed settlements and company procedures that are applied in the labour market but are not associated with admission into the education system and formal recognition.

Concept of the study

The OECD's intention is to obtain comprehensive comparable reports on the status of the recognition of non-formal and informal learning from the participating countries, taking account of the respective framework, and from which examples of good practice can be derived. In order to satisfy on the one hand these requirements of comparability as far as possible and at the same time to explain and classify the German system with its procedures and approaches, the main part of the

9 See Hippach-Schneider, Ute; Krause, Martina; Woll, Christian (2007): Berufsbildung in Deutschland. Kurzbeschreibung, publ. by Bousquet, Sylvie, Cedefop Panorama series 136, Luxembourg.

study is divided into two sections, deviating from the OECD specifications.

"Part A: Recognition Procedures" gives an overview and an in-depth description of the procedures and approaches themselves, their various legitimations, frameworks and goals and their usage. As there is no system of recognition with the corresponding jurisdiction and uniformity of regulation in Germany, but instead a wide variety of approaches, this section provides a systematic summary of existing recognition procedures and an insight into the education-policy initiatives and activities geared towards acknowledgement and recognition of competences acquired in different ways. To explain the background, structures and responsibility in the German education system will be described briefly as an introduction insofar as they are relevant to understanding. Therefore Part A constitutes a stand-alone supplement to the OECD system.

"Part B: OECD Components" is geared to the OECD guidelines which provide for five thematic blocks with a dedicated questionnaire for the description of the country-specific situation. This structure is followed as far as possible, any truncations are generally due to the data situation. Additions will be included with a view to the basic questions of the project. The framework and procedures described in part A will be used as explanations at appropriate points.

The country study provides a wide variety of information and assessments on the subject of recognition of non-formal and informal learning, from which conclusions and future areas of activity can then be derived and justified.

The Annex 1 recommended by the OECD with concrete tables on participation in recognition processes, intended to form another basis, backed by quantitative data, for the comparative country analysis, cannot be completed for Germany at present owing to a lack of empirical data, which is currently only fragmentary. One important reason lies in the different legislative backgrounds and the respective statistical traditions, which give rise to a considerable level of variance in survey data. The requested data is not generally collected and if it is, in light of the comparable characteristics and significance, it is useful only to a very limited extent.

A Recognition Procedures

As explained in the introduction, in Germany there are a wide variety of procedures and approaches to the recognition of non-formal and informal learning having different goals and responsibilities, rather than one standardised system. To illustrate the variety, and for the sake of clarity, these procedures will precede the OECD guidelines in this section and their aims, legal bases, characteristics and usage, if any, will be explained

The OECD definition of "recognition of learning" emphasises the ability to combine and further develop learning outcomes and their acknowledgement.[10] The definition is not restricted to formal certification but emphasises the appreciation of different types of learning outcome, for example by means of access options to continuing education, within an educational pathway or between educational pathways, through facilitated access to the employment system or reduced learning times. In Germany a distinction can be made between different forms of recognition, each having a different scope.

Formal recognition is regulated at the political level and goes hand-in-hand with entitlements for access to education and within the education system. This is generally defined via educational pathways and content, examinations and certificates and usually receives corresponding appreciation in the labour market, with some already having a long tradition in Germany.

Furthermore, there is a series of education policy-initiated steps and programmes with the goal of increasing transfer opportunities and the integration of educational pathways, acknowledgement and visualisation of non-formal and informal learning and the evaluation of learning outcomes. These steps, which are predominantly below political level, are contributing to a change in perspective on the acquisition of competences through one's life and hence are strengthening the culture of recognition of learning achievements in Germany.

Arrangements made under a collectively agreed settlement and company-based procedures such as employer's references, staff appraisals and assessment procedures have little significance in the education system but great impact in the labour market and within companies. Company practice shows that certificates alone are not meaningful in personnel selection and staff deployment and qualification profiles may often be completely at odds. Whilst it is possible to talk about formal recognition with the former process, the other two groups relate to appreciation by industry and society and hence social recognition.

The structure of this section is geared to the three forms of recognition described. After a digression on background information on the German education system, section A.1 contains the procedures that – even today – are coupled to recognition in the form of the entitlement to access further education or to enter into employment. Section A.2 shows the spectrum of education-policy initiatives and steps as an essential pre-requisite for recognition, and section A.3 concentrates on procedures used in companies.

The German education system

Basic structure

The Federal Republic of Germany is a federal state. The primary responsibility for legislation and administration in the areas of education, science and culture, the "independence in cultural and educational matters" lies with the Länder. Insofar as the Basic Law does not grant the Federal Government legislative authority, the Länder are entitled to enact legislation that, in education, encompasses schools, higher education, adult education and parts of CET. Above all, collaboration in the Standing Conference of Ministers of Education and Cultural Affairs (KMK) is crucial for comparable development of education in the Länder.

10 See also Introduction and OECD (publ.) (2005).

The Federal Government is responsible for arrangements in the following areas, whereas legislation and financial competence vary in part:

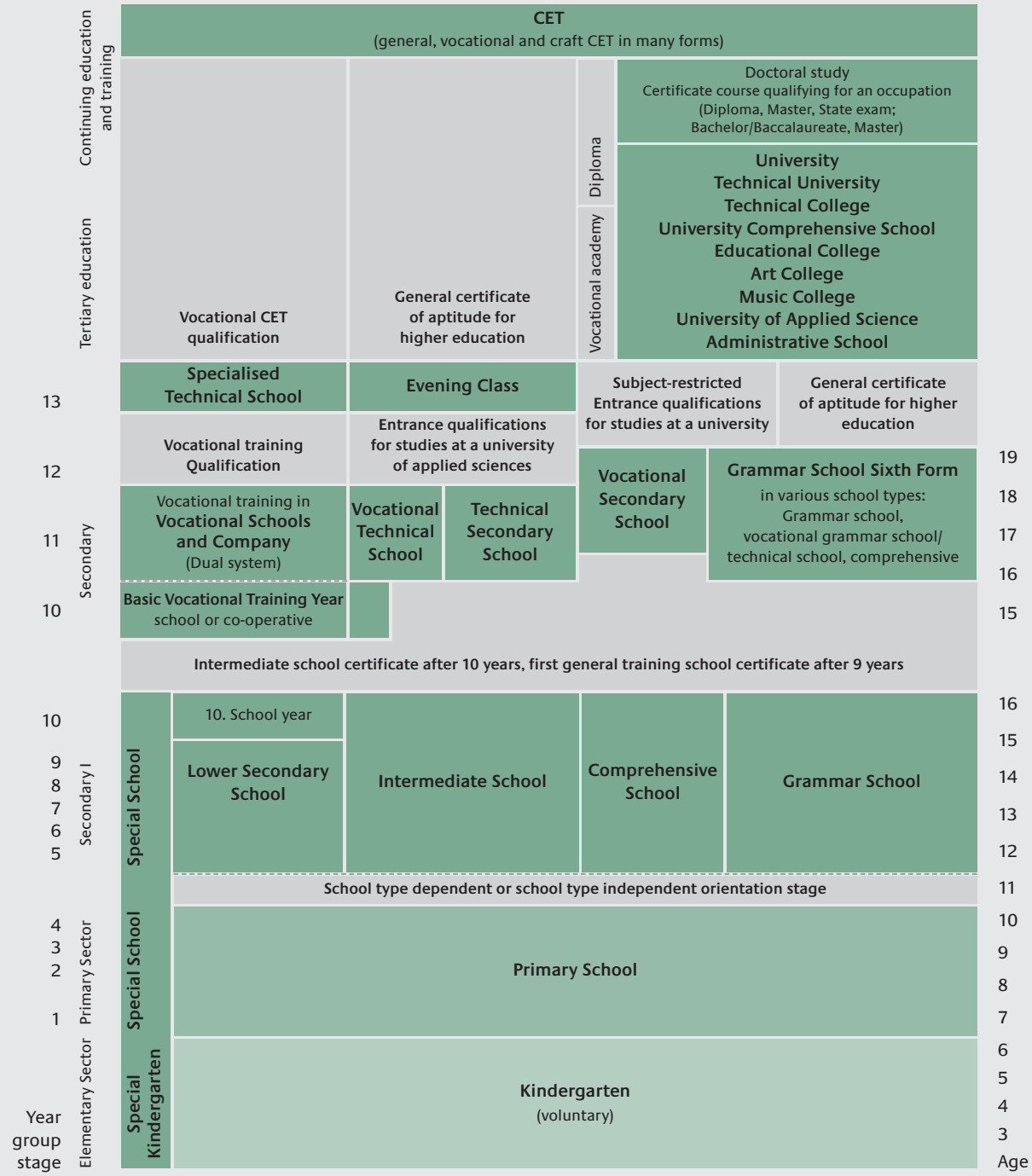
- Non-school vocational training and CET
- Training grants
- Protection of participants in distance learning
- Measures to promote employment
- Labour market and occupational research.

The reform of Germany's federal system that came into force in summer 2006 restricted the Federal Government's capacity to make framework legislation to higher education admission and qualifications (art. 72, section 3, no. 6, GG, amended version in conjunction with art. 74, section 1 no 33, GG, amended version.) Furthermore, the Federal Government can continue to be active in agreement with the Länder in the sector of academic and research projects in universities and colleges (art. 91b, section 1, no. 2, GG) and in the conduct of the Länder in research structures at universities and colleges – including large scale research facilities – within the framework of the so-called "joint tasks" (art. 91b GG, amended version).

This means that education policy has largely been transferred to the Länder. The Federal Government is still responsible for regulating higher education admission and qualifications, although the Länder may choose to deviate from federal legislation, and for the company part of vocational training in the dual system as a part of economic law. In cases of cross-regional significance, the Federal Government and the Länder can work together on the basis of agreements on research promotion, as well as on activities to determine the effectiveness of the education system in international comparison.

The schematic overview below shows the basic structure of the education system, but does not allow any conclusions to be drawn on participation. Organisational forms and designations vary between the Länder.

Figure 1: Education in Germany: Basic structure
Source: Secretariat of the Standing Conference of Ministers of Education and Cultural Affairs in the Federal Republic of Germany



Vocational training

The diagram below clarifies the significance of the various vocational training pathways. Whilst around one in five students in each year group completes higher educational studies, around one in two will come from (inter-)company training in the dual system. About 15 % remain long-term without vocational training.

Relative to all school leavers from general schools, the proportion of school leavers who had signed a new training contract was in autumn 2004 even higher, at around 60 %. This was a total of 572,980 young people, 91 % of whom had a company training place and 9 % an interplant training place. 358,870 school leavers began their higher educational studies at this time.

Figure 2: Structure of a year group by type of qualification, 2004

after: Schaubilder zur Berufsbildung, BIBB, 2006; www.bibb.de/dokumente/pdf/a22_ausweitstat_schaubilder_heft-2006.pdf

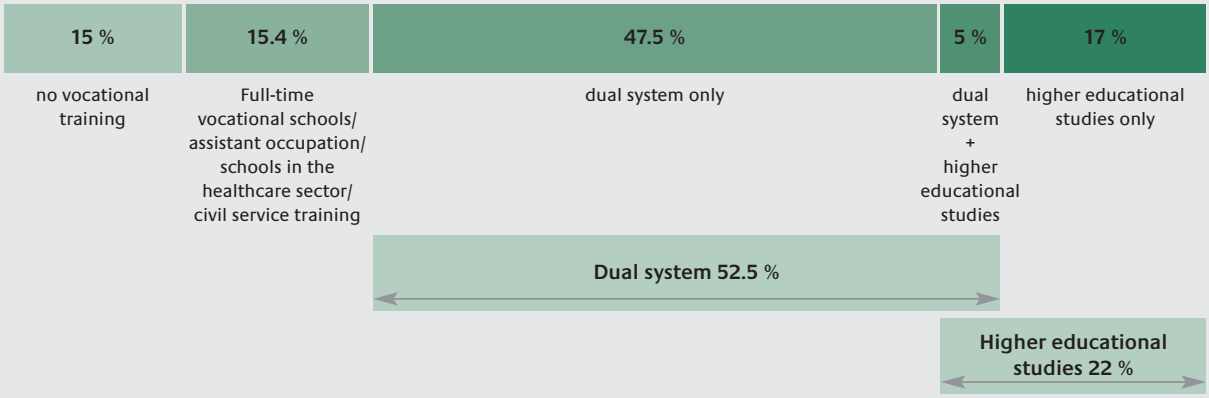
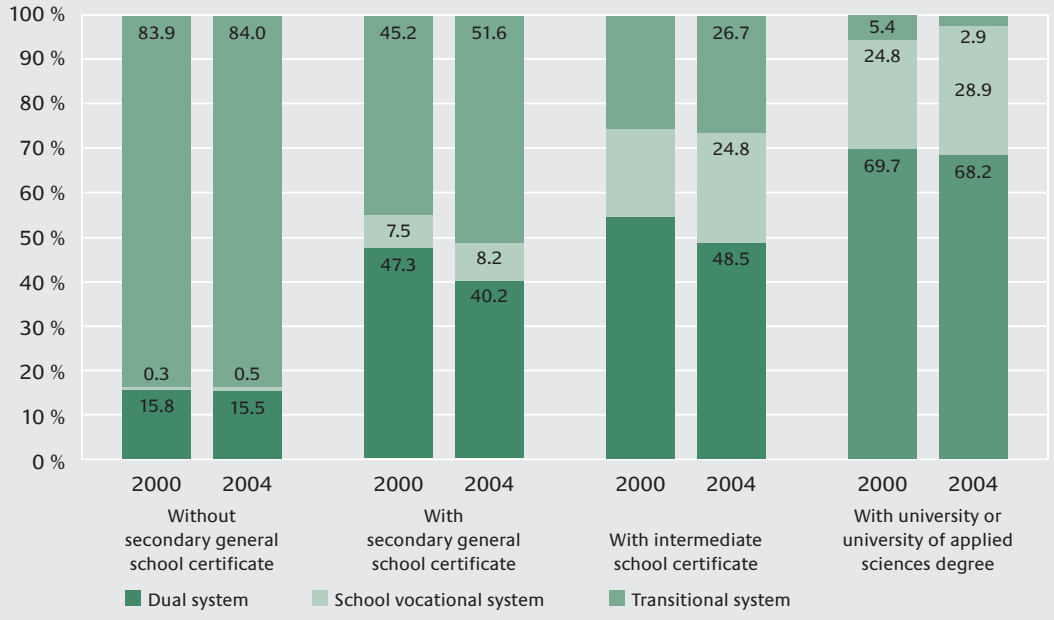


Figure 3: Distribution of school leavers among the three sectors of the vocational training system between 2000 and 2004, by type of prior education at school (%)

Source: see Konsortium Bildungsberichterstattung (Hrsg.) (2006), p. 83



Increasing numbers of young people are now confronted with the difficulties of making the transition from school to training and/or employment. The transition system between general school and qualified vocational training has seen an increase in participants of 43 % during the last ten years. Although difficulties here most affect the lowest educational levels, they are not the only people affected, as the illustration below shows.

The number of early school leavers has dropped continually over recent years. Whereas 9.6 % of pupils left school without a secondary general leaving certificate in the year 2000, only 9 % did so in 2003. By 2005, this figure had dropped further to 8.2 %. In Germany, "early school leavers" are pupils who leave school without a secondary general leaving certificate.

Vocational training in secondary level II

Vocational training in secondary level II takes place in both the dual system, i.e. the combination of company-based training and part-time vocational school, and in full-time vocational schools. The dual system is the largest educational sector in secondary level II: school-leavers from all types of school take up training places in the dual system.

The Federal Government is responsible for vocational training in companies, the Länder are responsible for vocational training in schools and hence also for the part-time vocational schools.

The key legislation relating to the vocational training sector are the Berufsbildungsgesetz (Vocational Training Act – BBiG) and the Handwerksordnung (Crafts Code – HwO), which contain predominantly identical rules for trades and crafts in terms of vocational training.

The Federal Ministry of Economics and Technology (BMWi) or the competent ministry that is otherwise responsible can, in agreement with the Federal Ministry of Education and Research (BMBF), grant state recognition to apprenticeships by means of an executive order law and enact training regimes for the apprenticeships. The training regimes set out the goals, duration, content and examination requirements for training in companies. The Federal Institute for Vocational Education and Training (BiBB) develops the draft regulations together with experts from professions appointed by the central organisations of employers and trade unions. There are currently 342 apprenticeship trades in Germany.[11]

The responsibility for issuing advice, monitoring the implementation of training in companies, the holding of examinations and the award of certificates/qualifications lies with the "competent bodies" in the dual system, with the respective chambers of commerce and industry as self-regulatory bodies in the training sectors for industry and commerce, trades and crafts and the independent professions, and above all the ministries in the Länder for all other training sectors.

Vocational training in the tertiary system

Tertiary education comprises education processes at colleges and universities. Furthermore, the vocational academies that exist in some Länder and other individual non-university establishments are included in this sector. They offer vocational training paths for graduates of secondary education II with an entrance qualification for studies at universities of applied science. The detailed regulations in this sector are the responsibility of the individual Länder; the Hochschulrahmengesetz (Framework Act for Higher Education – HRG) currently still regulates the framework for higher education, for example, the fundamental duties of colleges/universities and their legal position. As a result of the reform of Germany's federal system, it has been decided to abolish the Framework Act on Higher Education as of 1 October 2008.[12] Thereafter, the Federal Government will only have the authority to make framework legislation for higher education admission and qualifications. It is anticipated that the transition of competences to the Länder will give rise to numerous Land- and university/college-specific regulations whose

11 As at July 2007.

12 The Federal Government resolved to draft an "Act abolishing the Framework Act for Higher Education" in May 2007. It is intended to come into effect on 1 October 2003. The abolition of this act should signal a move to release universities and colleges from restrictive regulations in order to encourage competition. (Drucksache 352/07, p. 7).

effects on the acceptance and transparency of the recognition of qualified employment cannot yet be measured.

Continuing education and training

Owing to its importance, the CET sector in Germany is called the fourth pillar of the education system – in addition to general and vocational schools as the first pillar, vocational training establishments as the second pillar and universities and universities of applied sciences as the third pillar. In contrast to the other three, the CET sector is characterised by a wide variety of providers, a largely market-oriented nature, a comparatively low level of regulation by the state which has at most a subsidiary role, voluntary participation and multi-functionality.

The main legal provisions on CET are set out at federal level in the Vocational Training Act (BBiG) and the Code on Social Law III (SGB III) including the Employment Promotion Act (AFG). At Länder level, there are laws on adult education and statutory educational release. In addition to these central statutory provisions, there are other regulations relating to CET such as the Distance Learning Protection Act (FernUSG) and the Framework Act on Higher Education (HRG), the Länder school laws regulating vocational schools, the Länder laws on higher education and a multitude of collective agreements.

CET or non-formal education comprises all organised activities by providers of continuing education, especially courses and seminars. Traditionally a distinction is drawn between vocational and non-vocational, or general, CET. However, the distinction between these two categories is somewhat fuzzy as different criteria such as the subject and goal of the activity, and the interest of the students, can be included in the definition which can result in overlaps.

In vocational CET, a distinction is made between company-based CET i.e. initiated and mostly financed by companies, that may take place and be implemented outside the company, and non-company vocational CET. Non-company CET normally includes general, political and cultural continuing education.

Reform efforts to increase transfer opportunities

The brief description of the various sectors and responsibilities shows that the education system as a whole is very diverse. On the one hand there has traditionally been a relatively strong separation between general education and vocational training, but also, within vocational training, between training and CET. On the other hand, the large number of players, especially in CET, leads to a certain lack of clarity. Furthermore, the independence in cultural and educational matters of the Länder requires effort to achieve national comparability and recognition of educational pathways regulated under Länder law. There are also numerous CET regulations at chamber of commerce level in vocational CET. Against this background, transfer opportunities within and between educational sectors pose a major challenge.

However, statutory regulations have been passed and education-policy initiatives developed recently to increase transfer opportunities in the education system. The Vocational Training Reform Act that came into force on 1 April 2005 has reformed and amalgamated the Vocational Training Act and the Vocational Training Promotion Act. The provisions therein improve transfer opportunities at the interfaces between vocational preparation and dual training, between full-time training in a school and company-based training and also between dual training and further training and they simplify access to examinations for those who have not progressed through the dual CET ("External exams").

The new statutory provisions of relevance to transfer opportunities are summarised below. If they have already been put into practice and information on their implementation is available, they are covered in more detail in subsequent sections.

Preparation for vocational training

Vocational preparation has been included in the Vocational Training Act for the first time. This further develops support for the less-advantaged as an integral part of vocational training. Persons whose level of development makes it unlikely that they will succeed in training for an apprenticeship trade can obtain qualifications by means of qualification modules developed from the content

of recognised apprenticeships (§ 68 et seq BBiG). (Section A.1.1.5)

Crediting of prior vocational training towards the training period

Attendance at an educational pathway in vocational schools may be credited in full or in part towards training in a recognised apprenticeship if there are appropriate provisions in an executive order law at Länder level (§ 7 BBiG).

Admission to final examinations in the dual system after attending a vocational school

If an educational pathway at a vocational school or other vocational training establishment is equivalent to vocational training in a recognised apprenticeship, graduates of this educational pathway shall be admitted (§ 43 (2) BBiG). Länder governments may enact executive order laws to this effect. (Section A.1.1.1)

Admission to final examinations in the dual system based on work experience

The Vocational Training Reform Act has also facilitated access to "external students' examinations". § 45 BBiG states that persons may be admitted to a final examination in an apprenticeship trade if they can provide evidence that they have been working in the trade for at least one and a half times (previously twice) the training period. However, this evidence of a minimum period may be waived if the candidate can demonstrate that he/she has acquired the necessary vocational action competences . (Section A.1.1.1)

Closer integration of vocational training and CET

The Vocational Training Reform Act has introduced the possibility of teaching, examining and certifying competences that go beyond training. In order to obtain these "additional qualifications", amongst others additional optional modules and parts of other training regimes, as well as further training regimes, may be considered (§ 5 (2) 5, § 49 BBiG).

A.1 Recognition procedures in the education system and employment system

The procedures described in this section are associated with formal recognition and accordingly facilitate access to advanced educational pathways and – providing the labour market allows it – also to the employment system. Hradil's observation in the 1970s, namely that in light of the situation in the labour market, educational levels have changed "from a sufficient but often unnecessary, to a necessary but often insufficient condition for entry to higher-paid and more highly-regarded vocational fields", still applies today.[13] Some of the procedures have existed since the 1960s. In those days, the major concerns were breaking down the high amount of selectivity in the education system and enabling access to higher education for sections of society with low levels of academic achievement. Although much has changed in Germany since then and barriers have certainly been lifted, the issues of reducing social selectivity and improving equal opportunities with regard to access to education are still relevant today. The increase in educational achievement in the form of the increasing participation in CET of low-skilled workers and rising numbers of people studying, growing professional and geographic mobility, and the utilisation of existing potential are all important concerns in the debate on recognition, both for individuals themselves and for society.

The procedures described here focus on different target groups, frequently on people with work experience, and are characterised by different approaches. Whilst retraining and the second educational pathway are assigned, for example, to organised CET with teaching and certification (and, therefore, to non-formal learning), in some Länder experiential learning in working life (that is, informal learning) constitutes a pre-requisite for admission to an external students' examination and the third educational pathway. It is possible but not necessary to prepare for this specifically in a course.

A distinction is made between procedures attributed to vocational training and CET to which the BBiG or HwO and other federal regulations apply, and higher education procedures, the definition of which is predominantly the responsibility of the Länder.

For the purposes of presenting the few statistics available in this section, the overview tables below contain data on the overall population and percentage of foreign nationals in the Federal Republic of Germany as well as data on employment status by age group.

Table 1: Population in Germany in 2005, with percentage of foreign nationals

Age group	Total	Foreign nationals (%)
under 18 Jahre	14.557.404	9
18–21	3.815.139	10
22–24	2.966.926	13
25–29	4.852.077	17
30–34	5.003.176	17
35–39	6.691.142	11
40–44	7.190.003	9
45–49	6.349.005	8
50–54	5.619.568	8
55–59	4.853.457	9
60–64	4.670.024	7
65–69	5.374.399	4
70–74	3.759.730	3
75–79	3.055.125	2
80–84	2.158.010	2
85 and above	1.522.810	3
Total	82.437.995	9

Source: Statistisches Bundesamt Wiesbaden 2007

13 Hradil, Stefan (1990): Epochaler Umbruch oder ganz normaler Wandel? Wie weit reichen die neuen Veränderungen der Sozialstruktur in der Bundesrepublik? In: Bundeszentrale für Politische Bildung, p. 82.

Table 2: Employment status in 2005

Age group	Population	Employed	Unemployed	Labour force	Not in labour force
Under 15 years of age	11,481	–	–	–	11,481
15–20 excl.	4,921	1,266	218	1,484	3,437
20–25 excl.	4,916	2,916	529	3,445	1,471
25–30 excl.	4,807	3,348	479	3,827	980
30–35 excl.	5,091	3,854	458	4,312	779
35–40 excl.	6,665	5,288	547	5,836	829
40–45 excl.	7,212	5,835	628	6,463	749
45–50 excl.	6,138	4,896	544	5,439	698
50–55 excl.	5,591	4,202	527	4,729	862
55–60 excl.	4,803	3,039	475	3,514	1,289
60–65 excl.	6,216	1,509	175	1,685	4,532
65 and over	14,626	413	/	415	14,210

Source: Statistisches Bundesamt Wiesbaden

A.1.1 Procedures in the vocational training and CET system

A.1.1.1 External students' examination

A qualification in a recognised apprenticeship trade can also be obtained by persons who have not gone through the dual training usually required, but can instead provide evidence of relevant employment or training periods. In concrete terms, admission to the external students' examination under § 45 (2) BBiB and § 37 (2) HwO is linked to the following conditions:

- It must be preceded by employment in the occupation of at least one and a half times the length of the prescribed training period.
- This minimum period may be waived if the candidate can demonstrate that he/she has acquired vocational competence that justifies admission to the examination.
- Periods of employment also include training periods in another relevant apprenticeship trade.
- Foreign qualifications and periods of employment abroad will be taken into account.

The reform of the Vocational Training Act in 2005 explicitly gave on-the-job learning greater weight in the external students' examination than previously, contributing to prospects and transfer opportunities within the vocational training system.[14]

In addition to these forms of access, under § 43 (2) BBiG and § 36 (2) HwO training in a vocational school or other educational establishment is a pre-requisite for admission to the external students' examination if this educational pathway is equivalent to vocational training in a recognised apprenticeship.

The external students' examination was devised as part of the educational reforms in the 1960s and 1970s for adults with long work experience who, owing to external circumstances, were unable to gain a vocational qualification and wanted to obtain them at a later stage. Admission to the external students' examination is granted by the competent bodies solely on the basis of documentary evidence. The opportunities provided by the external students' examination are rarely covered in public debate. These lie in an improved status for individuals and the potential recruitment of executives for companies.

In 2005, over 7 % of candidates for examinations in the various training sectors excluding crafts[15] were externals, most of whom were engaged in relevant employment (83 %). Since the low in 2000, the number of external examination candidates has increased by just under 9,000 to around 30,000 but is still lower than the 1995 level.[16] Most external students' examinations were run in the "industry and commerce" sector (80 %), reflecting its standing among apprenticeship trades: the significance of other sectors is not reflected, however: whilst for example the "domestic" sector accounts for only 1 % of the overall examination figures, its proportion of the external students' examination is around 11 %, making it the second most important sector. The main reason for this is the large number of people from vocational schools and educational establishments who sit the external students' examination.

14 See also BMBF (Hrsg.) (2005b): Die Reform der beruflichen Bildung. Berufsbildungsgesetz 2005. Zusammenstellung der Begründungen zu den Einzelvorschriften des Berufsbildungsgesetzes.

15 External candidates were not reported separately in the crafts sector but are included in the figures on candidates for final examinations.

16 See also on this and for the following: BMBF (Hrsg.) (2007a): Berufsbildungsbericht 2007, no location 2007 (available via Internet).

Table 3: External examination candidates by admission and training sector in 2005

Training sector	Participants		of which: External examination candidates as percentage values	
	Admission through		Admission through	
	BBiG § 43, Section 2	BBiG § 45, Section 2	BBiG § 43, Section 2	BBiG § 45, Section 2
	vocational school/ educational establishment	Employment	vocational school/ educational establishment	Employment
	Number		Number	
Industry and commerce	2,754	20,601	11.8	88.2
Independent professions	25	198	11.2	88.8
Public sector	43	877	4.7	95.3
Agriculture	14	1,460	0.9	99.1
Domestic studies	2,323	1,336	63.5	36.5
Maritime shipping	0	0	–	–
All sectors	5,159	24,472	17.4	82.6

*except Crafts
Source: BMBF (Hrsg.) (2007a): Übersicht 2.2.5/3

In most training sectors, externals tend to have a lower examination pass rate than candidates as a whole and this is particularly marked in the "industry and commerce" sector. One exception is the "agriculture" sector where for years candidates with relevant work experience have been more successful than candidates following the regular training pathway. This supports the argument that experiential learning is particularly relevant in this sector and highlights the great impact of people with work experience gaining qualifications at a later stage.

Table 4: External examination candidates by training area since 1995

Year	External overall	Percentage of all examination candidates	passed examinations overall	passed examinations External
	Number	Percent		
All training sectors*				
1995	31,903	7.7	86.7	77.0
2000	20,757	5.4	88.6	79.4
2005	29,631	7.4	85.3	76.3
Industry and commerce				
1995	23,800	7.7	86.4	73.9
2000	14,678	5.0	88.9	76.4
2005	23,355	7.4	88.0	74.4
Independent professions				
1995	743	1.4	85.8	84.9
2000	211	0.4	89.0	77.3
2005	223	0.5	87.6	84.8
Public sector				
1995	2,572	8.7	91.4	83.4
2000	1,246	7.1	91.2	79.2
2005	920	5.8	91.2	86.2
Agriculture				
1995	1,868	14.9	86.9	94.4
2000	786	4.7	81.2	94.3
2005	1,474	9.6	82.0	87.1
Domestic studies				
1995	2,895	37.0	87.2	83.3
2000	3,836	49.0	86.6	88.0
2005	3,659	47.8	83.5	81.2

*except Crafts
Source: BMBF (Hrsg.) (2007a): Übersicht 2.2.5/2

A 1990s study into external students' examinations by the Federal Institute for Vocational Education and Training shows that just under half the candidates have a secondary general school certificate, a third have an intermediate school leaving certificate and around 15 % have entrance qualification for studies at universities of applied science. For three quarters of respondents, the external students' examination led to a second vocational qualification.[17] Generally the decision to sit the examination was an individual one, motivated by finding a better job and improving their situation in material terms, and less at the behest of a company. According to their statements, by having a recognised vocational qualification they have achieved better opportunities for promotion, flexibility and mobility in the labour market. This is equivalent to the benefit that participants in CET expect.

Developments relating to two-year apprenticeships make clear the direction in which further development of non-formal and informal learning in the context of vocational training will go. For instance, as part of the modernisation of retail trades by the Federal Institute for Vocational Education and Training computer-aided, practical and activity-based multimedia learning media have been developed with the social partners to support training in retail. These learning packages are associated with the idea of facilitating preparation for the external students' examination.

The content of the learning package is set up virtually; the learning process can be organised and formulated independently by training staff. This means that, for the first time, multimedia learning media are available for training in retail as an alternative option for qualification. The learning packages contain selected content from the third apprenticeship year in the retail salesman/-woman apprenticeship and make possible independent study of this content in preparation for the final examination.

The aim of the learning package is primarily to give trained salesmen and saleswomen who have completed two years of training, but do not have a follow-up agreement, a new opportunity to continue their training and acquire the knowledge and skills of the third apprenticeship year and take the final examination for retail salesman/-woman.

A.1.1.2 Advanced further training

As a form of further training generally intended to serve the maintenance, adaptation and expansion of vocational competence, advanced further training is geared specifically to the expansion of this vocational competence and hence facilitating career promotion (§ 1 (4) BBiG). Advanced further training is an important area of CET and accordingly is assigned to non-formal learning in Germany. Organised advanced further training plays an important role in lifelong learning, a fact which – despite the decline during the last decade – can be proven by comparatively high numbers of participants and graduates.[18]

As a rule, a vocational certificate and a minimum term of practical employment are pre-requisites for further training examinations. Preparation for admission to an advanced further training examination can be achieved by attending a course or a specialised technical school or, as for example for master craftsmen and craftswomen, by informal vocational experiential learning and the independent acquisition of theoretical subject knowledge.

The recognition and regulation of further training examinations are subject to the Federal Ministry of Education and Research in conjunction with the respective competent ministries, who together enact appropriate executive order laws. These govern the designation of the further training qualification, the goal, content and

17 See Hecker (1994): Ein nachgeholter Berufsabschluss lohnt sich allemal – Externenprüfung in der Praxis. In: Berufsbildung in Wissenschaft und Praxis (6) p. 27–33.

18 See BMBF (Hrsg.) (2007a), p. 8; The following statements relate to further training for occupations regulated by the BBiG and HwO. Further training courses for healthcare professionals and people working in psychotherapy, for example, which are regulated in some Länder in CET directives and guidelines, are not listed here (see deutsche gesellschaft für verhaltenstherapie e.V. (dgvt) (2006): Aktuelles aus der psychosozialen Fach- und Berufspolitik. Tübingen. See at http://www.dgvt.de/fileadmin/user_upload/Dokumente/Rosa_Beilage/RosaBeilage_3_06_Stand_24.08.06.pdf.

requirements for the examinations, admission requirements and the examination procedure (§ 53 BBiG). If executive order laws pursuant to § 53 are not enacted, the respective competent bodies, e.g. the regional chambers of commerce, may issue regulations for further training examinations (§ 54 BBiG). The holding of the examinations is the responsibility of the competent bodies (§ 56 BBiG).

State legislation regulates advanced further training in specialist technical schools in the sectors of agriculture, design, technology, economy and welfare. It describes a voluntary framework of educational opportunities within the framework of the EU definition of lifelong learning[19] "outside the main system" and is predominantly offered by privately governed institutions characterised by the following functions:

Advanced further training is vocational further training that aims to "enable specialists with vocational experience to undertake intermediate level activities. In particular, this includes specialist activities and/or middle-management activities that usually lie within the functional range of university/college graduates and qualified specialists."[20] Some Länder offer the possibility of entry to university/college under certain circumstances. Attendance at specialised technical schools and the chambers' preparation course is considered to be valid within the framework of the Advanced Further Training Assistance Act (federal law for the promotion of training as a master craftsman), the so-called Meister-BAföG.

The Advanced Further Training Assistance Act (AFBG) was enacted by the federal government in April 1996 with the aim of increasing participation in vocational advanced further training and supporting business start-ups. At the same time, it promotes transition between educational pathways. This means that, for example, a qualification as a master craftsman can, in some cases, enable admission to a university or college. The Advanced Further Training Assistance Act enables craftsmen and other specialists holding a recognised qualification from initial training or a comparable vocational qualification under the Vocational Training Act (BBiG) or Crafts Code (HwO), and who wish to take advanced further training to receive financial support. In order to receive funding, the courses must specifically prepare for public further training examinations under BBiG or HwO or equivalent qualifications under federal or Länder law, which must be of a higher level than a specialist, journeyman or qualified assistant or a vocational school-leaving certificate.[21]

Traditional advanced further training includes the so-called master craftsman's courses in preparation for master craftsman's examinations in the crafts, industry and agriculture. The master craftsman's examination in crafts is evidence, accepted by a state examination authority (master craftsman's examination board) set up at the headquarters of the Chamber of Crafts, of the ability to run a craft business independently and to provide proper training, as well as of the existence of the necessary technical, business, sales, legal and vocational teaching skills. Passing the master craftsman's examination constitutes the right to practise in crafts sectors that require compulsory training. The industrial master craftsman's examination qualifies the holder to take on management duties in an industrial company. Master craftsman's examinations can also be taken with the chamber of agriculture.

Until 2003, the only people technically qualified, and hence entitled, to offer company-based training were apprentice masters and those who, under the trainer certification regulation (AEVO) were able to demonstrate their technical aptitude by taking and passing trainer certification after three years' work experience in the occupation. In 2003, the AEVO was suspended for five years so that in 2008 trainers will no longer have to submit the separate AEVO evidence of qualification.[22] However, the possibility of sitting relevant examinations that enable competences acquired at work

19 See Commission of the European Communities (2000): Memorandum on Lifelong Learning, SEC(2000) 1832, Brussels, p. 10.

20 See Reuling, Jochen; Hanf, Georg: The Role of National Qualifications Systems in Promoting Lifelong Learning. Länderbericht Deutschland. Hrsg. vom BiBB, Forschung Spezial (7), Bielefeld 2004, p. 14.

21 http://www.meister-bafoeg.info/de/60.php (access date 12.6.07).

22 See also BMBF (Hrsg.) (2007a), p. 250.

to be proven still exists. The suspension of the examination was intended to stimulate and facilitate company-based training.

The vast majority of advanced further training takes place in the industry and commerce (53 %) and crafts (38 %) sectors (see Table 5). In 2005, less than one tenth of all CET examinations were taken in agriculture and domestic studies, the public sector, and the independent professions.[23] Participation in examinations in crafts has declined greatly over the last decade, in particular for further training examinations to become an apprentice master. Around 53,000 examinations were sat in 1995, dropping to 33,000 examinations in the year 2000 and just 23,000 examinations in 2005. This represents a drop of at least a third. As a whole, participation in examinations to become a master tradesman in industry has also dropped drastically over the last decade, although the reduction in participation has abated in examinations since the year 2000.[24] Examinations in agriculture and domestic studies were sat by only around 2,000 and 500 people respectively in 2005. These figures are lower than both the 1995 and the year 2000 participation figures.

On the other hand, the number of participants in examinations to become certified specialists in business or technical fields has been rising continuously.[25] Significant increases were seen between 1995 and 2000, and this trend was consolidated between 2000 and 2005, when a total of around 32,0000 examinations were taken in this sector. This means that – despite the decline in examinations to become a master tradesman in industry – the industry and commerce sector has gained in popularity overall. The declining popularity of all further training examinations is partly due to a decline in participation in the eastern Länder.[26] Recent developments indicate that a further decline in participation in advanced further training examinations is not expected, and that the federal law for the promotion of training as a master craftsman that was introduced in 2002 as part of the Advanced Further Training Assistance Act is contributing to the stabilisation of interest in further training.[27]

The average pass rate for advanced further training examinations in all training sectors is 80 %. The below-average pass rates for examinations to become certified specialists in business (below 60 %) and technical fields (67 %) are conspicuous. However, the pass rate for candidates in crafts is much more encouraging, especially in the case of examinations to become an apprentice master, where the pass rate has risen significantly in recent years.

---

23 See BMBF (Hrsg.) (2007a), p. 245.

24 It is often claimed that the removal of the necessity of a qualification as a master craftsman for trainers and the suspension of the AEVO are responsible for the decline in candidates for master craftsman's examinations. However, these factors cannot explain why the figures dropped over a ten year period since 1995, since these took effect only in 2004/2003 respectively. See footnote 25.

25 Numerous qualifications can now be gained in this field and are in increasing demand. This includes the following qualifications: Betriebswirt/in IHK, Bilanzbuchhalter/in International, Controller IHK, Fachberater/in für Finanzdienstleistungen, Fachkaufmann/-frau für Außenwirtschaft, für Einkauf und Logistik, für Marketing, für Werbung und Kommunikation, Fachagrarwirt/in Fachwirt/in für Finanzberatung, im Sozial- und Gesundheitswesen, Fremdsprachenkorrespondent/in Englisch, Geprüfte/r Bankfachwirt/in, geprüfte/r Bilanzbuchhalter/in, geprüfte/r Fachkaufmann/-frau für Büromanagement, geprüfte/r Immobilienfachwirt/in, geprüfte/r Informatiker/in, geprüfte/r Industriefachwirt/in, geprüfte/r Versicherungsfachwirt/in, geprüfte/r Werbefachwirt/in etc. (see http://www.fortbildung-bw.de/wb/01_weiterbildungsinteressierte/01_berufswege/industrie.php). For a comprehensive summary of the qualifications that can be obtained as part of advanced further training, including in the technical sector and the independent professions, see http://www.meister-bafoeg.info/de/84.php.

26 See Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2006a): Berufsbildungsbericht 2006, Berlin, p. 252. The effects of removing the necessity of having a qualification as a master craftsman in 53 of the 94 previously restricted crafts trades in 2004 cannot yet be evaluated in the long term. However, the decline in candidates between 2004 and 2005 is less noticeable than in previous years. See. BMBF (Hrsg.) (2007a), Übersicht 4.1.3/1.

27 See BMBF (Hrsg.) (2007a), p.244.

Table 5: Development in participation in advanced further training examinations and in pass rates since 1995

	1995		2000			2005		
	Candidates	Passed examinations in %	Candidates	Change in number of candidates since 1995 in %	Passed examinations in %	Candidates	Change in number of candidates since 2000 in %	Passed examinations in %
Industry and commerce	70,557	73.5	65,211	-7,6	75.2	66,823	2.5	69.8
of which:								
Certified specialist in business fields	12,241	65.4	12,878	5,2	62.4	14,685	14.0	58.7
Certified specialist in technical fields	14,096	76.9	17,241	22,3	74.4	17,433	1.1	67.2
Master tradesman in industry	15,939	80.5	10,555	-33,8	83.8	9,757	-7.6	79.5
Crafts	74,437	82.4	55,912	-24,9	89.0	47,737	-14.6	94.1
of which:								
Apprentice master	53,357	79.4	33,291	-37,6	89.3	22,133	-33.5	99.1
Independent professions	931	99.5	4,652	399,7	79.4	4,989	7.2	79.5
Public sector	7,272	94.8	2,133	-70,7	89.8	2,991	40.2	90.1
Agriculture	3,189	84.6	2,577	-19,2	83.2	2,011	-22.0	82.9
Domestic studies	1,163	80.3	721	-38,0	71.4	522	-27.6	70.3
overall	**157,547**	**79.1**	**131,206**	**-16,7**	**81.6**	**125,073**	**-4.7**	**80.2**

Source: BMBF (Hrsg.) (2007a), Übersicht 4.1.3/1. Statistisches Bundesamt, Fachserie 11, Reihe 3, Berufliche Bildung 1995; ies-Berechnungen

The number of people studying at specialised technical schools has remained more or less constant during the last decade, at 155,000 per year.[28]
The proportion of women taking part in further training examinations in 2005 was 35 %, with figures for the eastern and western Länder drawing closer. The figure for women from the eastern Länder was just under 38 %, with around 34 % for women from the western Länder. The long-term decline in participation in further training examinations by women in the eastern Länder is particularly striking here – in 1992, this figure was 46 %.[29] This development corresponds with the

28 Statement by the Secreteriate of Standing Conference of Ministers of Education and Cultural Affairs (KMK) of 13.08.2007.

29 BMBF (Hrsg.) (2007a), p.245 et seq.

results of the CET reporting system: at the start of the 1990s, women in the eastern Länder were significantly more active in CET than women in the western Länder, but the gap has been closing at an increasing rate since the end of the 1990s.

Women are particularly strongly represented in individual further training occupations such as the "certified specialist in the industry and commerce sector" group where they account for 76 % of candidates for the examination to become a certified HR specialist and 71 % of candidates wishing to become an accountant. In the independent occupations sector, the proportion of women taking part in examinations to become a certified tax specialist is also high. However, women are less well represented in the industrial further training occupations, making up only 17 % of all candidates for examinations to become an apprentice master. [30]

A.1.1.3 Retraining under BBiG or HwO

Since 1972 it has been possible in Germany to obtain a vocational qualification by means of retraining followed by an examination set by the competent body. In contrast to advanced further training, vocational retraining qualifies the student to be employed in a different sector, in other words it leads to a new vocational qualification. According to the German understanding of CET, therefore, retraining as the continuation or resumption of organised learning after completion of a variable length initial training phase[31] is included in the non-formal sector. The pre-requisite for participation in retraining, therefore, is to have already completed vocational training, in which foreign qualifications and periods of employment abroad must be taken into account (§ 61 BBiG).

The purpose of retraining is to enable employees who can no longer remain in their occupation for health reasons or owing to the labour market to learn a new occupation and start work in another vocational field. Retraining can also lead to promotion. At the level of the economy as a whole, retraining measures also prevent unemployment and prevent or reduce a lack of qualified specialists.

Pursuant to § 47 (1) BBiG, retraining must meet the particular requirements of adult education in terms of content, purpose and duration, and may be provided both individually and in groups. With single-company measures, retraining takes place in companies in the trade and is supplemented by teaching in a vocational school. For group training, a training provider, such as a company in the trade or an educational establishment, has overall responsibility.[32]

Retraining activities as well as their funding are subject to SGB III. In this are set out the requirements for training providers. The duration of a full-time course leading to a qualification in a generally-recognised apprenticeship trade is deemed reasonable according to SGB III if the training period is at least two thirds of the equivalent vocational training period.

Since 1 January 2003, retraining – like other CET – has been funded via education vouchers issued to interested parties by the Employment Agency. Education vouchers can be given to people who are registered unemployed as well as those at risk of unemployment and who need funding. Decisions on awards are made by advisers at the competent employment agency on the basis of profiling and depending on the situation in the regional labour market. Retraining is also financed by other sponsors such as pension fund institutions and professional associations in cases where the applicants previous occupation can no longer be practised for health reasons.

Over the last few years, the Federal Employment Agency has increasingly concentrated on shorter CET courses, and the decline in retraining has been correspondingly high. Whereas just under 62,100 people registered for a final examination after attending a retraining course, the figure in 2005 was around 20 % lower than for the previous year at 49,600. This was less than the previous low point in the year 2000. The proportion

30 BMBF (Hrsg.) (2007a), p. 245 et seq.

31 See Deutscher Bildungsrat (Hrsg.) (1970), p. 197.

32 Coburg IHK (chamber of commerce and industry): Merkblatt der Industrie- und Handelskammer zu Coburg. Grundsätze für die Durchführung von Umschulungs- und Rehabilitationsmaßnahmen. http://www.coburg.ihk.de/downloads/Merkblatt_Umschulung.pdf, (access date 20.06.07).

Table 6: Participation in final examinations following retraining, 2000–2005[34]

Year	overall	Change on previous year (%)	Proportion of women in %	Total pass rates in %
2000	49,744		44.0	85.0
2001	53,565	8.0	43.0	83.0
2002	61,251	14.3	40.3	80.3
2003	53,199	-13.1	40.3	82.1
2004	62,076	16.7	41.1	83.7
2005	49,600	-19.9	39.7	82.9

Source: BMBF (Hrsg.) (2000 ff.): Berufsbildungsbericht 2000 ff., Bonn

of women sitting these examinations has declined almost across the board in recent years, dropping to just under 40 % in 2005.[33]

According to the results of the representative survey within the framework of the CET reporting system, nationally 1 % of all candidates for continuing vocational training in 2003 had attended retraining.[35] For the first time since reunification, this proportion was the same in both western and eastern Länder. Whilst the proportion in the West has remained roughly at this level, the proportions in the East were 5 % in 1994 and still as high as 3 % in 2000. These values show that people were, at least, hopeful of finding different employment in the eastern Länder following reunification.

A.1.1.4 CET in IT

In the light of a confusing number of occupational and job titles in IT and a lack of comparability between certain (CET) qualifications, there was an urgent need for action in this area in Germany. A system was required that could offer guidance on competence profiles and career prospects to the various sectors and to companies, employees, entrants to the labour market, and students. In March 2002, a new, country-wide CET system was introduced that had been formulated in close collaboration with employers, employees, and politicians.[36]

The IT CET system enables IT specialists who have already been trained[37], to qualify and be certified as 29 different types of specialist as a first career step in different fields. IT concentrates on taking competences acquired during working life

33 BMBF (Hrsg.) (2007a), p. 123.

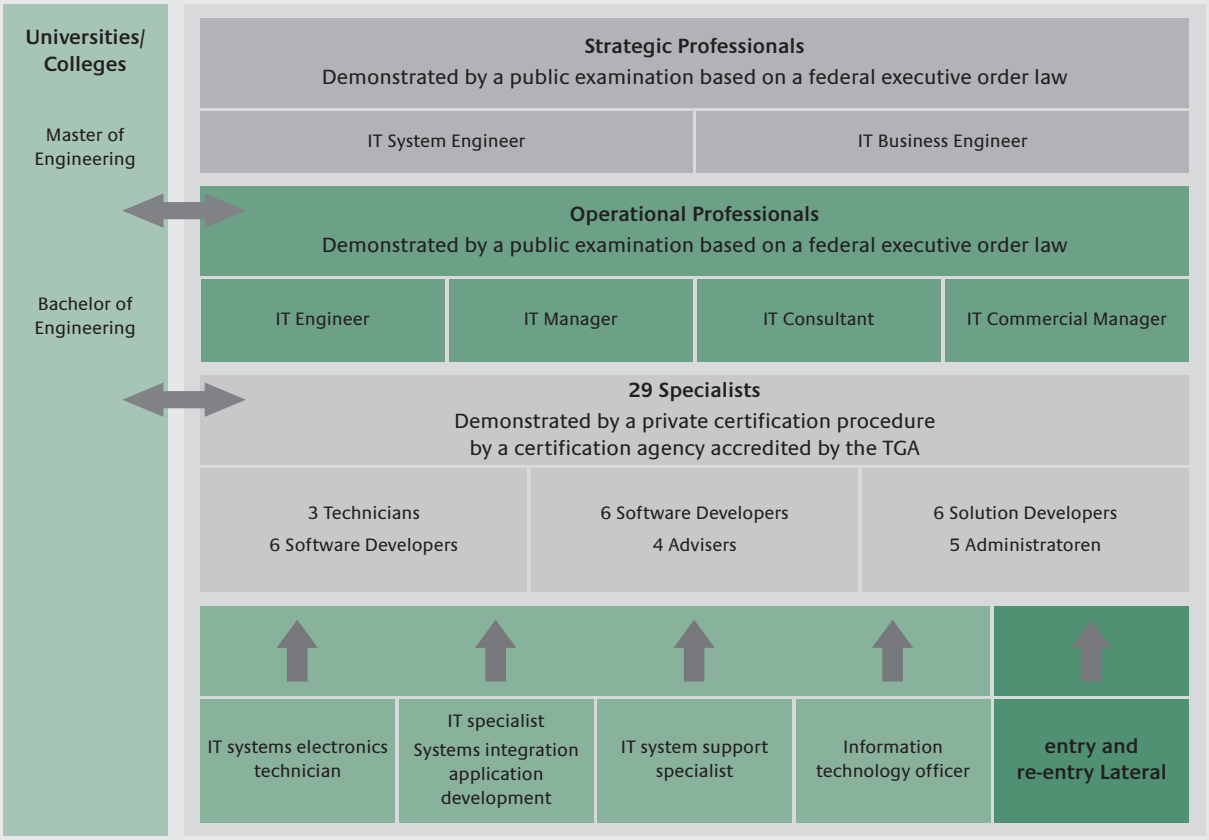
34 Vocational training examinations in the Craft sector are not included since this sector does not report the figures for retraining separately from other final examinations (see BMBF (Hrsg.) (2007a), p. 123.

35 Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2006b): Berichtssystem Weiterbildung IX. Integrierter Gesamtbericht zur Weiterbildungssituation in Deutschland, Bonn, p. 41.

36 See Bundesagentur für Arbeit (2006a): IT Berufe. Informationen für Arbeitnehmerinnen und Arbeitnehmer. Weiterbildung und Beruf, Ausgabe 2006/2007. Nürnberg, p. 22 et seq.

37 As Fachinformatiker/in in application development and system integration, IT-Systemelektroniker/in, IT-System-Kaufmann/-kauffrau or Informatikkaufmann/-kauffrau. These four new apprenticeship trades were formed in 1998 to replace the old occupation of Datenverarbeitungskaufmann/-kauffrau.

Figure 4: IT CET system – vocational careers through work-oriented continuing education
after: Bundesagentur für Arbeit (2006a): IT Berufe. Informationen für Arbeitnehmer/innen. Weiterbildung und Beruf, Ausgabe 2006/2007, Nürnberg



into account and providing CET on the basis of the actual work processes in companies. Following on from this, participants can acquire four different qualifications as "operative professionals" in a second career step and two qualifications as "strategic professionals" in a third step. The special features of the IT CET system are that it enables the acquisition of further qualifications even for lateral participants without a qualification in one of these new IT occupations and that – because of its step-by-step nature – it allows integration into the university system by permitting the transfer of credits to courses at Bachelor's and Master's level (see figure 4).[38]

As yet, the IT CET system has not given rise to enough IT specialists to make a real mark on the labour market. However, the system is described

38 See Hippach-Schneider, Ute; Krause, Martina; Woll, Christian (2007), p. 40. For example, certain universities are showing interest in recognizing partial elements of CET in the form of credits that count towards a Bachelor's or Master's qualification in IT (see Bundesagentur für Arbeit, 2006a, p. 23) Furthermore, mutual crediting of CET and higher education modules is being tested and developed in a pilot programme (ProIT brief info 2004) In Baden-Württemberg, a manual for a credit point system in continuing vocational training – IT sector – has been written based on a "credit framework" developed for universities of applied sciences (see Mucke, Kerstin; Grunwald, Stefan: Leistungspunktsystem in der beruflichen Weiterbildung – Bereich IT. In: BMBF (Hrsg.) (2002): IT-Weiterbildung mit System. Neue Perspektiven für Fachkräfte und Unternehmen. Dokumentation. Bonn, p. 7.

here because of its significant importance with regard to the integration of educational pathways, the international comparability of profiles[39] and the formal recognition of competences acquired by following non-formal and informal pathways.

Access to the IT CET system at specialist level takes place on the basis of a proven qualification in one of the new apprenticeship trades in information and communication technology.[40] Practitioners who do not have relevant qualifications, lateral entrants, and people who have discontinued their studies can obtain admission by proving alternative qualifications or work experience. This takes one of the following forms:

- a vocational qualification for an occupation in the IT sector or
- a vocational qualification for some other occupation followed by at least one year's work experience in the IT sector or
- at least four years' work experience in the IT sector.

Work experience comprises a contract of employment for at least 35 hours per week. Participation in an SGB III-supported CET course of up to 12 months may be credited providing the content is geared to at least a specialists' profile. Furthermore, persons may be admitted who can demonstrate "by means of certificates or some other means that they have acquired qualifications that justify their admission to certification."[41] This means that even people who have discontinued their higher educational studies can gain access to the IT CET system.

An interim analysis by Cer-IT Berlin, the staff certification agency for IT specialists, shows that the IT CET system is actually being used by lateral entrants. According to the agency's information, around 47 % of participants in September 2006 were lateral entrants. One in three had completed vocational training in another field, 6 % had no vocational qualification.

Table 7: Certified IT specialists

Occupational origin	In percent
No training	6
Other vocational training	35
Other higher educational studies	6
Vocational training in IT	49
Higher educational studies in IT	4
Total	100

Source: Cer-IT Berlin: Antwort auf Sonderanfrage, 31.08.2006

The CET is largely organised by the participants themselves. They are supported by educational supervisors and specialist advisers. The supervisors and advisers can come from the participants' own companies, but may also be external consultants.[42]

The examination must be taken no more than two years after starting the project. The responsibilities are divided. Whilst IT specialists undergo personal certification under ISO/IEC 17024 privately according to the accreditation guidelines of German Accreditation (TGA), IT professionals are certified on the basis of national executive order laws by sitting an IHK (Chamber of Commerce and Industry) examination. Recertification of IT specialists is required after five years.

39 http://www.bibb.de/de/1318.htm.

40 As Fachinformatiker/in in application development and system integration, IT-Systemelektroniker/in, IT-System-Kaufmann/-kauffrau or Informatikkaufmann/-kauffrau.

41 See § 2 Zulassung zum Zertifizierungsverfahren der Prüfungsordnung (Cer-IT staff certification agency).

42 Pforr, Yvonne; Balschun, Boreslav; Vock, Rainer (2006): Evaluation des IT-Weiterbildungssystems. Qualifizierung im Prozess der Arbeit. Eine Auswertung und Beschreibung von Modellversuchen und Forschungsprojekten. Abschlussbericht. Wissenschaftliche Diskussionspapiere des BiBB. Heft 84. Bonn, p. 47.

Despite the advantages from an individual, business, and educational point of view, participation is, as yet, relatively low. From mid 2003 to April 2006, there were 750 participants in CET for IT specialists, and an increasing trend could be observed. From mid 2003 to December 2005, 277 people took part in examinations to become operative and strategic professionals. 13 of which wished to become strategic professionals. [43] Therefore the IT-System CET is playing a "more subordinate role" in the IT CET market.[44]

In addition to the resulting need to market the IT CET system appropriately,[45] the main challenges at present are cited as the balancing of third-party and self-direction in the implementation of the project and, related to that, the qualification of educational supervisors and specialist advisers.[46]

A.1.1.5 Preparation for vocational training through qualification modules

Qualification modules are part of the preparation for vocational training, which has been anchored in the Vocational Training Act as an autonomous sector of vocational training since January 2003. They serve as an example of the push to gain recognition for partial qualifications as part of a modular approach to educational pathways, which will be increasingly important in future.

The aim of qualification modules is to teach basic, training-related knowledge and proficiency and prepare participants for training. In principle, participants have the opportunity to credit competences acquired in this way against later vocational training periods.[47] Crediting by companies, one of the goals of which is to accelerate training periods, is not a binding provision of the Vocational Training Act and, according to the DGB, take-up is very slow.[48] However, the statutory option of crediting competences acquired as part of vocational preparation is an important foundation for better integration of vocational preparation and vocational training and for increasing recognition of learning outcomes.[49]

Qualification modules are mainly geared to young people with learning difficulties or social disadvantages whose level of development makes it unlikely that they will succeed in training for a recognised apprenticeship trade. The qualification modules have distinct and time-based learning units developed from the content of recognised apprenticeships (BBiG § 69) which accordingly qualify the holder for an activity that is part of a recognised apprenticeship. In addition to teaching skills for everyday working life, the young people are given additional mentoring and support in social education (BBiG § 68). The learning locations or providers of training are responsible for implementing the qualification modules. The competent bodies in the skilled trades, in industry and the professional associations confirm that the modules are in keeping with the relevant training regulations.

The introduction of qualification modules is intended to improve integration of vocational preparation and training. The aim is to improve young people's opportunities to participate in working life and to increase companies' chances of having more applicants for training and thus more skilled staff.[50] The qualification modules are also intended to improve the quality of training preparation, to increase the differentiation of the providers' quali-

43 See http://kibnet.org/aktuell/itk-marktdaten/index.html.

44 Stiftung Warentest: IT-Weiterbildungssystem. APO: Alternative für Arbeitnehmer. Online document at http://www.stiftung-warentest.de/online/bildung_soziales/weiterbildung/test/1323363/1323363.html.

45 Balschun, Boreslav; Vock, Rainer (2006): Potenziale und Bedarfe zur Nutzung des IT-Weiterbildungssystems. Eine empirische Studie zur Entwicklung des IT-Weiterbildungssystems aus Sicht von Betrieben und IT-Fachkräften. Wissenschaftliche Diskussionspapiere des Bundesinstituts für Berufsbildung. Heft 85. Bonn, p. 174.

46 Balschun u.a. (2006), p. 54.

47 See Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2005a): Berufsbildungsbericht, Berlin, p. 185 et seq.

48 See Frank, Marco (2006): Praktika statt Ausbildung. In: soli aktuell. Newsletter der DGB-Jugend, p. 3.

49 The lack of recognition by companies is criticised by the DGB-Jugend. It is demanding that credits of partial qualifications towards subsequent training contracts be binding. (See Frank (2006), p. 3).

50 See BMBF (Hrsg.) (2006a), p.192.

fication potential and to improve the efficiency of training preparation. According to the originally defined objectives, the certified training-related qualification modules should furthermore increase young people's chances of getting a job or apprenticeship position, reduce dropout figures and increase young people's motivation to learn and achieve – not least because they can be credited to subsequent training.[51] Such impact has, however, not been studied yet.

Qualification modules are regulated in the Berufsausbildungsvorbereitungsbescheinigungsverordnung (Regulations on certification of preparation for vocational training – BAVBVO) and have the following features: They

- teach the basic skills of vocational competence
- qualify the holder to perform activities that are part of recognised vocational training
- have a clear and binding reference to the training framework in the training regulations
- are distinct and time-based learning units
- have a duration of between 140 and 420 hours
- end with a performance assessment and a certificate of competences.[52]

Qualification modules are used in all areas of preparation for vocational training, in schools, out of school and in companies. New qualification modules have been developed continually since the programme was implemented and overall take-up is increasing. They can also be implemented for the target group of young people with learning difficulties or social disadvantages within the framework of pre-vocational training in accordance with § 61 SGB III. The annual average for 2006 shows that according to the Federal Employment Agency, around 92,500 young people benefited from pre-vocational training. However, statistical evidence on how many of these cases constitute preparation for vocational training in accordance with § 68 BBiG is not available.[53]

The approximately 480 modules that are currently registered with the Good Practice Center (GPC) relate to 66 different occupations[54] and may be downloaded, with additional information, from a database at the GPC of the Federal Institute for Vocational Education and Training.[55] The qualification modules that have been set up are run by training providers, vocational schools or companies. The Federal Employment Agency provides funding for the measures. Companies can also apply to the Federal Employment Agency for funding for social and educational support.

The federal government co-initiated and co-promoted the development and deployment of qualification modules as part of the "Competences promotion – Vocational qualification for target groups with special needs" (BQF programme, 2001–2006). They are an essential element of the qualification concept for the less-advantaged[56]. Qualification modules are also part of the six to twelve-month introductory training for young people (EQJ), which aims to enable participants to transfer to dual vocational training, and they form part of vocational qualification schemes for semi- and unskilled adults which offer differentiated pathways towards vocational qualification.

The fact that the modules are geared towards forward-looking employment sectors, practical and relevant learning, and the certification of acquired competences, should motivate young people who fail to cope with vocational training despite special assistance, and people who have passed the usual training age without gaining a qualification. Migrants and young women are a particular target group for crafts. Work experience, combined with a certificate of competence, provides

51 See Seyfried, Brigitte (2003): Berufsausbildungsvorbereitung und Qualifizierungsbausteine, BWP special edition, p. 21–23.

52 Zentralverband des Deutschen Handwerks (ZDH) and Zentralstelle für die Weiterbildung im Handwerk (ZWH) (2006): Wie werden Qualifizierungsbausteine in der Berufsvorbereitung umgesetzt? Evaluationsbericht. Berlin, Düsseldorf, p. 3.

53 See the statistics of the Bundesagentur für Arbeit.

54 As at December 2006, see BMBF (Hrsg.) (2007a), p.202.

55 http://www.good-practice.de/bbigbausteine/.

56 See BMBF (2005s): Berufliche Qualifizierung Jugendlicher mit besonderem Förderbedarf – Benachteiligtenförderung, p. 105–147.

them with endorsement. However, companies only recognise this experience and these certificates in exceptional cases.[57]

A.1.2 Procedures in higher education

A.1.2.1 Access to higher education for qualified workers

The pre-requisite for admission to a university/college or university of applied science is evidence of higher education entrance qualifications. Annually, around 40 % of the German and foreign population resident in Germany obtain an entry qualification at a general or vocational school.[58]

In principle there are four types of higher education entry qualification:

- General certificate of aptitude for higher education, which facilitates admission to a university of applied science (FHS) or university/college in any subject
- Subject-specific certificate of aptitude for higher education,
- General certificate of aptitude for higher education, which facilitates admission to a university of applied science (FHS) in any subject
- Subject-specific certificate of aptitude for higher education.

People with vocational qualifications but without an appropriate entrance qualification from school may be admitted to higher education in two ways, via the second and third educational pathways. The first steps in opening up access were taken in the 1960s and 1970s with the education reforms in Germany that aimed to break down the major barriers to access to education that until then had prevailed, such as gender and origin. Further, the growing significance of informal learning and acquisition of competences on the job – among others – is based on the concepts of equal opportunities and the utilisation of existing potential.

Measured by the number of people qualified for admission via the first educational pathway, university access for those with vocational qualifications represents only a small proportion, making groundless the counter-arguments that have been advanced in the field, such as additional stress for the institutions of higher education or the loss of urgently-needed potential workers. On the other hand however the hopes for a further opening up, that accompany the debate on equivalence of learning forms, have not so far been fulfilled.

The criteria of aptitude for university studies and the actual completion of university studies play an important part in the debate. There are a whole host of studies that, ultimately, arrive at very similar conclusions and counter the objection to the further opening up of access to higher education, that workers without a higher education entrance qualification are not sufficiently capable of university studies. Examinations of indicators of the course of university studies and their conclusions show that students entering from the world of work have no greater difficulties and no verifiably lower results than do other students. However, in view of the high degree of selectiveness in the composition of this group, the results do not support the opposite thesis either, according to which "vocational training and practice, almost as a by-product, automatically bring to the fore the necessary competences to cope with the demands of university studies".[59]

Although there are still far-reaching expectations of opening up access to universities and colleges, actual measures and effects relating to this aim are few. The section below describes both procedures, but only very limited information on their proliferation is available. At the most, statements can be made on their overall significance on

57 See http://www.good-practice.de/bbigbausteine/

58 See Wissenschaftsrat (2004): "Empfehlungen zur Reform des Hochschulzugangs", Berlin.

59 Wolter, Andrä (2003): Formale Studienberechtigung und nonformale Bildung in der Lebensspanne – Das Beispiel der Studienzulassung nicht-traditioneller Studierender, p. 97. In: Straka, Gerald A. (Hrsg.) (2003): Zertifizierung non-formell und informell erworbener beruflicher Kompetenzen, Münster, p. 83–99.

a national basis: The second educational pathway via, for example, evening classes, full-time and part-time adult education centres, examinations for external students and the gifted as well as the third educational pathway, together accounting for 3 % of all first registrations, plays only a marginal role in access to higher education; it is slightly higher for students at universities of applied sciences (5 %) than for those at universities (2 %).[60]

Second educational pathway[61]

Adults with work experience can gain general school certificates constituting an entrance qualification to higher education at a later stage via the second educational pathway, for which the legal foundations are the education-law regulations of the individual Länder. In Germany, the second educational pathway constitutes CET and is therefore classified as non-formal learning since it entails "continuation or resumption of organised learning after completion of a variable length initial training phase".[62]

The qualifications can be obtained in full-time education or during employment. Depending on prior education at school, the objective of the examination (entrance qualification to a university of applied science or university/college) and the intensity of tuition (part- or full-time), the course duration ranges from one to four years The prerequisite for most schools is a completed vocational qualification and/or employment or work experience. The duration of employment required varies from Land to Land; in individual Länder, periods of unemployment or running the family home may also be credited towards these periods. Further pre-requisites for admission to tuition may include a minimum age, knowledge of a second foreign language or passing of an entrance examination.

The examination for non-pupils, also called the external students' examination, is offered in all Länder and is linked to a minimum age, primary residence and evidence of appropriate exam preparation. Adult education establishments offer courses to prepare for the external students' examination.

The examination for the gifted exists in some Länder and gives especially qualified employees the opportunity to acquire the general higher education entrance qualification. Preparation for the examination is independent or with the support of an adult education establishment. The admission requirements vary from Land to Land but, in addition to a completed vocational qualification and a long period of employment, may include a minimum and maximum age for example.

Third educational pathway

The Framework Act for Higher Education (HRG) provides that "persons with vocational qualifications" may provide evidence of qualification for higher educational studies "according to more detailed provisions of Länder law, also by other means" than relevant school education. [63] Higher educational studies without prior acquisition of the general higher education entrance qualification have been possible in all Länder and most study programmes for some years.

In accordance with the independence of the Länder in cultural and educational matters in the area of higher education, there are widely varying procedures which have been summarised by Land for interested parties and the expert audience. [64]

60 Heine, Christoph; Kerst, Christian; Sommer, Dieter (2007): Studienanfänger im Wintersemester 2005/06. Wege zum Studium, Studien- und Hochschulwahl, Situation bei Studienbeginn. HIS: Forum Hochschule (1) 2007, p. 42.

61 Only qualifications associated with a higher education entrance qualification will be covered here, not the other school certificates that are possible via the second educational pathway.

62 Deutscher Bildungsrat (1970), p. 197. Owing to the new perspective on learning and the lack of compatibility between this definition and other countries' understanding of formal and non-formal learning, this classification is being discussed intensively but remains valid in Germany.

63 § 27 Framework Act for Higher Education (HRG); see the Footnote 12

64 www.wege-ins-studium.de and Bundesagentur für Arbeit (Hrsg.) (2006b): Beruf, Bildung, Zukunft. Informationen für Arbeitnehmerinnen und Arbeitnehmer 2006/2007 and Sekretariat der Ständigen Konferenz der KMK, Synoptische Darstellung der in den Ländern bestehenden Möglichkeiten des Hochschulzugangs,

In broad terms, there are three models:

- Higher education entrance examination (aptitude test)
  Applicants for places in higher education must pass a written or oral examination and must justify their wish to study in an interview with a specially-convened examination board, through coherent argument and a convincing personal manner.

- Direct access
  Direct access is when unconditional access to the selected university or college is possible – subject to there being places available – on the basis of a further training qualification (e.g. master craftsman, engineer etc.).

- Probationary studies
  In the case of probationary study, (provisional) admission is granted leading to full admission in the event of successful results after two to four semesters.

At least two of these access options, which are governed in the respective Länder laws on higher education, exist in most Länder, sometimes accompanied by an advisory or aptitude interview.

Depending on the Land, various combinations of requirements may be imposed as pre-requisites over and above these. In addition to a vocational qualification, employment and further vocational training, individual Länder may regulate for example the minimum age, duration of employment and subject guidance differently. A regulation such as in Hamburg however, where homemaking can be counted towards employment, is the exception rather than the rule. Hesse and Lower Saxony provide unrestricted general access to university for master craftsmen. This example and the six-month preparatory course in Bavaria as a pre-requisite for admission to the additional examination highlight the broad range of variation in regulations from Land to Land. The purpose of the procedures is the ascertainment or proof of the candidate's aptitude for study.

status February 2006. The web sites of the competent Länder ministries also contain information.

Generally this applied to subject-restricted access to higher education, or in some Länder even only to subject-restricted admission to a university of applied sciences. As yet, there are no consistent criteria that would place the same requirements on, and give the same opportunities to, anyone wishing to study and increase their mobility.[65]

Lower Saxony has offered the mature students' higher education admission examination, the so-called "Immaturen" or "Z" examination since 1972. More than 20,000 people have since passed this exam. Annually 4–5 % of students on average have been admitted to university/college via this route. The national average shows a considerably lower proportion of less than one percent. Not only do the procedures vary from Land to Land, but their usage also differs substantially: whilst no more than 30 people have applied for the third educational pathway in Bavaria since the law came into force, Berlin sees 250 applications each year, the Department of Business and Politics at the University of Hamburg alone has around 600 applicants and there are 800 to 1000 applicants annually in Lower Saxony. The details of admissions and actual registrations also vary widely from Land to Land with the proportion lying between 20 % and 90 %.[66]

A.1.2.2 Dual study programmes in tertiary education

The opening of the first vocational academies in Mannheim and Stuttgart in 1974 introduced dual study programmes as a new form of training and they have been expanded continually since.[67] Today in addition to offerings from vocational academies, there are dual study programmes offered by universities of applied sciences and, exceptionally also at universities, that are integrated into training, practical experience and work as well as alongside employment.[68]

65 Kloas, Peter-Werner (2002): Zugang zum Studium für beruflich Qualifizierte – ein notwendiger Schritt zur Gleichwertigkeit von allgemeiner und beruflicher Bildung. In: BWP (2) 2002, p. 35.

66 See KMK (2006): Synoptische Darstellung

67 http://www.-abb.com/cawp/seitp202/6875bbcaf948aee1c125717600315ac4.aspx

68 See Bund-Länder-Kommission (BLK) (2003b): Perspektiven für die

Table 8: Access to higher education with vocational qualifications by Land

Land	Entrance examination	Direct access	Probationary studies	Advisory/aptitude interview
Baden-Württemberg	FH/ Uni/ BA			FH/ Uni/ BA
Bavaria			FH	
Berlin			FH/ Uni	
Brandenburg	FH/ Uni		FH/ Uni	
Bremen	FH/ Uni	FH/ Uni	FH/ Uni	FH/ Uni
Hamburg	FH/ Uni			
Hesse	FH/ Uni/ BA	FH/ Uni/ BA		
Mecklenburg-Western Pommerania	FH/ Uni			
Lower Saxony	FH/ Uni/ BA	FH/ Uni/ BA		
North Rhine Westphalia	FH/ Uni	FH		
Rhineland-Palatinate	Uni		FH/ Uni	
Saarland	FH/ Uni/ BA		FH/ Uni/ BA	

BA = vocational academy, FH = university of applied sciences, Uni = university

Source: Bundesagentur für Arbeit (Hrsg.) (2006b): Beruf, Bildung, Zukunft. Der 2. Bildungsweg in den einzelnen Bundesländern. Nachholen von Schulabschlüssen und Studieren ohne Abitur. Informationen für Arbeitnehmerinnen und Arbeitnehmer 2006/2007, p. 11

The students in the training-integrated study programmes have a training contract with a company and study at a university/college at the same time. At the end of their training or study period they obtain both a vocational qualification and a degree. Study programmes that are integrated into practical experience and work combine higher educational studies with part-time work and have the advantage that the student need not give up employment or an existing job in order to pursue university studies. With employment-concurrent study programmes, the company by whom the student is employed provides support by exempting the student from normal duties or providing work opportunities.[69]

Dual study programmes are enjoying increasing popularity. In the Baden-Württemberg vocational academy alone, the number of graduates increased from 660 in 1982 to over 3400 in 1992 and over 5100 in 2002.[70] Nationally there were 666 dual study programmes as at April 2007 with 43,200 students at universities of applied science, vocational academies, academies of public administration and business and some univer-

duale Bildung im tertiären Bereich. Bericht der BLK. Materialien zur Bildungsplanung und Forschungsförderung, Heft 110, Bonn, p. 5.

69 Mucke, Kerstin (2003): Duale Studiengänge an Fachhochschulen. Eine Übersicht. Bundesinstitut für Berufsbildung, Bonn, p. 4 et seq.

70 See. BLK (2003b), p. 72.

sities.[71] This means that, in spring 2007, 2 % of all students were registered in dual study programmes. [72]

In 2003, the Bund-Länder Commission (BLK) highlighted the comprehensive benefits of dual training in tertiary education: students are offered practical learning on the job which they can use to acquire expanded specialist and social competences. Dual study programmes also help to implement the concepts of lifelong learning and transfer opportunities in the German education system. Recruitment of suitable successors to specialists and managers is also easier for the participating companies. [73]

Dual study programmes give increasing significance to competences acquired through practical experience and informal learning processes, help to utilise additional potential and expand the education spectrum. These benefits are echoed in the positive reactions from students and those responsible for education policy. Nevertheless, the BLK still sees clear need for development. For example, dual study programmes hardly exist at all at universities, there is a lack of places and there are shortcomings in the harmonisation of content between the places of learning – universities/colleges or study academies and companies. The status report also highlights prospects and development opportunities particularly in the field of university bachelor's and master's study programmes and continued problems with recognition and credit as well as transfers and transparency.

Pilot programme "Further development of dual study programmes"

Against this background, a pilot programme (running from 01.04.2005 to 31.03.2008) has been set by the BLK up for the purpose of further developing the concept of improved transparency and transfer options between vocational training and tertiary education. The following fields of work and investigation have been defined in the programme:[74]

- Harmonisation of content between the places of learning
- Orientation of the modularisation and credit point systems to the linking of vocational and experiential learning with theoretical learning
- Attention on small and medium-sized enterprises
- Building in of quality assurance (accreditation and evaluation) to structures and procedures
- Broadening of the range of subjects offered in dual study programmes, especially in universities
- Mutual credit and recognition of study and examination outcomes between vocational academies and institutions of higher education
- Quantitative and limited qualitative expansion of the range of study programmes

The pilot programme focuses less on the direct creation of new educational offerings or financial support of courses offered, but more on addressing structural issues (planning costs, monitoring) in the above fields.[75]

The programme is currently providing approx EUR 6 million of federal and Länder funds for 21 projects from ten Länder over three years, with the focus on the development of dual study programmes in previously unrepresented subjects and a tiered structure of studies. In addition, some pilot projects are dedicated to the proving of procedures for crediting vocational qualifications, while other projects deal with procedures for the crediting and recognition of study credits earned

71 AusbildungPlus: Jahresbericht 2007 – Ausführliche Fassung, p. 14, http://www.ausbildungplus.de/presse/download/index.html (access date 20.06.07)

72 Statistisches Bundesamt (2006b), Fachserie 11, Reihe 4.1, Studierende an Hochschulen Wintersemester 2003/2004, Wiesbaden, p. 6.

73 See on this and for the following BLK (2003b).

74 Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung (BLK) (2007): Weiterentwicklung dualer Studienangebote im tertiären Bereich. http://www.blk-info.de/index.php?id=217, version of 23.04.2007.

75 BLK (2007), p. 3.

at different places of learning or work towards the accreditation of dual study programmes.[76]

A.1.2.3 Credit point systems to shorten study periods

The introduction of credit points (ECTS) at German universities (of applied sciences) over the last few years has gradually superseded the previous system of records of achievement.[77] Originally set up to recognise and transfer study credits earned (including abroad), it is now used to accumulate credits and forms the evaluation basis for the new tiered study programmes leading to bachelor's and master's degrees set up within the framework of the EU Bologna process. Apart from the international comparability of credits earned, another advantage of this credit point system is its excellent applicability to the ever growing number of part-time students and its support for lifelong learning.[78] This puts the focus on learning outcomes rather than learning processes.

ECTS points are regulated by the universities and colleges in the respective examination regulations (§§ 15, 16, 19 HRG). Calculation of the requisite work is on the basis of the total time taken for the higher educational studies and, in addition to attending lectures and seminars, also includes preparation time and self-study. ECTS points are assigned to all components of a study programme (modules, courses, work placements, thesis). They can also relate to learning outcomes that have been acquired informally (Bologna Declaration 1999). However this presupposes that they are recognised by the host institutions.

A credit point system offers a whole host of advantages: the modular approach and award of credit points increase both the transparency and the flexibility of the syllabus and curriculum. For example, institutions of higher education can react more quickly to market requirements or students can adapt their curriculum to their own time constraints. Credit point systems also provide better conditions for part-time study and thereby allow the study period to be shortened, for example by crediting competences acquired outside the university/college.[79]

Appropriate credit procedures are currently being piloted as part of the federal government initiative "Credit of vocational competences towards higher education study programmes (ANKOM)" in eleven regional development projects (see section A 3.4) and at the same time have already been put into practice in individual institutions of higher education or study programmes. For example, the MBA programme in "Higher Education Management" at Bremen University of applied sciences and Osnabrück university of applied sciences carries an award of 120 credit points, half of which can be obtained on the basis of recognition of "relevant competences acquired elsewhere in previous study".[80] The Charité Berlin, in association with the Hogeschool Zuyd in Heerlen, The Netherlands, offers a Bachelor of Nursing which provides for the standard study period of four years to be accelerated depending on students' work experience and level of skills.[81] Another model for recognition of skills acquired outside higher education has been operated since 2004 by the Evangelical University of Applied Sciences Hanover (EFH) with its two-tier bachelor programme for teacher training in the care sector and healthcare professions. In the first tier of this programme, students will undertake standard three-year training in nursing, geriatric nursing or paediatric nursing at one of the nine establish-

76 See http://www.uni-protokolle.de/nachrichten/id/113230/(access date 20.06.07)

77 The European Credit Transfer System was introduced in 1989 as part of the ERASMUS European student exchange system and defined in the 1999 Bologna Declaration as a key instrument for achieving maximum mobility for students. Since then, it has gradually become established in European – and hence German – institutions of higher education.

78 See also on this and for the following Hochschulrektorenkonferenz (Hrsg.) **(2006): Bologna-Reader. Texte und Hilfestellungen zur Umsetzung der Ziele des Bologna-Prozesses an deutschen Hochschulen, Bonn.**

79 See HRK (2006), p. 143 et seq.

80 See Füssel, Hans-Peter; Moewes, Malte; Ziegele, Frank (2006): Die Studiengänge im Überblick. In: Stifterverband für die Deutsche Wissenschaft: Qualifizierung für Hochschulprofessionen. Neue Studiengänge in Deutschland. Positionen, Januar 2006, Essen, p. 14.

81 Charité Universitätsmedizin Berlin (2006): Hoogeschool Zuyd: Bachelor of Nursing für Quereinsteiger. Brochure March 2006, Berlin.

ments co-operating with the EFH and at the same time take three university modules. If both the training and the modules are completed successfully, 90 credit points are awarded and the student transfers to the second tier of the programme.[82] These examples show that, in principle, the credit point system facilitates the recognition in higher education of competences that have been acquired informally. As yet there is no reliable information on the extent to which this procedure is actually used and the advantages and drawbacks for participants, both universities/colleges and students.

82 vgl. http://www.hrk.de/bologna/de/download/dateien/AG_6_Oelke_-_Pflegelehrerausbildung__1.06.pdf.

A.2 Steps and programmes to prepare for recognition

Besides procedures aimed at formal recognition and those that are appreciated in the labour market, steps are also being undertaken in Germany to promote lifelong learning. These steps, with their theoretical foundation and simultaneous practical approach, are preparing the ground for a changed learning and recognition culture. They are providing essential preliminary work with the long-term aim of achieving recognition of competences acquired by non-formal and informal routes. Four measures will here be held up as exemplary, that are in the interests of education policy and as such have been (co-)initiated by and received long-term funding from the BMBF.[83]

- Many projects in the Learning Culture for Competence Development programme have helped improve the outlook for the various learning environments and methods. A new aspect of the conceptual debate was the practical and independent basis for competences.

- The ProfilPASS system comprising a tool and attendant guidance provides a concrete way of ascertaining and reviewing competences acquired via different routes in both private and working life. Established below political level, it aims to raise self-awareness, to contribute to motivation and capacity for dialogue and to underpin the achievement of goals and reorientation.

- The DFG priority programme "Competences models for recording individual learning outcomes and for reviewing educational processes", comprising a whole host of projects, is being launched this year to probe and crystallise the field of competences measurement.

- Concrete examples of the recognition of competences and qualifications acquired on the job as study equivalents will be developed and piloted as part of the "Credit of vocational competences towards higher education study programmes" initiative (ANKOM).

A.2.1 Learning Culture for Competence Development (LKKE) programme

Objectives of the programme

The aim of the programme was primarily to construct efficient and continuous learning structures with consideration of competition, local requirements and competence development of employable people. The promotion of learning in the work place played a vital role in this. Strengthening individual professional competences, complex strategies for maintaining competence and competence development for unemployed people, as well as e-learning and new learning concepts (including service provision learning concepts) in further education establishments were all equally a part of the LKKE research and development programme. It could be classified into programme areas: Basic research (Grufo), learning while working (LiPA), learning in the social environment (LisU), learning in further education establishments (LiWE), learning on the Net and with multimedia (LiNE) as well as various accompanying functions (e.g. International Monitoring, Graduate Network, Works Councils' Networks, Regional Learning Cultures in Mecklenburg-Vorpommern, effects of wage agreements with respect to qualification, formative process guidance).

Development focuses:

All programme elements had as their basis so-called "guidelines", which at the end were to bundle the findings and concrete results of the different programme elements For all programme elements this primarily concerned self-organisation and/or self-monitoring of the learning processes (in particular the informal/non-formal), competence measurement procedures and evidence and the building of learning structures and networking. Other priorities arose from particular features of the individual programme areas:

83 An extensive collection of good practice examples from the Federal Government and the Länder is compiled in "Anhang 5 zur Strategie für Lebenslanges Lernen in der Bundesrepublik Deutschland", available at: http://www.blk-info.de/fileadmin/BLK-Materialien/dietsche05_01.pdf

"On-the-job learning" (LiPA)

Company learning cultures and competence development, primarily informal and non-formal learning processes were to be researched and described. The resources which contribute to the innovative capability of companies were to be determined and the appropriate staff, organisational and competence development models developed, in order to acknowledge necessary changes in companies and evolve practical solutions while overall establishing a learning culture appropriate to the changing requirements of learning needs of people and contributing to the efficiency of the companies.

"Learning in a social environment" (LiSU)

Maintenance and development of competences in the social environment was the main objective of this element of the programme. This included amongst others association work, family work and learning processes, which happened in a variety of informal/non-formal ways outside employment. The target group were people in their activities outside their employment, as well as the unemployed, and the maintenance and further development of their competences. Regional learning agencies for a setting up a learning and commercial structure (for example for self-employed activities) were to be built up and established in different regions of the old and new federal states. Third-party skills were used in connection with this for consultation, mediation and network moderation.

"Learning in CET institutions" (LiWE)

The main aim of this part was the investigation, analysis and testing of options for self-organised learning in externally-organised learning environments during change in vocational learning. The second priority was the development of learning service provision concepts by CET providers and establishments, who support self-organised learning and competence development as a specific contribution within a new – yet to be established – learning culture.

"Learning on the Net and with multimedia"

The main aim here was to develop new forms of learning using electronic information and communication media as part of the overall LKKE programme and to render this usable to all other parts of the programme. This concerned in particular the combination of various network-supported forms of learning.

"Accompanying projects"

The programme elements were supported by wide basic research. This concerned the creation of the theoretical foundations and answers to questions such as for example: What denotes a learning culture, what are competences and how can they be measured, can they be networked. The theoretical basis for the programme elements had to be finalised in order to be able to convert them into practical application models. Ascertaining and representing individual competences, team competences and answering questions such as for example: What constitutes the uniqueness of companies and how can this be recorded; how can human capital be calculated – these among other things made up the constituents of the basic research.

Additional projects accompanied the programme elements and rounded them off. Included were the collective agreement partners with investigations into further company training, and young scientists, who researched individual subject areas to complete the programme, as well as projects which played a consultative role in the overall process and checked the findings for applicability.

Selected findings and results from the LKKE programme:

- An abundance of new Human Resources and organisation development models were developed and tested that were tailor-made to the companies taking part in the programme (in Best Practice companies, in start ups and in innovative medium-sized companies). Thus in new companies it was possible to achieve a new or changed company learning culture which became permanently established, the staff grew more efficient and the companies

confirmed that they could operate more cost-effectively.

- Competence development models in cross-cultural teams were explored. The results produced cross-cultural learning materials for specific target groups for teaching the dimensions of cultural difference Cross-cultural basic workshops and training for managerial staff and employees were carried out and documented and orientation models for effective cooperation or joint learning were compiled.

- With the available various collective learning models younger and older people in a company now have available a kit, which is also transferable to non-participating companies for their use.

- For promotion of learning in the work place a learning promotion index was compiled, which can be used in a range of companies (and in the interim also by non-participants in the programme). This is not self-explanatory, so individual companies will require external consultancy or assistance. A quantitative procedure for analysing the degree of learning promotion in the work place has therefore been made available.

- Learning guidance models and learning services for companies were developed and tried out.

- Individual options for mentoring and support for business start-ups (procedural methods) were compiled and are available as guidelines or instructions for action.

- A tool for assessing needs and measuring success on the basis of Goal Attainment Scaling was developed and tested in practice on projects of cross-cultural collective learning in companies.

- Using the Kassel Competency Framework it is possible to optimise professional action competence, in particular with respect to solving problems in team learning and to improve management assessment capability.

- Evidence of competence helps companies when it comes to personnel selection and applicants who have acquired additional competences through activities in the social environment.

- With the learning culture check list for small and medium-sized enterprises it is possible to quickly establish deficits in the Human Resources area of these enterprises and make the operating partners aware of the actions required.

- Regional learning agencies were set up who through intermediaries linked the development of learning culture with economic and social development and initiated, activated and advanced the processes.

- With the Internet-supported Toolbox (www.invent-net.de) a novel package of solution tools was provided, primarily suited to a strategic or innovative way of looking at problems in small and medium-sized companies

A multitude of other findings, practical instructions for action and guidelines, measuring and evaluation tools are available. With the help of the Association for Research in Professional Development in Berlin (Arbeitsgemeinschaft Betriebliche Weiterbildungsforschung e.V. – ABWF) and the administration and mentoring of more than 250 individual projects by the Project Qualification Development Management, (QUEM) Berlin, at the end of the programme the necessary findings and practical applicable tools on which to build up research and development will be available. In the new programme “Work, learn and develop competences – innovative capabilities in a modern working world” begun in 2007, and again in the already up-and-running programme “Innovation and services” – embedded within the framework of the high-tech strategy of the Federal Government – both company and external to company needs for continuing education, and the processes for developing competences, are debated further with the setting of new priorities.

All the material produced during performance of the LKKE programme can be accessed by anyone on the ABWF Internet site at www.abwf.de.

LKKE was financed with funds of around 100 million EUR from the Federal Government and the European Social Fund between 2001 and 2007.

A.2.2 The ProfilPASS system

Social/education-policy background

While at the turn of the century it was possible to ascertain an increasing degree of formal recognition of informally acquired competences in educational policy and practice in European countries, it was stated that in Germany there was a need to gain ground in practical terms in the area of recognition of informally acquired competences.[84] This is the background against which the BLK collaborative project "Lifelong learning passport with certification of informal learning" was set up in 2002.

Objectives

The ProfilPASS system is used to ascertain and document your own abilities and competences in a systematic way. The concomitant preparation of an individual competences record raises individual self-awareness and enables users to enter into a dialogue with themselves and others. Insofar as it is motivating to take steps to get to grips with the competences used and to foster awareness of personal strengths, it is also an incentive and stimulus for lifelong learning, for example with a view to preparing for (re-)entry into working life, a professional or personal (change of) direction or planning future learning projects.

Content

The ProfilPASS system comprises the "ProfilPASS" tool and a guidance concept geared to it, based on the humanist concept of mankind, the learning ideas of constructivism and the biographical approach. It aids consideration, recording and design of the individual's training, learning and work biography. The central element for users is the struggle with their own biography and it is recommended that they should obtain support in this process in the form of qualified guidance/advice. The advisers are trained in the guidance work in a two-day preparatory seminar, of which the main thrust is the methodology of recording competences. These seminars are run by specially-qualified disseminators who are generally based in "dialogue centres" for the dissemination of the ProfilPASS system. The activities are co-ordinated by a national ProfilPASS service centre based at DIE (German Development Institute).

Method

The aim of the ProfilPASS process is to visualise and document the individual's capabilities and competences. To do this users must firstly become aware of their competences through self-reflection and only then are they able to communicate with both themselves and others, apply themselves with purpose and develop themselves further. In so doing the focus is on their own actions in all areas of life, from education to working life right through to work at home and in the family, hobbies, honorary positions and voluntary commitments. At the heart of the process is the detailed analysis of activities. To do this, the individual's own activities are scrutinised and described in detail. The task of the advisers or group partners is to enquire how during a narrative interview a story line can be developed. At the next stage the capabilities, skills and competences which are going to be used are then derived from these activities. The conversion process required seems at first difficult. By a breaking down the description of activities however and with increasing experience it becomes easier for the user to be able to become aware of their capabilities and competences. Their evaluation takes part using a four-stage scale which is orientated toward the frame of reference for the European Language Portfolio. A differentiation is made between guided and independent actions in familiar and unfamiliar contexts. The qualitative step is the transferability of competences i.e. the possibility of still being able to apply a competence even in unfamiliar contexts and

84 See Björnavold, Jens (2000): Making learning visible: identification, assessment and recognition of non-formal learning in Europe. Thessaloniki; Bretschneider, Markus (2004): Non-formales und informelles Lernen im Spiegel bildungspolitischer Dokumente der Europäischen Union, Bonn, available at http://www.die-bonn.de/esprid/dokumente/doc-2004/bretschneider04_01.pdf - 04.06.2007.

even possible ways in which to be able to explain others.

On the basis of this analysis in the steps "name", "describe", "summarise" and "evaluate" a competences record is created that can be used as a basis for presenting the person, typically in application situations, and to develop competences further. As a tool without a predefined outcome, the ProfilPASS does not include lists of capabilities and competences however, the aim being rather more that each person describes his own capabilities and competences in his own words and does not resort to previously formulated concepts. Tying in with the individual competences record is the formulation of goals and an action plan to ensure continuity of the life biography. At the same time in the stage prior to target setting, dreams, ideas and competences are initially linked together, initial aims formulated and checked for consistency. Only after this does the process of making the goals concrete occur – in order to avoid disappointment – together with the clarification of possible hindrances and the search for solutions The next steps are then planned for a manageable time period. Ideally the users will be supervised by qualified advisers in the individual phases. The foundation for the practical implementation is a guidance concept which includes a guidance process model specified as a process standard.

Players and co-operations involved

The ProfilPASS system developed by DIE, DIPF and IES was initially subject to a pilot and evaluation with selected co-operation partners. The evaluation results formed the basis for optimising the approach. A national network has been built up in the last few years for the further implementation of the concept, which is co-ordinated centrally by a national service centre and works with the dialogue centres, of which there are currently 30, to raise awareness locally of the visualisation and documentation of informal learning. These are individual educational establishments of excellent regional standing or networks of educational establishments. Specially-qualified disseminators who implement the qualification of advisers are generally based at the dialogue centres.

Implementation and dissemination

To date over 1000 advisers have qualified under the project and nationwide have deployed some 15,000 ProfilPASSes.

Evaluation

The quantitative and qualitative evaluation of the pilot made it clear that the ProfilPASS system helps raise individual self-awareness and is motivational for lifelong learning. It was also clear that support guidance for users is crucial to the success of this process. The principle of deploying the procedure across target groups, which was recommended in the feasibility study, has been largely achieved. People at a crossroads in their life or career find this procedure particularly beneficial. However, it also transpired that the more cognitive access to the tool for the "young people" target group is problematic. The "ProfilPASS for young people" was hence developed which, following a pilot, evaluation and optimisation, has been available nationally since May 2007 and is currently being rolled out as a target group-specific supplement to the ProfilPASS system.

Challenges

The project activities in the last five years have highlighted many implementation scenarios and just as many target groups, which now makes it difficult to maintain an overview. In light of the emergence of a ProfilPASS community in which those involved can directly share information and offer each other advice, creating transparency across the various deployment scenarios will be one of the key challenges in the future. Furthermore, an implementation concept for the ProfilPASS for young people as an upstream and connectable ProfilPASS instrument must be developed and implemented. In light of supranational developments, the implementation of an EQF/DQR for the further development of the ProfilPASS system, especially for evaluating abilities and competences, is also a relevant point of reference.

Contracting (and financing) authority, contractor/ project management agency

Funded by the ESF and the BMBF, a consortium of the DIE, DIPF and IES was initially commissioned to carry out research into the academically-justified evaluation of the options to introduce a lifelong learning passport, taking particular account of competences acquired by informal means. This consortium developed the ProfilPASS system based on the recommendations formulated therein.

Links

Information for users and advisers can be found on the Internet at http://www.profilpass.de. Further information can be obtained from the ProfilPASS service centre and locally at the dialogue centres.

Quality criteria for a "Certificate of competences"

With the aim of giving users and advisers direction in the further education pass environment, to ensure the quality of reliable procedures for determining competence and to lay down quality criteria in this respect, the working group "Quality Criteria for a Certificate of competences" was formed in which a multitude of pass initiatives are portrayed. The working group operates in terms of a cooperative exchange and voluntary self-declaration and at present is working on the differentiation of objectives and a discussion on the contents of the criteria grid.

In the last few years a heterogeneous pass environment has emerged in Germany. All these tools are established at political level, many being aimed at individual target groups while others cover individual functional areas:

- Careers advice pass (pupils)
- Competence management CH-Q (young people and adults), Switzerland
- Certificate of competences (young people and cultural education for young people)
- Certificate of competences in learning in the social environment (voluntary work)
- ProfilPASS (young people and adults)
- Qualipass (young people)

All of these pass initiatives are aimed at strengthening individuals by directing them towards awareness of their actions and acquisition of competence including through informal learning methods.

A.2.3 Competence models

In 2006, the German Research Foundation (DFG) resolved to launch the six-year priority programme "Competence models for recording individual learning outcomes and for reviewing educational processes"[85]. It is planned to fund over 20 individual empirical educational research projects geared to recording competences from theoretical and methodical perspectives. The individual research projects will be launched in the autumn of 2007.

Academic and education-policy framework

The education-policy grounds for the priority programme were mainly the weakness of the German education system highlighted in international studies and the continuing trend in education policy, resulting from the publication of the PISA 2000 study, to increasingly use comparative performance studies and competence measurements to improve steering decisions in the education system. From an academic perspective, the applicants stressed the challenges on a discerning academic foundation for measurement tools, models and competence structures, with the goal of achieving a new quality for the measurement of learning conditions and outcomes. In particular, the advances in psychometric measurement procedures, the preliminary work in connection with the international large-scale assessment in

85 See Klieme, Eckhard; Leutner, Detlev (2006): Kompetenzmodelle zur Erfassung individueller Lernergebnisse und zur Bilanzierung von Bildungsprozessen. Revised version of the application to the DFG to launch a priority programme.

schools and the existence of new technologies evidently create much better conditions for valid measurement and diagnostics of competences. The expectation of the programme as a whole is that improved competence diagnostics will improve the quality of the individual educational processes and educational and policy decisions.

Objectives of the programme

The objectives of the "Competences models for recording individual learning outcomes and for reviewing educational processes" programme as a whole are structured in four key areas[86]:

- How can a reasonable cognitive model of competence be created, taking account of their reference to requirements in specific situations?
- How can theoretical competence models be included in psychometric models to make the competence constructs amenable to differentiated registration?
- How can competence models and psychometric models based on them be transferred into concrete, empirical measurement procedures?
- What type of information from competence measurements can be used by players in education and in what ways?

The objectives of the research projects represent a significant connection in respect of the recognition of non-formal and informal learning. The development of valid measurement procedures in competence recording and diagnostics will admittedly be substantially geared to educational decisions in schools but will also facilitate more in-depth approaches in the academic debate on competence levels.[87]

Contracting authority and project management agency

Individual projects will be awarded as part of the priority programme. An initial overview of the projects authorised to date, the players involved and the co-operations can be found on the project web site www.kompetenzdiagnostik.de. The research projects in the DFG priority programme will be co-ordinated by Prof. Klieme (German Institute for International Educational Research) and Prof. Leutner (University of Essen).

Promoting institutions are the German Research Foundation (DFG) and the Federal Ministry of Education and Research (BMBF).

Links

www.kompetenzdiagnostik.de

A.2.4 ANKOM – Credit of vocational competences towards higher education study programmes

Social and education-policy background

The basis for the Federal Ministry of Education and Research's "Credit of vocational competences towards higher education study programmes" initiative (ANKOM) is the acknowledgement that a dynamic and globally-oriented economy is continually developing new requirements for executives while at the same time, German universities are producing too few qualified graduates. The Federal Government is acknowledging this situation with the ANKOM project, in which by regional projects the development of framework conditions and concrete procedures for crediting learning performance on study programmes is supported. Furthermore there are efforts towards development of a reference framework for crediting vocational competences towards higher education admissions and the development of recommended action plans for institutions of higher education, for education and educational policies.

This development is essentially being driven by the Bologna and Copenhagen process, the

86 Klieme, Eckhard; Leutner, Detlev (2006): p. 6 et seq.

87 See section B.3 on the development of the German qualification framework (DQR).

goal of which is mutual recognition of credits earned and further vocational training. This trend has been tackled at national level by means of further education-policy recommendations and resolutions. For example, in 2002 the Standing Conference of Ministers of Education and Cultural Affairs (KMK) passed a resolution that knowledge and competences acquired outside higher education can be credited towards higher educational studies if they are of equivalent content and level to the part of studies to be replaced and if they are verified within the framework of accreditation.[88] The implementation of this resolution is the responsibility of the respective institutions of higher education. A joint recommendation by the BMBF, KMK and HRK in 2003 endorses the award of ECTS credit points in further vocational training which can then be credited on admission to higher educational studies.[89]

Objectives and content

The overriding purpose of the ANKOM initiative is to increase access to, and transfer opportunities within, educational pathways. The way should be cleared for transfers between educational establishments and existing qualifications and competences acquired in different contexts should be taken into account. Methods to facilitate the recognition in higher education study programmes of competences that people with vocational training have acquired in training and CET and at work and that are equivalent to the performance requirements of the respective study programme are being developed and trialled in eleven regional development projects.[90]

In an initial project phase, for example, proven qualifications and competences are identified as study equivalents that can be credited towards bachelor's or master's study programmes. In a second step, the projects need to build on this to develop transferable credit procedures and tools. The focus is on qualifications and competences acquired in the vocational training and CET system i.e. formal and non-formal routes. Moreover, competences learned by informal means, for example at work, should also be included and reviewed for their capacity to be verified and credited.[91] Individual procedures already find application as models in institutions of higher education. No statement can yet be made as to how widespread this is. In addition to the procedures developed within the project themselves, aimed towards credit for learning outside institutions of higher education, the evaluation that accompanies the process plays an important role in ensuring the quality of procedures, their circulation and acceptance.

Players involved

The eleven regional development projects are based at nine universities (Lüneburg, Oldenburg, Berlin, Hanover, Brunswick, Bielefeld, Duisburg-Essen, Illmenau and Darmstadt) and one Chamber of Commerce and Industry training centre (Stralsund) and are focusing on engineering sciences, information technology, health, and social and business sciences. Credit procedures and tools for the recognition of knowledge acquired outside the university are generally being developed and piloted in these subject areas in conjunction with partners in further vocational training.

A committee, in which the relevant BMBF players, the trade unions (DGB and IGM), the University Rectors' Conference (HRK), the German Industry Board for Vocational Training (KWB) and the Federal Institute for Vocational Education and Training (BiBB) are represented, has been set up to provide specialist support to the initiative.

88 Kultusministerkonferenz (KMK) (2002): Anrechnung von außerhalb des Hochschulwesens erworbenen Kenntnissen und Fähigkeiten auf ein Hochschulstudium. Beschluss der Kultusministerkonferenz vom 28.06.2002. http://www.kmk.org/doc/beschl/anrechnung.pdf.

89 Gemeinsame Empfehlung 2003 des BMBF, der KMK und der HRK an die Hochschulen zur Vergabe von Leistungspunkten in der beruflichen Fortbildung und Anrechnung auf ein Hochschulstudium vom 26. September 2003.

90 See BMBF (2005c): Richtlinien für die Förderung von Initiativen chnung beruflicher Kompetenzen auf Hochschulzugänge" of 14 January 2005.

91 http://ankom.his.de/modellprojekte/index.php.

Academic support

The academic support for the project is being provided by the Higher Education Information System (HIS), Hanover in conjunction with VDI/VDE/IT, Berlin The evaluation team sees its role as the provision of guidance and process support, promoting academic discourse between the individual subprojects on credit procedures and credit-related fields and the inclusion of relevant projects and experts, building trust between the institutions involved and public relations.

The goals of the academic support are also to develop an overall frame of reference for the credit of competences acquired at work and informally towards higher education study programmes which will be equivalent to the quality standards in higher education and to develop recommended actions for institutions of higher education for vocational and academic training and education policy.

Challenges

The feature of the procedure to credit non-university learning outcomes towards examination outcomes is that it basically focuses on the knowledge, ability and competences of graduates and that the time, place and context of the credits earned become less important – and hence competence-based methods of establishing performance, rather than methods based on learning requirements, are being introduced into the academic sector. The particular challenges lie, on the one hand, in identifying equivalences and appropriate determination procedures and piloting them in practice. On the other hand, the mental barriers that inevitably exist between vocational and university education and their representatives as a result of the different responsibilities need to be overcome. In particular, the institutions of higher education fear that quality will be impaired by the connection with vocational training.

Contracting authority and project management agency

The initiative as a whole is being funded by the European Social Fund and the BMBF. The project management agency is the Federal Institute for Vocational Education and Training (BiBB).

A.3 Recognition procedures in the employment system

Processes have come into effect in the employment system, which unlike the procedures described earlier are only partially legally regulated, that do appreciate or recognise informal learning. This applies particularly when companies accord certified qualifications and skills only limited significance in staff selection and are unable to recruit sufficient junior staff from formal and non-formal educational pathways.

Work experience, and hence learning on the job, is also appreciated in companies. It is a key factor in employability and job security but can also lead to promotion through the extended transfer of responsibilities, and may also be manifested in monetary terms in the form of pay. Recognition and evaluation of skills acquired non-formally and informally are often based on collectively agreed settlements; standard tools used in the employment system are staff appraisals and employer's references as well as assessment procedures, analyses of potential and profiling.

The significance of informally-acquired skills in the employment system is highlighted not least among people working in apprenticeship trades who have not completed the specific vocational training for the trade, or indeed any vocational training at all. By international standards, the proportion of employees without, or with no known, vocational training in Germany is relatively low. Nevertheless behind the numbers are a large number of employees who have acquired job-relevant skills, knowledge and abilities either informally on the job, or non-formally in courses. On the whole, outside their employing company these employees do not experience any of the appreciation that would mean greater employment possibilities on the labour market. Relative to the employment system as a whole, their semi-skilled work status must therefore be deemed precarious.

In order to achieve occupational mobility, i.e. the transfer of skills, knowledge and abilities acquired on the job to a different company or even industry, these employees are dependent on existing recognition mechanisms such as the external students' examination in an occupation regulated by law (see section A.1.1.1). However, since job descriptions are defined by operational requirements and do not generally exactly match occupational profiles, employees taking the vocational qualification later need to dedicate a lot of time to prepare for the examination, and companies need to offer them plenty of support to achieve their goal. It should be assumed that the option of taking partial qualifications will make it easier for employees to start and continue working towards this goal, that this will lead to greater participation in CET by these employees and an increased number of examination candidates taking the vocational qualification at a later stage and, consequently, will secure their employability and occupational mobility.

The table below uses Federal Employment Agency figures to show, for example, the number of people working in selected occupations with no, or with no known, training.

As can be seen in the next section, the collective agreements in some industries already reflect steps to place informally and non-formally developed competence and qualification profiles on the same footing as the regulatory level of the Vocational Training Act and the Crafts Code, in order to counter the disadvantages of development options based solely on work experience and to facilitate access to jobs and entry to continuing education and training.

A.3.1 Recognition by means of collective agreements

In order to grant more legal security to employees in recognised apprenticeship trades who rely on the qualifications and skills they have acquired by informal and non-formal learning, the management and labour in some sectors and occupational groups have set out appropriate provisions in the collective agreements.[92] The codification recorded

92 The WSI index of collective agreements in the Hans-Böckler-Stiftung (enquiry of 22.05.2007) provides information for a number of sectors/occupational groups as examples on how and to what extent competences acquired by informal and non-formal means are given political recognition in collective agreement pay ar-

Table 9: Examples of BbiG/HwO occupations with total number of employees by gender[93] (as at 2005) and proportions of employees with no, or with no known, vocational training (as at 2003/2004)

	Total (in '000s)	Male (in '000s)	Female (in '000s)	no vocational training	Vocational training unknown
Skilled/assistant office worker	4,328	1,134	3,194	6 %	11 %
Chemical workers	164	134	31	29 %	6 %
Printer	148	107	41	16 %	11 %
Electrical occupations	765	722	43	12 %	6 %
Butcher	109	99	11	7 %	12 %
Gardener, garden worker	376	233	143	25 %	19 %
Hotels, catering and pubs	776	282	494	9 %	21 %
Cleaner/window cleaner	1,158	208	950	26 %	41 %
Domestic occupations	314	17	297	32 %	22 %
Woodwork, carpentry and related occupations	49	41	8	40 %	9 %
Ceramic worker	18	11	6	47 %	5 %
Chef	497	215	282	26 %	31 %
Leather goods manufacturer, leatherworker and furrier	37	25	12	30 %	11 %
Aviation occupations	489	479	10	14 %	16 %
Painter, varnisher and related occupations	294	279	16	12 %	10 %
Papermaker and processor	41	32	9	38 %	9 %
Interior decorator, upholsterer	66	51	15	18 %	15 %
Social worker, care worker	255	85	170	9 %	9 %

rangements and qualification regulations by their classification in them.

93 Sources: http://www.destatis.de/jetspeed/portal/cms/sites/destatis/DE/Content/Publikationen/Querschnittsveröffentlichungen/Statistisches Jahrbuch/Downloads/Arbeitsmarkt.property=file.pdf, percentages: http://www.kursnet-online.arbeitsagentur.de/bbz/hefte/.

in them places work experience on the same footing as vocational qualifications and counts it, suitably modified, towards the determination of pay.

The industries considered in the examples, of wholesale and international trade, mining, the metalwork and electrical industry, the chemical industry, construction, and public sector administration show an understanding of the homogeneous nature of places of learning and the equivalence of learning outcomes. This facilitates inter-company recognition of qualifications and competences, and enables from the companies' perspective the best possible allocation, and from the employees' perspective appropriate pay. In principle, the possibility of later qualification as extended access to the labour market also exists (see section A.1.1.1).

The legal background for recognition of employees' skills and qualifications in collective agreements is article 9 section 3 of the Basic Law, in which freedom of association is defined as a fundamental right, and the Collective Agreements Act, under which the principle of autonomy of collective bargaining prevails in the economy of the Federal Republic of Germany. Pursuant to these, employers and employees are free to agree the working conditions in companies with no regulatory intervention by the state. In addition to defining pay and working hours, this includes arrangements for training and continuing education.

The agreements made on the equivalence of informal learning and formal qualifications over the entire spectrum of qualifications acquired and the positions in the company envisaged for them can be illustrated by means of a few examples.

The first example relates to the agreements already made in the salary agreement of 14 March 1980 for the collective bargaining association of the allied North-Rhine Westphalia wholesale and international trade organisation, that requires no vocational training for employees in salary group I for the "performance of predominantly schematic or mechanical activities".[94] The two years' relevant training associated with the second salary group can also be substituted with knowledge and skills proven by at least two and a half years' practical experience. The same applies to the subsequent salary groups.

The situation of the second example, in which work experience is placed on an equal footing with BBiG or HwO occupations, applies almost universally in the lower salary groups of all sectors. In the construction industry this is linked with the idea of the minimum wage. For example, the allocation under the collective agreement for salary group I (worker, plant operator) requires no standard qualifications and for salary group II (skilled worker, machinist, driver), equivalent qualifications acquired in some other way are used in addition to formal qualifications with standard content.[95]

In the "collective agreement remuneration framework (ERA-TV)"[96] of the metal and electrical industry in Baden-Württemberg, the classification under the collective agreement relates to the duties of the job. Under this, it is immaterial how the necessary skills, knowledge and abilities were acquired. Instead, key competences are recorded in five assessment levels: efficiency, quality, flexibility, responsible behaviour, co-operation and leadership.

In the definition of collectively agreed pay in the chemical industry in the individual Länder,[97] performance appraisal is based on classification according to a "work evaluation method" which directly links a job performed with available qualifications and experience. Above all a distinction

94 See Gehaltsrahmenabkommen für die Angestellten des Groß und Außenhandels in Nordrhein-Westfalen of 14 March 1980, available at http://www.rechtsrat.ws/tarif/gahandelnrw/gehaltsrahmen.htm.

95 See Regelung der Mindestlöhne im Baugewerbe im Gebiet der Bundesrepublik Deutschland (TV Mindestlohn) of 29 July 2005, available at http://www.gesetze-im-internet.de/bundesrecht/tv-mindestlohn_2005/gesamt.pdf.

96 "Entgeltrahmen-Tarifvertrag (ERA-TV)" of 16 September 2003 between the Verband der Metall- und Elektroindustrie Baden-Württemberg e.V. – Südwestmetall – and IG-Metall Baden-Württemberg region, Baden-Württemberg regional management

97 "Bundesentgelttarifvertrag für die Chemische Industrie West vom 18. Juli 1987, in der Fassung vom 30. September 2004"

is drawn between the necessary periods of instruction, induction, work or company experience and the necessary skills, specialist knowledge and assessment of the claimed level of the respective area of application[98]. It states very specifically that the vocational training required for the activities in the individual pay groups can "universally be substituted with comparable knowledge and skills acquired at work". Even in further training occupations, i.e. foremen in a master craftsman's position, technicians and engineers, the vocational training can be replaced by "appropriate work experience".

There is also a very broad-ranging arrangement in public sector administration in which promotion or receipt of a pay group bonus or a bonus after a specific period of probation or work is envisaged in the pay regulations for employees according to the features of the job[99]. This means that better positions and income are possible on the basis of work experience and length of service.

The cited examples from the employment system illustrate the many ways in which not only the formal educational pathways, qualifications and certificates required for a job and a particular salary can be codified at collective agreement level, but also how skills acquired non-formally and informally can be evaluated and put on the same footing. For companies, this offers the potential to increase the qualification level of its staff, which is of particular relevance if the employees' skills based on work experience are accompanied by internal or external CET measures.

98 See http://www.basisbetriebsraete.de/Infothek/igbce/BETVmErlaeterungen.pdf

99 COLLECTIVE AGREEMENT FOR FEDERAL EMPLOYEES (BAT)of 23 February 1961, last amended by the 77th amendment collective agreement of 29 October 2001 and the EuroTV of 30 October 2001 Collective Agreement to Amend the Umbrella Collective Regulations under Collective Agreement Law (BAT-O) of 10 December 1990 in the version of the amendment collective agreement no. 12 of 29 October 2001 and the EuroTV of 30 October 2001. This part of the collectively agreed pay affecting promotion after probation, i.e. § 23 (classification in special cases) is currently still under negotiation by the parties relating to pay classification in the TVöD (public sector collective agreement).

There are to date no research results on the extent to which the equivalence of formal qualifications and learning outcomes acquired via informal and non-formal routes is reflected in the employment system. However, these will be critical for the classification and evaluation of procedures governed by collective agreements and their potential.

In order to improve for those affected the recognition of skills based on work experience in the employment and education system, and hence facilitate mobility for the employees in a sector, competences documentation should be introduced containing the accepted interpretation as part of the inter-company agreements of the collective agreement partners. Furthermore, training regimes and external examinations in the education and training system must be regulated by law such that they promote process orientation, including by means of the option of partial qualifications, and hence take better account of and give more credit to the result of non-formal and informal learning.

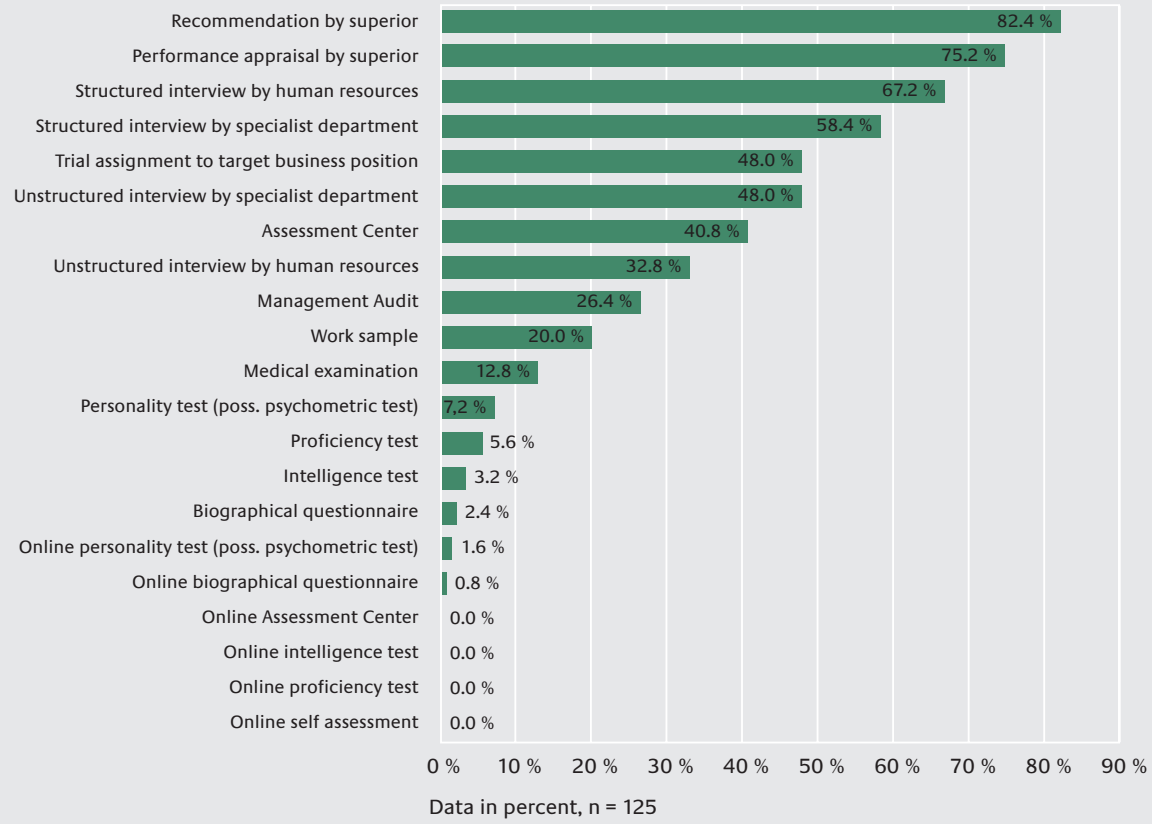
In summary, in view of the current status of the collective agreements, it is clear that there is development potential for business, especially in the areas of competence-based performance appraisal and qualifications consultancy, which could be improved by appropriate systems for documenting competences and learning. Improved standardisation of this would facilitate occupational mobility of employees and the transfer of knowledge and ability in the context of lifelong learning.

A.3.2 Examples of tools for personnel development and selection

Staff and knowledge management processes rely on tools, e.g. for recruitment, CET planning, regular appraisals, promotions, moves and redeployments, in which experiential learning on the job as well as competences acquired in other contexts are taken into account. Hell, Boramir, Schaar and Schuler[100] studied the use of internal personnel selection

100 Hell, Benedikt; Boramir, Ilkay; Schaar, Hagen; Schuler, Heinz (2006): Interne Personalauswahl und Personalentwicklung in deutschen Unternehmen. Wirtschaftspsychologie (1) 2–22.

Figure 5: Frequency of use of internal personnel selection procedures
Source: Hell, Benedikt; Boramir, Ilkay; Schaar, Hagen; Schuler, Heinz (2006), p. 7



procedures in the largest companies in Germany. In most cases, personnel selection was based on evaluations by superiors and structured interviews.

In small and medium-sized enterprises, the frequency of use displays similar distribution but costly procedures such as assessment, questionnaire and text procedures are considerably less widespread.

In the combination of internal and external procedures, the various forms of non-formal and informal learning and the skills arising from these usually play a part in staff appraisals, employer's references and assessment procedures. The necessary staff development measures are derived from these.

A.3.2.1 Staff appraisals

The staff appraisal is of indirect significance for the processes to recognise informal and non-formal learning since, when documented in the personnel file, it is used as the basis for the employer's reference. In large companies the institutionalised staff appraisal between employees, especially at middle management level and their boss, has pushed through a dialogue process of formalised documentation of skills, sometimes accompanied by written gradings in lists of competences. In this meeting, the employee and his/her superior can decide on a whole series of informal and non-formal learning processes to build on specialist and social competences such as attending internal training, job enlargement, job enrichment, job rotation, coaching etc.[101]

101 See GMD-Forschungszentrum Informationstechnik GmbH (2001): Das Mitarbeitergespräch in der GMD. Sankt Augustin, (2001), pp. 23 et seq.

A pre-structured staff appraisal generally comprises discussion of the past work period and the setting of new objectives. Qualification and supporting measures are included on the agenda as well as professional and personal development.[102] The company gives HR managers "preparation, implementation and documentation forms" as preparation and guidance.[103] The focus is on the proving of the employees in the workplace and the strengths and weaknesses demonstrated thereby. Apart from competences acquired in organised form, specialist and transferable competences acquired informally on the job are taken into account here.[104] These appraisals are predominantly used in large organisations; in small and medium-sized enterprises evaluation, assessment and recognition is usually carried out casually by their superiors.

Demonstration of the acquisition of skills by employees has a positive effect on staff development in companies as attention is drawn to the connection between employee motivation and the increasing importance of setting objectives[105], to the greater relevance of co-operative management and their inclusion in the company's planning processes and implementation strategies. It is now acknowledged that even in addition to fair pay for their work, employees are mainly concerned about "the quality of interpersonal relationships in the workplace"[106], i.e. social and personal competences that have usually been acquired informally.

The particular significance of the staff appraisal lies in the fact that it identifies the employees' individual potential and development opportunities in order to set objectives and at the same time offers a great opportunity to increase work and learning motivation and for employees to identify with the company.[107] This forms a basis for the continuing development of employees as part of lifelong learning. Although the staff appraisal has an indirect, rather than direct, employment law effect via the personnel file and the employer's reference, it influences the deployment, CET planning, status and remuneration of the company's employees. The companies incorporate the results of staff appraisals in their CET planning and hence in their objectives.

Reflection of learning activities and recording them in a structured way would give employees the opportunity to increase their input into their potential for development in the company and the objectives agreed with HR managers and also to obtain documentation of the skills they have acquired via informal means recognised by the company. A reference model that has already been introduced in Germany, and could be modified for this purpose, is the ProfilPASS, the records in which could be confirmed by the company and so further support the flexibility and mobility of its users. Preparation, implementation and compe-

102 Deutsches Institut für Erwachsenenbildung/Deutsches Institut für Internationale Pädagogische Forschung/Institut für Entwicklungsplanung und Strukturforschung (DIE/DIPF/IES) (2006): ProfilPASS. Dokumentation zu Entwicklung, Erprobung und Evaluation. Frankfurt am Main, p. 158 et seq.

103 The interviews conducted with businesses (BMBF 2004b, p. 89 et seq) and the statements from the company survey in 2005 recorded in the report on the development, piloting and evaluation of the ProfilPASS (DIE/DIPF/IES 2006, p. 158 et seq) showed that the annual staff appraisal meetings mostly use standardised questionnaires. According to statements by the companies surveyed, the mixture of an "external view" and practised dialogue seems to be the best way of recording employees' competences profiles and of comparing them with current and potential future job requirements. However, the separation of guidance and evaluation only rarely happens. But even the least feedback of reflections often gets lost in "day-to-day business". It must be stressed that only informally-acquired competences, especially social competences, directly relevant to the performance of the job are included.

104 See Schmitt, Arno (2005): Erfassung und Dokumentation von Kompetenzen aus der Sicht von Großbetrieben. In Frank, Irmgard; Gutschow, Katrin; Münchhausen, Gesa (pub.) (2005): Informelles Lernen. Bonn, p. 71–81

105 see Bahnmüller, Reinhard: Stabilität und Wandel in der Leistungsentlohnung. In: WSI Mitteilungen 7/2001, p. 426–433.

GMD (2001), p. 6.

107 see Eberle, Astrid; Racky, Sabine (2004): Untersuchung der Akzeptanz von Personal- und Zielvereinbarungsgesprächen. In: Mannheimer Beiträge zur Wirtschafts- und Organisationspsychologie; p. 22; available at http://psydok.sulb.uni-saarland.de/volltexte/2004/307/index.html

tence record forms could also be developed to be included in this. However, this could cause employees to feel obliged to fulfil these competence descriptions, arising partly from their own desire for a comprehensive record of their competences and partly from the demands companies make on them.

A survey of employees of a large pharmaceutical company on the acceptance of staff development and objectives meetings showed that the respondents fundamentally see advantages to staff appraisals. These include, for example, a "guaranteed dialogue between employees and their bosses and the creation of transparency of the superior's views". The written definition of objectives is also classed as a major advantage.[108] However, the authors of the study also suggested that further studies be carried out to include additional operational influences such as the management behaviour of the superiors, the structure of duties or work experience of the employees, to allow more substantiated and generalised statements to be made on the acceptance of staff appraisals and comparisons to be made between companies.[109]

A.3.2.2 Employer's references

The employer's reference, with its foundation in law, is an important tool for strengthening mobility in working life and must be issued by the company at the employee's request. A distinction is made between a simple reference, which contains a precise description of the employee's work as well as management and representative authority in addition to framework data, and a qualified reference which also contains details of performance and conduct. A qualified reference is only issued at the employee's express request.

The core of every employer's reference should be the description of the duties and activities carried out, from which third parties can deduce the individual's background experience, area of activity and range of competences. This places the emphasis not on qualifications but on proven action in one or more areas and consequently the competences required for this, irrespective of where they were acquired.

In practice, however, in addition to describing the activities, companies generally class the competences expected of their current and future employees – such as ability to work under pressure, commitment and willingness to take responsibility, learning competences, teamwork, communication and conflict-handling skills – in employer's references under "Strengths" and "Personal qualities" in a relatively undifferentiated way and irrespective of academic standards. The extent to which the formulation of references is defined by law, under which a reference must comply with the principles of "true" and "favourable", means that the informational value and credibility of employer's references is limited in order to avoid subsequent legal disputes.

Coded language regulated by the Trade Regulation Act, the Civil Code, the BBiG, a comprehensive body of case law and collective and works agreements allow for improved quality and, currently, sufficient room for the employer's reference to be expanded below political level.[110] This means there is a better range of options for highlighting in employer's references competences acquired informally and non-formally than there has been to date, and hence for improving the chances to acquire and increase employability, to increase occupational mobility and to strengthen decisions in the process of lifelong learning. Steps to improve vocational and individual transparency and increase the scope of the employer's reference include

- explanatory teaching guides and support material to prepare competence-based descriptions of activities
- a broad initiative to improve the quality of employer's references and longer term
- clarification of the question of a possible integration of the employer's reference tool with the education system.

108 See Eberle, Astrid; Racky, Sabine (2004), p. 25

109 See Eberle, Astrid; Racky, Sabine (2004), p. 26

110 see Füssel, Hans-Peter: Weiterbildungspässe – Überlegungen zu den rechtlichen Rahmenbedingungen einer Einführung. Bremen 2003.

Even the first two measures alone will constitute major steps towards occupational mobility of employees, in that the employer's references become more meaningful and of higher quality. This will significantly increase the value of skills, knowledge and abilities acquired on the job.

Guidance on expansion of the employer's reference are generating activities in large companies where staff forms for trainees have been developed in which linguistically highly-differentiated assessment criteria are graded by specialist competences, quality of work, organisation of work, personal and social skills. Another interesting approach that could give new impetus to the significance of the employer's reference is the certification of knowledge and skills learned during entry qualifications envisaged as part of the federal "Entry qualifications for young people (EQJ)"[111] programme. For a period of between six months and one year in a job, young people can take advantage of practical tests and procedures to ascertain competences in order to document that they hold qualification modules and to obtain certificates. This is intended to facilitate their entry into the labour force and the credit of the entry qualification towards their training period. [112] It is possible to link in with this, if competence recording and evaluation tools in addition to the employer's reference are developed, cross-sector and cross-occupation recognition of informal learning to be credited by third parties in the education and employment system.

A.3.2.3 Assessment methods and procedures

In addition to employer's references and staff appraisals, examinations in assessment centres geared to recording potential and competences have an independent weighting for the recognition of competences acquired non-formally and informally in the employment system.

In assessment procedures, the focus is not on subject knowledge; personal, job-related and social competences (often called soft skills) such as the ability to work in a team, communication skills, persistence, ability to work under pressure, initiative, motivation, creativity, goal-orientation, management potential or decisiveness are tested. They are assessed not as knowledge but in the form of situational exercises.

The assessment procedure therefore appraises and then evaluates whether, and to what extent, a person can analyse situations, tasks and problems in work-like situations, identify the particular demands of these, and respond with an appropriate strategy. In this way, the assessment centre takes on the aspect of a first work sample in which candidates must prove themselves. Since the primary focus here is on the ability to work independently, applicants and employees with comparatively poor qualifications also have opportunities for informal learning to be recognised, provided that barriers to recognition do not first prevent this. The fundamental objective of assessment centres, therefore, is to record, appraise and develop people's ability to work independently, i.e. their competences.

The Arbeitskreis Assessment-Center eV (assessment centre working group), in conjunction with Berlin Technical University, has carried out a representative survey of 1,600 companies in the German-speaking area with a response rate of 18 % and discovered that the frequency with which companies work with assessment procedures varies widely: 47 % of companies perform assessment procedures 1 to 4 times a year, 26 % of companies perform them 5 to 15 times a year and 27 % of companies perform them more than 15 times a year. The number of participants in each procedure perform was mostly between eight and ten. Although this does not allow the total number of participants at assessment centres in Germany to be calculated, these figures do give some idea. The interim results of a comparative study run in 2007 of DAX-100 companies showed that ACs are evidently far more widespread in these companies

111 Zentralverband des Deutschen Handwerks (ZDH) (2005): Entry qualifications with Chamber of Crafts certificate. Berlin. The information booklet sets out specimen forms which, in addition to the "Company reference" and the "Chamber of Crafts certificate", facilitate a pre-defined "differentiated assessment of skills taught" and an "evaluation of interdisciplinary qualifications".

112 ZDH (2005) Domain-specific qualifications are graded as "independent", "with assistance" and "fail". The employer can use a prescribed scale of 1 to 4 to assess interdisciplinary abilities, behaviour and qualities such as "following the rules", "care, sense of order", "assessment of own performance", "co-operation" etc.

and there is a close correlation to the company size.[113]

Hell, Boramir, Schaar and Schuler came to a similar conclusion among the largest German companies.[114] Among other things, they studied the usage frequency of internal personnel selection procedures (see figure in section A.3.2). In the companies surveyed, evaluations by superiors, structured and unstructured interviews, trial transfer of duties and assessment centres were deemed particularly valid. At the same time, the authors observed that assessment centres are used considerably more frequently in German companies than they were even as recently as 1993.[115] As a tool for internal personnel selection, ACs are mainly used with trainees and with junior and middle management; workers, however, had contact with them considerably more rarely.

Table 10: Internal personnel selection through assessment

Target groups	Proportion in %
Unskilled workers	4.3
Skilled workers	3.6
Employees without management duties	12.4
Trainees	34.2
Managers (junior)	30.3
Managers (middle)	30.2
Managers (senior)	17.0

Source: Hell, Benedikt; Boramir, Ilkay; Schaar, Hagen; Schuler, Heinz (2006), p. 8

Assessment procedures have been launched in the following industries (in quantitative order): banking, construction, mining, chemicals, EDP, iron, electrical, food, trade, car manufacturing, textiles, media, mechanical engineering, insurance, public services, energy suppliers, oil, management consultancy, telecoms, IT etc.[116] Customers and those financing the procedures are generally medium-sized and large companies who carry out assessments either internally or via appropriate training providers.

The profiling by the Federal Employment Agency is an assessment procedure in a broader sense, with much lower costs, and generally also less depth, compared with assessment centre procedures; however they have far-reaching significance within the framework of labour market policy. This is part of the Federal Employment Agency's support and mediation activities[117] and assesses the individual opportunities of the unemployed relative to the needs of the labour market. It includes ascertaining

- professional and personal characteristics (incl. knowledge, qualifications, work experience, how up-to-date qualifications and knowledge are, ability and willingness to undertake CET) and

- circumstances that will probably make integration more difficult (§ 6 section 1 SGB III).

A distinction is made between an initial check and more in-depth profiling. The individual assessment of an unemployed person's opportunities and appreciation of their past history is regarded as a pre-requisite for providing advice on individual job-seeking strategies by the job centre.[118] Informally-acquired competences, both from work experience or activities in a social environment, become very important in the job placement process.

113 http://www.arbeitskreis-ac.de.

114 Hell, Benedikt; Boramir,Ilkay; Schaar, Hagen; Schuler, Heinz (2006): Interne Personalauswahl und Personalentwicklung in deutschen Unternehmen. Wirtschaftspsychologie (1) 2–22.

115 See Hell, Benedikt; Boramir, Ilkay; Schaar, Hagen; Schuler, Heinz (2006)

116 http://www.arbeitskreis-ac.de.

117 The profiling tests are specifically designed for all consultancy services and integration measures pursuant to § 37 or § 421i of SGB III and/or profiling pursuant to § 48 SGB III. The procedures are offered in two forms: for participants with average and higher educational qualifications and for participants with lower secondary school qualifications or no qualifications.

118 BA-Rundbrief, Geschäftsanweisung 58/2002 : In: http://www.arbeitsamt.de

Whilst the goal of the Federal Employment Agency's profiling is the vocational redirection of the unemployed and their integration into working life, assessment procedures in companies are used primarily for personnel selection and the best possible internal allocation of resources without transfers to other companies. However, it would be in the interests of the employees if they could also use the results of assessment procedures in other ways.

To date, assessment procedures have mainly been used at junior and middle management level. Against the background of the changing world of work and the increasing demands on all employees, assessment procedures should also be made available to the less skilled, just like other competence ascertainment procedures.

The procedures covered in this section A.3 open up prospects mainly to employees who have acquired many competences non-formally and informally but whose formal acquisition of competences is low or not certified. The majority of the procedures are internal company procedures i.e. they increase opportunities to transfer within the company, but do not promote transfer opportunities into the vocational education system or from one company to another. The companies are generally interested in keeping staff with high potential and preventing others from benefiting from their competences. Of the procedures described here, only the employer's reference is designed for use outside the company.

There are risks, for example, in the easy "trainability" of assessment and appraisal situations, the great dependence of employees on the person conducting the appraisal and the current primarily unilateral use by the assessing company.

The following measures lend themselves to optimising the existing procedures:

- facilitated access to taking of vocational qualifications at a later stage through the option of partial qualification
- training of assessors and appraisers in handling objective qualitative and quantitative recording procedures
- reduction of the subjective role by comparing several judgements
- support for the creation of competence-based descriptions of activities by means of explanatory teaching guides and support material
- initiative to assure the quality of employer's references
- creation of appraisal and assessment situations for which it is not possible to second-guess or "train"
- development of an inter-company appraisal grid
- strengthening of access to and acceptance of competence ascertainment procedures.

B Recognition of non-formal and informal learning – background, classification and benefits

Part B "Recognition of non-formal and informal learning – background, classification and benefits" largely follows the OECD guidelines and contains the corresponding six components (in sections B1 to B6). The country-specific situation of Germany in relation to the recognition of non-formal and informal learning will be described according to this thematic structure. There are some individual deviations from the prescribed questionnaire. Any short-comings are generally due to the data situation. Additions will be included with a view to the basic questions of the project. The framework and procedures described in part A will be used as explanations at appropriate points.

B.1 Component 1: Contextual factors

Germany is experiencing a gradual change from an industrial society to an information and knowledge-based society in which employees' level of qualification is portrayed as one of the essential factors for success for the economy. The need for highly-qualified staff is increasing, as are the demands for geographic and occupational mobility of employees, which means that both the individuals concerned and educational planning are facing growing challenges. Many new qualifications have come into being in recent years, new apprenticeships and study programmes are specifically preparing students for the requirements of business. However, a shortage in academic occupations of specialists and skilled workers is still evident. The increase in the educational level and the quality of training and CET are core goals of future social and education-policy development, not least in view of the demographic change.[119]

At the same time, there are other structural and cyclical problems in the labour market. Of the some 3.7 million people registered as unemployed (as of June 2007), many have low-level or insufficient qualifications or are unable to keep up with the increased demands for qualifications. Even qualified specialists and university/college graduates experience structural and cyclical unemployment. However, the people who find it particularly difficult to find work are those without a school qualification or vocational training and older workers who have lost their job. In view of the demographic change, the challenge is to open up new employment opportunities to precisely these groups of unskilled and older workers through CET and by adapting qualification requirements.

This background is giving new impetus to the debates on reforms to the education and employment systems. The recognition of work-related competences acquired informally is becoming increasingly important, and is reinforced by European initiatives.

The education-policy debate keeps returning to the close correlation between educational opportunities and social background. It has been documented several times that the individual performance and competence of pupils only partially determines their further educational pathways. The cultural and economic resources of their families influence their pathways considerably.[120] Since the educational reforms of the 1970s, access to higher education has been made easier, but people from educationally and financially deprived social strata are still greatly underrepresented.

119 See also Käpplinger, Bernd; Reutter, Gerhard (2005): Wege in der Kompetenzerfassung – Begründungen und Entwicklungsstränge. In: QUEM (Hrsg.): Kompetenzdokumentation für informell erworbene berufsrelevante Kompetenzen. Manuscript print, Berlin.

120 See also on this and for the following: Wolter, Andrä (2004): Still ruht der See. **Hochschulzugang und soziale Ungleichheit**, available at: http://www2.klassenbildung.de/uploads/wolter.pdf, p. 2.

The recognition of all learning, i.e. including competences acquired via non-formal and informal routes in one's private and working life, is widely regarded as a starting point for meeting the current challenges. The question of the extent, purpose and form in which formal recognition of competences acquired in a non-formal or informal manner should become more widespread is currently the issue of heated debate and the various stakeholders involved, people involved in education policy, management and labour, and academia, all have different answers.[121] The discussion on the recognition of learning outcomes from all social contexts in Germany is fuelled by the education policy recommendations of the European Union, empirical findings of research into (adult) education relating to the significance of independent, job-related learning, the increase in "qualification and self-marketing requirements" for employees and social trends such as women's rights, consequences of labour migration and technological developments.

Käpplinger et al identified the following references and development strands which contribute substantially to increasing the demand for procedures to recognise informal learning[122]:

- A focus on recording output-oriented learning outcomes and competences (in contrast to input-oriented learning processes) serves to harmonise the various national education systems and at the same time facilitates a better comparison of skills and requirement profiles.

- The structural change in the world of work calls for on-the-job learning as a result of continuous technical developments, increased qualification requirements by companies and the need for individuals to adjust to the needs of new employers in view of increasing mobility and changes in the work place and to apply with the appropriate competences.

- The individual is expected to able to represent his personal and social competences in a marketable way and to be identifiable as and suitable for tasks as a fully responsible "manpower entrepreneur".

- The recording of competences by learners is an expression of their changing professional self-image and should help eliminate deficits.

B.1.1 Demographic change

Demographic change is a key challenge for Germany at the beginning of the century – and has a crucial impact on the key social areas of the economy, employment, health and also on vocational training and adult education.

According to the 11th coordinated demographic projection of 2006 by the Federal Statistical Office, the population in Germany will drop by around 13.5/8.5 million people to 69/74 million between 2005 and 2050. This assumes a constant birth rate, increased life expectancy (base assumption), and yearly net immigration of between 100,000 (lower mean population figure) and 200,000 people (upper mean population figure). At the same time, the average age of the population is increasing.

By 2050, just under a third of the population will be 65 or older. For every person of this age in 2050, there will be between 1.6 and 1.7 people aged from 20 up to 65 exclusive. By 2020, the 50–64 age group will have overtaken the middle age group of 35 to 49-year-olds as the largest group in the working population. The average age of the workforce will increase. At the same time, the number of yearly entrants to working life will fall.[123]

121 See also the Committee on Innovation in Continuing Training, initiated by the BMBF and set up to develop objectives and recommendations for the future of continuing education and lifelong learning. Experts from academia, business and practice as well as representatives of management and labour and the Länder Conference of Ministers of Education and Cultural Affairs are involved. Of particular relevance here is working group I, 'Verknüpfung formalen und informellen Lernens', see also section B.6.

122 See Käpplinger et al. (2005), p. 9–15.

123 Federal Statistical Office (Hrsg.) (2006c): 11. koordinierte Bevölkerungsvorausberechnung. Annahmen und Ergebnisse, Wiesbaden.

Another phenomenon with an impact on the qualifications structure in Germany is the emigration of highly-qualified individuals and specialists who can find better working conditions and higher pay abroad. In the face of the high emigration of highly-qualified specialists – which has remained constant during recent years – and the relatively low immigration of suitably qualified people, measures for facilitating immigration are now being discussed in Germany.[124] Even today, some areas of the economy already suffer from a lack of highly-qualified specialists which cannot be remedied by current university/college graduates.[125]

In light of this, lifelong learning and the recognition thereof become crucially important in enabling Germany, as an information and knowledge-based society, to maintain the necessary levels of output and knowledge even with an ageing and shrinking working population. The fact that people can be capable of learning, flexible, able to work under pressure and are highly innovative into old age is only hesitantly being included in HR policy in German companies. Staff development plans geared towards continued employability and lifelong learning, and which focus on the integration of work and learning, are increasingly being discussed.[126]

At the same time, the falling number of entrants into working life over the medium term – the demand for vocational training places will probably be reduced by 10 % between 2008 and 2012 – will require the vocational training system to deliver a carefully tailored range of training measures leading to versatile vocational qualifications that meet the requirements of business.[127]

The changing profiles of learners in vocational training and the pattern of participation resulting from demographic change will be described below across the various sectors of vocational training in secondary level education II, tertiary level education, CET and informal learning.[128]

124 See Cologne Institute of Business Research (Hrsg.) (2007): iwd, (27), Cologne, p. 7.

125 Experts on the labour market and IT industry associations fear a significant shortfall in IT specialists over the next few years, which in turn will have a negative impact on growth in the industry (see Federal Employment Agency (Hrsg.) **(2006c): Beruf, Bildung, Zu**kunft. Informationen für Akademiker/innen. Edition 2006/2007. volume 23, IT careers, Nuremberg, p. 19). A shortage of skilled workers is also expected in engineering professions, in graphic and web design and among economists and people working in the humanities with knowledge of EDP and less common foreign languages (see Federal Employment Agency (Hrsg.) (2006d): Beruf, Bildung, Zukunft. Informationen für Akademiker/innen. Edition 2006/2007, volume 26, Natural sciences. Nuremberg, p. 55 (see also section B.1.4).

126 See Rump, Jutta (2004): Der demografische Wandel – Konsequenzen und Herausforderungen für die Arbeitswelt. In: Zeitschrift für angewandte Arbeitswissenschaft, No. 181, 2004, p. 49–65.

127 BMBF (Hrsg.) (2006a), p. 91 et seq.

128 However, the data situation in relation to learners with a background of migration is only of limited use since only the criterion of nationality, and not migration status, has been recorded to date in German reporting on education (see Bund-Länder Commission for Educational Planning and Research Promotion (BLK) (Hrsg.) (2003a): Förderung von Kindern und Jugendlichen mit Migrationshintergrund, volume 107, Bonn, p. 1). In view of declining participation in education by foreign young people, the significance of this issue from the viewpoint of education policy and reporting is increasingly being acknowledged. The latest surveys by the Federal Institute of Vocational Training are providing the first data on young people with a migration background (see Friedrich-Ebert-Stiftung (Hrsg.) (2006): Kompetenzen stärken, Qualifikationen verbessern, Potenziale nutzen. Berufliche Bildung von Jugendlichen und Erwachsenen mit Migrationshintergrund. Dokumentation einer Fachkonferenz der Friedrich-Ebert-Stiftung und des Bundesinstituts für Berufsbildung, Bonn) and the national education report in Germany also addressed participation in education by young people with a migration background as a central profile issue for the first time in 2006 (Konsortium Bildungsberichterstattung (Hrsg.) (2006): Bildung in Deutschland. Ein indikatorengestützter Bericht mit einer Analyse zu Bildung und Migration. Bielefeld).

B.1.1.1/2 Changes in the profiles of learners

Vocational training in secondary level II: the dual system[129]

As shown in section A, the overwhelming majority of fully-qualifying vocational training in secondary level II takes place in the dual system – a combination of company-based training and attendance at a vocational school. The main advantage of the dual-system vocational training, which is also held in high esteem throughout Europe, is that it allows learners to experience everyday life in a company supplemented by the necessary theoretical knowledge. This forms an important basis for lifelong experience-based learning.

Over the past few years, companies' willingness to train young people in the dual system has fallen considerably, as the declining trend in new vocational training contracts shows. In 2000, nearly 622,000 new training contracts were signed, but by 2006 this figure had fallen to just 576,000.[130] This declining trend is explained partly by the general development of the economy and employment in Germany and partly by the increasing lack of training maturity or vocational aptitude among young people. In addition to this, the learning requirements of the more recent and modernised apprenticeships have increased. Closely related to this development is the huge increase in participants in prevocational or partially qualifying measures and the preference for appointing school leavers with higher school qualifications.

Table 11: Trainees with newly signed training contracts, by prior school education as percentage values

Prior school education	1993	1997	2001	2005
Without secondary general school certificate	3.0	2.7	2.6	2.1
With secondary general school certificate	31.6	29.8	32.5	30.8
Intermediate school certificate or equivalent	34.7	36.1	37.1	39.6
Entrance qualification for admission to a university/college/university of applied science	13.8	16.1	14.5	17.3
Basic vocational training year	3.7	3.5	2.8	2.2
Full-time vocational school	6.6	6.9	8.4	5.3
Vocational preparation year	1.2	1.6	2.1	1.4
Other or not specified	5.5	3.3	–	1.2

Sources: Statistisches Bundesamt, Fachserie 11. Reihe 3, p. 1, Berufliche Bildung 1978–1999; BMBF, Berufsbildungsbericht 2003 und 2007

The described shifts have, in some cases, had a significant effect on the profiles of trainees in the dual system. The average age of trainees was 19.4 years in 2004 – only slightly higher than in 1990 (19 years) but significantly higher than in 1970 (16.6 years). It is also striking that the proportion of over 23-year-olds commencing training increased from 2.0 in 2002 to over 5.5 %.[131]

The proportion of young people with foreign nationality in the dual system has fallen over the last few years. In 2004 they made up only 5.6 % of the total, making them significantly underrepresented considering that 10.1 % of people in the 18–22 age group have foreign nationality.[132] This low participation cannot be explained by a lack

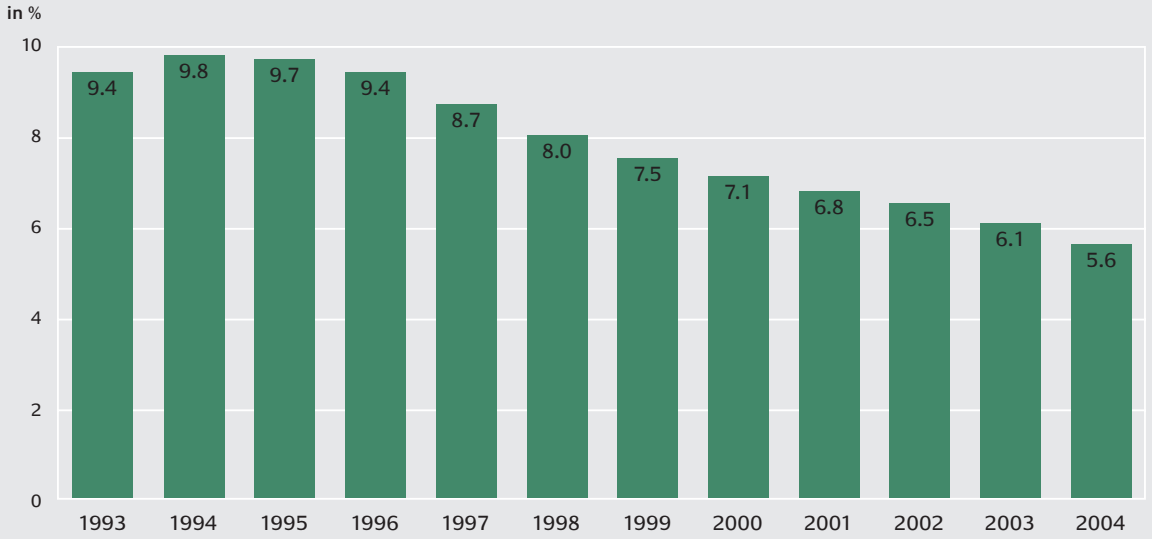
129 This section will only cover fully qualifying vocational training, and not prevocational or partially qualifying measures.

130 See Federal Ministry of Education and Research (BMBF) (Hrsg.) (2007b): Bericht zur technologischen Leistungsfähigkeit Deutschlands 2007, Berlin, table 1.1.1/3.

131 See BMBF (Hrsg.) (2004a), (2005a), (2006a).

132 See BMBF (Hrsg.) (2006a), p. 113 and http://www.bib-demographie.de/index2.html.

Figure 6: Proportion of foreign trainees in western Germany 1993 to 2004
Source: Federal Statistical Office, vocational training statistics, calculations by the Federal Institute for Vocational Training[135]



of interest in training in the dual system or by different school qualifications or the qualification level.[133] The government's planned 22nd revision of the Federal Law for the Promotion of Training will bring further improvements to vocational training promotion in accordance with SGB III for foreign adolescents and young people.[134]

The proportion of female trainees (approx. 40 %) has been constant for years. The choice of occupation for young women still concentrates on far fewer occupations than young men[136] tending to focus on administration and office work, personal care, domestic studies and cleaning occupations, goods and services, health occupations, and textile clothing and leather industries. The choice of young men covers a wider spectrum overall, but, here too, there is a focus on certain occupations such as metal and electrical occupations.[137] The proportion of women opting for new occupations was a total of 23 % in 2004, with particularly low figures for occupations such as system informatics technician (4 %) and system and plant operator (just under 6 %).[138] Women are better represented in media and commercial occupations.

The proportion of disabled people among all trainees increased from 1 % in 1991 to 3 % in 2004.[139]

In summary, as regards vocational training the increased qualification requirement in training pathways and the falling demand for trainees in companies is leading to extended periods of basic school education and an increase in participation in prevocational and vocational partial-qualification measures. As a consequence the average age and entry level of trainees in the dual system has

133 See BMBF (Hrsg.) (2006a) and Federal Institute for Vocational Training BiBB) (Hrsg.) (2007a): Jährliches Forschungsprogramm 2007. Neue Forschungsprojekte http://www.bibb.de/dokumente/pdf/a11_jaehrliches-forschungsprogramm_2007.pdf, access date: 26.2.07

134 Statement of 22.08.07 by the Office of the Commissioner of the Federal Government for Migration, Refugees and Integration.

135 See Konsortium Bildungsberichterstattung (Hrsg.) (2006), p. 154.

136 http://www.transregio.net/equal/dokumentation/tp8/downloads/QBM_Text_gesamt.pdf (14.2.06).

137 See BMBF (Hrsg.) (2006a), p. 18 and 138.

138 See BMBF (Hrsg.) (2006a), p. 130.

139 See BMBF (Hrsg.) (2006a), p. 134.

increased but young people with foreign nationality and female trainees continue to be increasingly under-represented in the new occupations.

In addition to creating new vocational training opportunities, the Federal Government has launched other initiatives to increase the training opportunities for young people in the dual system. This includes the "National Pact for Training and Young Skilled Staff in Germany" entered into in June 2004 by the central organisations of German industry for an initial period of three years. Among other things, this includes mutual declarations of commitment and agreements to improve the training situation and training maturity of school leavers[140] and has helped reduce the mismatch between unplaced applicants and unfilled training places. The results of the training pact have been positive. As a result, the pact partners decided in February 2007 to extend the pact to 2010. In so doing they highlighted that they consider it the responsibility of the whole of society to help young people without training maturity to qualify and integrate, both vocationally and socially. Against this background, they have agreed to increase training output further and to put new momentum into the development of the pact.[141] In an additional initiative for creating more training places, the BMBF has also set up the "Jobstarter" programme, which aims to achieve a targeted structural increase in company offerings in the regions.[142] The BMBF programme "Competences promotion – Vocational qualification for target groups with special promotion needs", for example, is intended to integrate people with special promotion needs.[143]

Vocational training in tertiary education

As part of the Bologna process, a comprehensive and complex structural reform of higher educational studies has been initiated in Germany which focuses on international comparability of qualifications and course lengths.[144] A key component was the introduction of bachelor's and master's study programmes for which the legal basis was created with the revision of the Framework Act on Higher Education in 1998. Bachelor's and master's study programmes have been part of the standard range of offerings from German universities since 2002. At present, the majority of students are still following the traditional diploma, Master of Arts and state examination study programmes, but longer-term these should be superseded by the new study structures, according to the Conference of Ministers of Education and Cultural Affairs on 12.6.2003.[145]

In examination year 2005, over a quarter of a million university/collage graduates passed their examinations, considerably more than in previous years. With an average age of 28.6 years (2005), graduates of German universities are relatively old by international standards.[146] However, with the progression of the structural reform of higher educational studies, the length of periods of study at universities and colleges and, in consequence, the average age of all graduates, is expected to fall considerably in the longer term.[147]

An examination of the short-term development of student numbers by age group shows that the increase in students since 2003 can be traced back to the under 30 age group. The decline in graduate numbers between 1998 and 2003 in the younger age groups can be partially explained by the

140 See BMBF (Hrsg.) (2006a), p. 7.

141 See Nationaler Pakt für Ausbildung und Fachkräftenachwuchs in Deutschland 2007–2010, Berlin 2007, p. 2–3.

142 See BMBF (Hrsg.) (2006a), p. 7.

143 See BMBF (Hrsg.) (2006a), p. 134.

144 See also on this and for the following Schwarz-Hahn, Stefanie; Rehburg Meike (2003): Bachelor- und Masterstudiengänge in Deutschland. Empirische Befunde zur Studienstrukturreform. http://www.bmbf.de/pub/bachelor_und_master_in_deutschland.pdf, access date: 26.2.07, p. 11 et seq.

145 10 Thesen zur Bachelor- und Masterstruktur in Deutschland. Resolution of the Conference of Ministers of Education and Cultural Affairs of 12.6.2003

146 See Statistisches Bundesamt (Hrsg.) (2005): Bildung und Kultur, Fachserie 11, Reihe 4.2, Prüfungen an Hochschulen 2005, Wiesbaden, p. 231.

147 See Bonin, H., Schneider, M.; Quinke, H.; Arens, T. (2007): Zukunft von Bildung und Arbeit. Perspektiven von Arbeitskräftebedarf und -angebot bis 2020. In: Institut zur Zukunft der Arbeit: IZA Research Report No. 9, Bonn, p. 179–183.

Table 12: Trend in graduate numbers by age groups in 1998 to 2005

Age group	1998	2003	2005	Change 1998–2003 (%)	Change 2003–2005 (%)
Under 30	162,653	158,655	188,755	-2.5	19.0
30-39	58,637	52,153	54,529	-11.1	4.6
40-49	5,302	6,244	7,791	17.8	24.8
50+	933	1,094	1,407	17.3	28.6
Total	227,525	218,146	252,482	-4.1	15.7

Source: Statistisches Bundesamt, Fachserie 11, Reihe 4.2, 2005, 2003, 1998, ies calculations

Table 13: Final examinations taken by gender, nationality and pass rate

	Examinations taken			Pass rates in %				
				Germans				
Year	Overall	Proportion of women of all Germans in %	Proportion of foreigners (%)	Overall	Women	Men	Foreigners	total
1992	198,607	39.9	3.9	95.1	95.0	95.1	93.6	95.0
2000	216,696	44.9	5.9	98.8	99.0	98.6	98.2	98.8
2003	220,538	48.5	7.8	99.0	99.2	98.8	98.6	98.9
2005	255,152	49.7	9.4	99.0	99.1	98.9	98.4	99.0

Source: Statistisches Bundesamt, Fachserie 11, Reihe 4.2, 2005, 2003, 2000, 1992, ies calculations

temporarily low participation in the new Länder, which was accompanied with lower numbers of students starting courses at the beginning of the 1990s.[148] The increase in graduate number in the two older groups is most noticeable proportionally and has continued steadily since 1998, but in absolute terms is barely perceivable. With the expected demographic change in the working population and the increasing qualification demands of the German economy, this trend, which can at last be seen in all age groups, is expected to continue in the medium term.

A more sophisticated look at candidates for higher education examinations since 1992 highlights the following trends: the proportion of women among German graduates has risen continuously over the past few years and reached nearly 50 % in 2005. The proportion of graduates with foreign nationality has also increased significantly; this factor in the short-term trend can be attributed essentially to the extremely high proportion of foreign students on master's study programmes,

148 See Konsortium Bildungsberichterstattung (Hrsg.) (2006), p. 105.

who presumably, unlike their German fellow students, often already possess a bachelor's degree. In this area, they made up just under 44 % of 9,300 candidates[149]. Pass rates have increased since 1992, and in 2005 hardly varied for the different groups of graduates.

In summary, there has been an increase in student numbers over the last few years, with greater participation by women and people with foreign nationality. The government's planned 22nd revision of the Federal Law for the Promotion of Training will bring further improvements to the promotion of training for foreign adolescents and young people.[150]

In the long term, i.e. until 2035, the Institute for the Study of Labor (IZA) predicts a 10–12 % increase in the number of workers with a university or college qualification. This anticipated rise should be attributable to the expected reduction in the average period of study and the likely increase in pass rates at universities from 67 % to 80 %.[151]

For some years, increased attention has been paid to university dropouts. In 2005 the Higher Education Information System (HIS) published its second study into university dropouts with a detailed look at dropout rates at universities and universities of applied sciences.[152] Taking the 2002 graduate year group as a basis, the dropout rate was 25 %, and, at 26 %, slightly higher at universities than at universities of applied sciences (22 %). The study contains sophisticated analyses by subject groups and gender; however age and nationality could not be recorded. It would be interesting, especially in respect of recognition of the outcomes of partial study and competences acquired by informal means, to study the fate of those who dropped out.

Continuing education and training

The data presented here on the profiles of participants in CET is largely based on information from the Reporting System on Continuing Education (BSW) which has conducted a survey on participation in CET among people between the ages of 19 and 64 in Germany every three years since 1979. When recording information about CET, the reporting system takes the German Education Council definition of continuing education and training as a "continuation or resumption of organised learning after completion of a vocational training phase of varying length" as a basis.[153] The survey also covers intentional self-directed learning outside working hours and informal learning in a vocational context. So not only is a distinction made between vocational and general CET under non-formal learning, but also in terms of forms of competence acquisition not organised by third parties.

The distinction between vocational and general CET is, in fact, neither clear nor undisputed. However, since it has a long tradition in Germany, this distinction is still used to describe forms of CET.

CVET is the traditional field for courses to increase or supplement vocational knowledge. In practice, a distinction is made between updating training, advanced further training and retraining.[154]

Participation in organised CET increased substantially in the first two decades of the survey and since then has hovered around the 1994 level.[155] In 2003, 41 % of the resident population of Germany took part in continuing education. 26 % attended at least one general course and 26 % attended at least one vocational course.

149 See Statistisches Bundesamt (Hrsg.) (2005), p. 30.

150 Statement of 22.08.07 by the Office of the Commissioner of the Federal Government for Migration, Refugees and Integration.

151 See Bonin et al. (2007), p. 183; the increase in pass rates can be attributed to the shorter periods of study at universities and the fact that students who discontinue their master's study programme often already have a bachelor's degree, meaning that they have achieved a vocational qualification.

152 See Hochschul-Informations-System (HIS) (2005): Studienabbruchstudie 2005. Die Studienabbrecherquoten in den Fächergruppen und Studienbereichen der Universitäten und Fachhochschulen. Kurzinformation A1/2005. Hannover.

153 See on this and for the following BMBF (Hrsg.) (2006b), p. 12 et seq.

154 See sections A.1.1.2 and A.1.1.3.

155 BMBF (Hrsg.) (2006b), p. 19.

Table 14: Trend in participation in continuing education and training since 1979

	Participation rates in %								
Age group	1979	1982	1985	1988	1991	1994	1997	2000	2003
CET total	23	29	25	35	37	42	48	43	41
General CET	16	21	18	22	22	26	31	26	26
CVET	10	12	12	18	21	24	30	29	26

Source: BMBF (Hrsg.) (2006b): Berichtssystem Weiterbildung IX, p. 19, 26, 40

Table 15: Participation in continuing education and training by age groups from 1979 to 2003 in the federal territory

	Participation rates in %								
Age group	1979	1982	1985	1988	1991	1994	1997	2000	2003
CET total									
19–34	34	38	32	43	44	49	53	47	46
35–49	21	31	25	37	40	47	54	49	46
50–64	11	14	14	20	23	28	36	31	31
General CET									
19–34	23	28	23	27	25	30	35	29	29
35–49	16	21	17	24	24	29	33	29	27
50–64	9	11	12	14	15	19	26	21	20
CVET									
19–34	16	15	14	23	25	27	33	31	29
35–49	9	15	14	20	24	29	36	36	31
50–64	4	4	6	8	11	14	20	18	17

Source: BMBF (Hrsg.) (2006b): Berichtssystem Weiterbildung IX, p. 90

The results of the BSW confirm that older age groups less frequently attend vocational and general CET than middle-aged and younger people. This can be attributed above all to the particularly small amount of participation in CET among 60–64-year-olds, which can be explained by their low overall participation in the labour market and their declining willingness to invest in vocational CET in the light of approaching retirement.

The East-West comparison illustrated in the BSW since the reunification of the two German states shows substantially higher participation in CVET in the eastern Länder up to 2000. CVET played a decisive role in coping with the processes of transformation in the first ten years, particularly with regard to securing one's existing job or obtaining a new one. Figures were above-average for measures for adapting to new work tasks and also for retraining. In the intervening period structures have become more equivalent, and CVET participation rates are at 26 % for both East and West. However, general CET played – and continues to play – a smaller role in the eastern Länder than in the West.

There is still a close relationship in Germany between the level of school education and vocational training and participation in CET, which is also documented by the Reporting System on Continuing Education and Training: the higher the vocational qualification, the greater the participation in CET. In 2003, the rate of participation in CET was 23 % for people without vocational training compared with 62 % for people with a university qualification.[156]

Likewise, work status also correlates with participation in CVET: the working population participate in CET more often than the unemployed and full-time workers more than part-time. This applies nationally for men and women, but at a different level: the rate of participation in CET for women is consistently lower than for men, and unemployed women in particular participate in CET much more rarely than unemployed men.[157] The domestic situation, the family status, the number of children and whether other people requiring care live in the household have a crucial impact on participation in CET, particularly for women. It is striking that the participation in CET by men from households with several children is particularly high and outstrips other life situations.

People with foreign nationality have been surveyed on their participation in CET as part of the reporting system since 1997. However, owing to the nature of the survey, only foreigners whose German was good enough for a verbal interview have been included. Although this means that in all probability it has mainly been the better-integrated foreigners who have been included, there is still a large discrepancy in the participation in CET between people with German nationality and people with foreign nationality (42 % vs. 29 %). Since other studies confirm that people with good or very good German language skills participate in CET more frequently than those with poor or no German language skills, an even lower rate of participation must be assumed for foreigners living in Germany.[158]

Table 16: Participation in continuing education and training by Germans and foreigners from 1997 to 2003 in the federal territory

	Participation rates in %		
Nationality	**1997**	**2000**	**2003**
CET total			
Germans	49	44	42
Foreigners	28	27	29
General CET			
Germans	32	27	26
Foreigners	20	18	21
CVET			
Germans	31	30	27
Foreigners	15	12	13

Source: BMBF (Hrsg.) (2006b): Berichtssystem Weiterbildung IX, p. 135

In addition to foreign nationality, the Reporting System on Continuing Education and Training survey for 2003 asked Germans about their migration background. There was no difference in participation in CET between Germans with a migration background and foreigners. In 2003, both groups had a participation rate of 29 % compared with an overall rate of 42 % for Germans.[159]

Informal learning

The importance of informal competence acquisition is increasingly recognised in Germany. This is also demonstrated by the increased efforts to record this learning within the framework of reporting and research on education. The Reporting System on Continuing Education delivered initial information on the informal acquisition of vocatio-

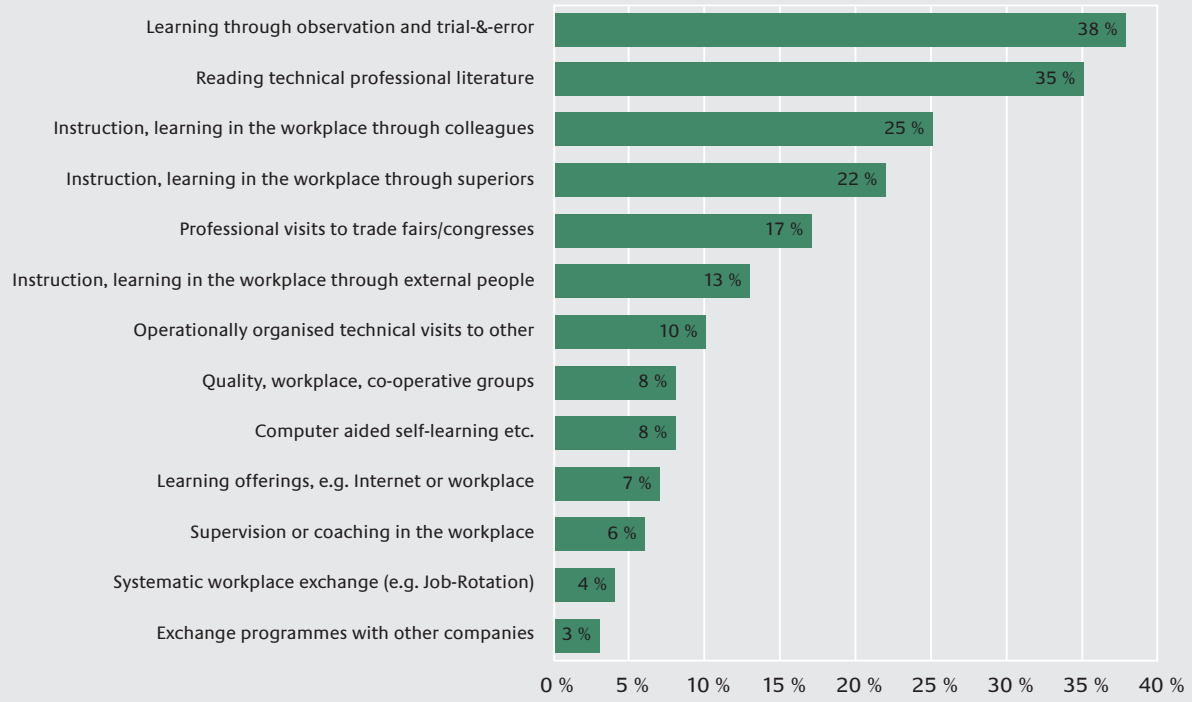
156 See BMBF (Hrsg.) (2006b), p.109 et seq.

157 See also on this and for the following Beicht, Ursula (2005): Berufliche Weiterbildung von Frauen und Männern im Ost-West-Vergleich, Hrsg. Bundesinstitut für Berufsbildung, Forschung Spezial, Heft 10, Bonn.

158 See BMBF (Hrsg.) (2006b), p.135 et seq.

159 See BMBF (Hrsg.) (2006b), p. 140.

Figure 7: Participation in informal CVET
Source: BMBF (Hrsg.) (2006b): Berichtssystem Weiterbildung IX, p. 191



nal competences in 1988, since when the instruments that aim to enable improved representation of the many forms of informal vocational learning have been further developed.[160] For example, in 2003, there was sophisticated BSW data on the different forms of informal learning and on the profiles of learners in Germany:

That the investigation of informal learning represents a particular methodological challenge was demonstrated by, for example, the survey on informal learning in the lifelong learning ad-hoc module in the European Labour Force Survey. In addition to decisive factors for other surveys, such as the survey method, integration of the topic into the question setting and the formulation of individual questions, informal learning is also difficult to describe because of the multitude of possible informal learning activities. As a result, surveys using suitable categories are inadequate, especially since respondents are usually themselves unaware of this type of learning.[161]

Nationally, around 61 % of the working population participated in informal CVET in some form or another in 2003. Most frequently, informal learning occurred through observation and trial and error in the work place and reading specialist literature.

Factors such as gender, educational level, occupational position and nationality also have an impact on participation in informal vocational learning.

160 See BMBF (Hrsg.) (2006b), p. 188.

161 Seidel, Sabine (2005): Berichterstattung zur Weiterbildung in ausgewählten europäischen Ländern. In: Rosenbladt, Bernhard von; Bilger, Frauke; Post, Julia (2005) Konzeptstudie BSW – AES. Nationale und europäische Bildungsberichterstattung im Themenfeld Weiterbildung, München.

Table 17: Participation in informal vocational learning among selected groups of the working population

	Participation rates in %
Basic working population	
Gender	
Men	63
Women	58
Vocational training	
No vocational training	44
Apprenticeship/full-time vocational school	56
Master craftsman, other specialised technical schools	73
University	78
Occupational status group	
Manual worker	51
Employee	64
Civil servant	71
Self-employed/independent professionals	68
Nationality	
German	62
Foreigners	46
Sector	
Industry	59
Crafts	59
Trade/services	59
Public sector	68
Company size	
1–99 employees	57
100–999 employees	63
1,000 employees and over	68
By way of comparison: working population overall	61

Source: BMBF (Hrsg.) (2006d), Berichtssystem Weiterbildung IX, p. 193

In addition to the informal acquisition of vocational knowledge, the BSW also records self-learning outside working hours in an open question. In 2003, 35 % of those asked used this form of continuing learning. Here too the influence of factors such as educational level, working status, gender and age was highlighted:[162]

- Civil servants in work more frequently than manual workers in work (58 % vs. 26 %),
- People with a university qualification more often than people without vocational training (53 % vs. 23 %),
- People with the Abitur (higher education entrance qualification) more often than people with a lower level of school education (50 % vs. 25 %),
- Germans more often than foreigners (36 % vs. 25 %),
- 19–34 year olds more often than 50–64 year olds (39 % vs. 28 %),
- The working population more often than the unemployed (37 % vs. 30 %),
- Men more often than women (38 % vs. 32 %).

The most common sector is “Computers, EDP, Internet”. 19 % of all self-learners were teaching themselves in this area.

B.1.1.3 Germany’s national immigration and integration policy

Against a background of demographic change, globalisation and growing mobility, the Federal Government regards improved integration of migrants as well as targeted and transparent immigration control as one of its key tasks. The control goals are therefore geared towards the integration of foreigners already living in Germany and the long-term linking-in of highly-qualified individuals to strengthen the domestic economy. At the same time, immigration in general should be restricted

162 See BMBF (Hrsg.) (2006b), p.202.

while fulfilling Germany's humanitarian obligations.[163]

The Immigration Act was reformed in 2005 and 2007 in order to implement these goals and two integration summits[164] have been held in recent years at which further strategies and measures to improve integration were discussed and included in the National Integration Plan. The National Integration Plan comprises voluntary commitments on behalf of the Federal Government, Länder, and local governments as well as non-governmental institutions and organisations.

With the adoption of the Immigration Act on 1 January 2005 the labour market was moderately opened up, via an arrangement for the granting of unlimited residence to highly qualified individuals, and those on a list of exceptions governed by regulations.[165] This created the opportunity for give jobs not filled by nationals to labour migrants and to increase immigration of vocationally qualified employees. Specifically, the provisions of the new Residency Act contain the following changes from the old right of residency[166]:

- A permanent residence permit and the unlimited right to employment is envisaged for highly-qualified individuals from the outset. Family members are to receive preferential access to the labour market.

- Self-employed/independent professionals can enter Germany and obtain a residence permit if the financing of their company is secured and they can offer the prospect of positive effects on the economy. The pre-requisite is that they need to create at least five jobs and invest EUR 500,000. If they can prove after three years that the planned activity is successful, a permanent residence permit can be granted.

- Foreign students can remain in Germany for the purpose of looking for a job relevant to their qualification for one year after completing their qualification in Germany.

- Acceleration of the application procedure: the Aliens Authority has sole decision-making authority on the immigration permit for the purpose of employment with a single administrative decision (one-stop government) but consults the employment agencies regarding the acceptance of employments.

- The limit on international staff exchanges has been increased from two to three years according to the employment regulations (in accordance with § 18 article 4 Residency Act).[167]

- The green card arrangement to combat the shortage of IT specialists from the year 2000 has been abolished and superseded by the Residency Act (AufenthG) and the employment regulations (§ 27 No. 1 BeschV). If they have appropriate qualifications, therefore, non-EU citizens can still obtain a time-limited residence permit but generally only after labour market testing and agreement by the Federal Employment Agency. Particularly highly-qualified IT specialists who earn substantially more than the upper contribution limit for the statutory health insurance funds may be granted a permanent residence permit without the consent of the Employment Agency.[168]

These new provisions on the right of residency for highly-qualified individuals and students have promoted the recognition of competences

163 See Bundesministerium des Inneren (BMI) (2005a): Politische Ziele. http://www.zuwanderung.de/3_polit-ziele.html, access date: 28.07.07.

164 On 14.7.2006 and on 12.7.2007 in Berlin.

165 See also on this and for the following: Bundesministerium des Inneren (BMI) (Hrsg.) (2006): Bericht zur Evaluierung des Gesetzes zur Steuerung und Begrenzung der Zuwanderung und zur Regelung des Aufenthalts und der Integration von Unionsbürgern und Ausländern (Zuwanderungsgesetz), Berlin, p. 18.

166 See also on this and for the following: Bundesministerium des Inneren (BMI) (Hrsg.) (2005b): Zuwanderungsrecht und Zuwanderungspolitik. Broschüre des Bundesministeriums des Inneren, Berlin, p. 29.

167 See BMBF (Hrsg.) (2006), p. 22.

168 See Bundesministerium des Inneren (BMI) (Hrsg.) (2005c): Migrationsbericht des Bundesamtes für Migration und Flüchtlinge im Auftrag der Bundesregierung (Migrationsbericht 2005). Berlin, p. 78 et seq.

acquired abroad in the labour market. The abolition of the green card arrangement had no effect on the number of immigrant specialists in the IT sector. In 2005 the figures were unchanged from the two previous years at approx. 2,300. However, considerably more permits were granted at the turn of the millennium (around 4,300 in 2000 and around 6,400 in 2001).[169]

The "Act implementing the European Union Directives on residence and asylum law" also supplements the Immigration Act in other areas:

- The introduction of a special "residence permit for researchers"[170], which makes it easier to employ researchers in Germany and accelerates the corresponding test procedure, achieves the goal of the European Directive to promote the admission and mobility of third-country (non-EU) nationals and to "make the community more attractive for researchers from all corners of the world". For researchers entering Germany, the implementation of national law implies that they will be given "specific right(s) in respect of residence, teaching at universities, equal treatment in the recognition of degrees, working conditions, social security, taxation etc."[171]

- The implementation of a broader EU Directive, the so-called "Students' Directive", is also intended to harmonise conditions for the entry and residence of students and for admission into employment. It also facilitates the entitlement to be granted residence in a second member state of the European Union for the purpose of study which promotes the mobility of foreign students.[172] The extent to which this law will affect the number of foreign students has been very difficult to forecast thus far and the introduction of tuition fees in some Länder could have a negative impact on the choice of Germany as a place to study. Although there was still an increase in the number of foreign students in winter semester 2004/2005 compared with the previous year, in academic year 2005/2006 there was, for the first time, a slight decline in the number of foreign students starting courses compared with the previous year.[173]

Even if the new Immigration Act improves integration and work opportunities for highly-qualified individuals, it has been criticised by many stakeholders and associations since it tends to make admission conditions more difficult for the majority of would-be immigrants.[174] The further definition of immigration law is currently the subject of intense political debate.[175]

B.1.1.4 Recognition by tertiary educational establishments

In Germany, study places are awarded either by the Central Office for the Allocation of Study Places (ZVS) or the universities themselves, depending on the study programme. The pre-requisite for admission to a university is generally the general or subject-specific certificate of aptitude for higher education (Abitur) obtained after twelve or thirteen years at school. The alternative means of admis-

169 See BMBF (Hrsg.) (2006), p. 23.

170 Council Directive 2005/71/EC of 12.10.2005 on a specific procedure for admitting third-country nationals for the purposes of scientific research (Research Directive), available at http://eurlex.europa.eu/LexUriServ/site/en/oj/2005/l_289/l_28920051103en00150022.pdf., see also http://www.eracareers-germany.de/anlagen/Vortraege_Mai_Juni_2007/Hess.ppt.

171 Federal government bill on the implementation of the European Union Directives on residence and asylum rights (available at http://www.bmi.bund.de/cln_012/nn_122688/Internet/Content/Common/Anlagen/Gesetze/Gesetzentwurf__Umsetzung__aufenthalts__und__asylrechtlicher__Richtlinien__der__EU,templateId=raw,property=publicationFile.pdf/Gesetzentwurf_Umsetzung_aufent halts_und_asylrechtlicher_Richtlinien-_der_EU.pdf.

172 See Council Directive 2004/114/EC of 13.12.2004 and http://www.bmi.bund.de/cln_012/nn_122688/Internet/Content/Common/Anlagen/Gesetze/Gesetzentwurf__Umsetzung__aufenthalts__und__asylrechtlicher__Richtlinien__der__EU,templateId=raw,property=publicationFile.pdf/Gesetzentwurf_Umsetzung_aufenthalts_und_asylrechtlicher_Richtlinien_der_EU.pdf.

173 See BMBF (Hrsg.) (2006), p. 41.

174 See also http://www.wdr.de/themen/kultur/religion/islam/konflikte/gipfel_070709.jhtml.

175 See Süddeutsche Zeitung: Fachkräftemangel kostet jährlich 20 Milliarden, 20.8.2007, p. 1.

sion to higher education, based on recognition of competences acquired in non-formal and informal ways and regulated by the Länder, are described in detail in section A.1.2. These forms of access via the second and third educational pathways play only a minor role, at just 3 % of first registrations.[176]

Against the background of demographic development, the constantly changing demands for qualifications, and the imminent shortage of skilled workers combined with the high degree of selectiveness of the education system, the proportion of academic study in Germany needs to be increased. To support this, programmes for the further development of dual study programmes and for the recognition of competences acquired in non-formal and informal ways were applied to higher education study programmes and study programmes at universities of applied science, as described in detail in sections A.1.2.3 and A.2.4.

B.1.2 Internationalisation

Because of globally increasing migration and the activities of multinational companies, the international mobility of potential members of the work force is increasingly becoming a focus of attention, both for commercial enterprises and national governments. The relevance of the transnational recognition of formal qualifications and competences acquired in non-formal and informal ways is increasingly recognised.[177] However, the formal recognition of qualifications obtained outside Europe remains largely untouched by this, meaning that those originating from third countries still find it more difficult to obtain recognition for their vocational qualifications.[178]

The concept for the European Qualifications Framework (EQF) put forward in September 2006 by the European Commission should be considered an important driver for achieving the structural change required for international mobility. The EQF aims to facilitate the mutual recognition of qualifications, encourage mobility across Europe, and take into account the aspect of "lifelong learning". The objectives include a facilitation of university admission based on recognition of existing knowledge, practical experience and credits for people coming from vocational training or the recognition of vocational qualifications acquired in member states of the European Union. The innovations include the introduction of levels to which every member state will assign national qualification levels. Another key component of the concept adopted by the Commission is the focus on learning outcomes and hence on independence of forms of learning. The implementation of this qualifications framework is a matter for the member states. The German federal equivalent to the EQF is Deutscher Qualifikationsrahmen (German qualifications framework – DQR), which is described in detail in components 3.1.e and 3.1.f.

A further concept for increasing the transparency of qualifications and competences, and thus increasing international occupational mobility, is "Europass". This concept was also developed by the European Commission, and is described in component 2.

External students' examinations which lead to a qualification in a recognised apprenticeship trade are an established procedure for recognising vocational qualifications, including those obtained abroad, in the education system and hence for integrating immigrants.[179] Since the reform of the Vocational Training Act in 2005, consideration of "foreign vocational training qualifications and

176 See Heine, Christoph; Kerst, Christian; Sommer, Dieter (2007). p. 42.

177 In Europe alone, this includes the Lisbon Strategy, the Bologna Process, the Copenhagen Declaration, the European Qualifications Framework, the European Credit Transfer System for higher education (ECTS), the European Credit System for VET (ECVET) and Europass.

178 This is particularly the case for healthcare professionals from other countries, who are often unable to establish themselves in Germany as a doctor, dentist, chemist, etc., even if they gained their qualifications in Germany. The so-called German conditions in the relevant professional systems constitute the background to this (see Beauftragte der Bundesregierung für Migration, Flüchtlinge und Integration (2005): Integrationspolitik als Gesellschaftspolitik in der Einwanderungsgesellschaft. Memorandum der Beauftragten der Bundesregierung für Migration, Flüchtlinge und Integration, Marieluise Beck, Berlin).

179 See section A.1.1.1

periods of employment abroad" has been explicitly stipulated in this procedure.[180] Interested parties can use preparatory courses to prepare for an external students' examination but this form of preparation is not a mandatory requirement for admission to an examination. The external students' examinations also represent an opportunity for migrants to enter an occupation, but this option is not well-known among them.[181]

A further stimulus is provided by the expansion of the EU directives on recognition for accessing and practicing regulated professions (Directive 2005/36/EC) and their existing area of validity (member states of the EU, the EEA, and Switzerland).[182]

In summary, in Germany – even above and beyond the examples given here – the stimuli the European Union has provided with the aim of creating legal frameworks for the recognition competences acquired non-formally and informally – even abroad – will continue to be grasped and implemented in a targeted manner. Existing procedures as described in section A open up additional opportunities for the promotion of occupational and geographic mobility and provide starting points for the improvement of transparency and transfer opportunities in the German education system.

B.1.3 New ICT

B.1.3.1 Use of new information and communication technologies

The new information and communications technologies are becoming increasingly important, albeit only slowly, for the modularisation of educational pathways and examinations. In some sectors they are almost fully established, in others they are still in a pilot phase. In addition to the open universities and virtual study programmes, the concept of eLearning has been proven in adult education especially for teaching and tests. Popular applications are in "new media", "culture" and "languages"[183]. Information technologies in individual modules are also used in staff development measures (libraries, banking etc.) and especially for training and further training for teachers. Another area where they are used is universities of applied sciences and universities, the majority of which primarily use eLearning as an extension of classroom teaching in the form of blended learning scenarios. Some universities, however, such as the FH Lübeck or the distance learning academy of Furtwangen University include online study programmes or virtual study programmes as part of their repertoire.[184]

Digital media are also gradually gaining importance in distance learning, a typical form of self-directed learning, as a result of the increase in computer- and internet-based learning. Whereas teaching used to take place mainly by means of written tuition material sent by post, nowadays an increasing proportion of communication between teacher and learner, and even between learners, is conducted online.[185]

---

180 See Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2005b): Die Reform der beruflichen Bildung. Berufsbildungsgesetz 2005, Berlin. See also section A.1.1.1.

181 See Pro Qualifizierung (2006): Arbeitsmärkte in der Europäischen Union – Offen und zugänglich für alle? Europäische Migrationsgespräche. Schriftenreihe Migration und Arbeitswelt, Berlin, p. 15.

182 See Pro Qualifizierung (2006), p. 11.

183 http://www.elearning-zentrum.de/index.cfm?uuid=F43DAB25104B6B109D4F6C22A280365F&and _ u uid=F63D49-0834731D71A7489D2801C6173D&field_id=16.

184 See Hochschul-Informations-System (HIS) (2006): E-learning an deutschen Fachhochschulen. Fallbeispiele aus der Hochschulpraxis. HIS: Forum Hochschule 5/2006, Hanover, p. 8 et seq.

185 Distance learning is a method of instruction offered under private law, mainly of a professional nature and in the form of correspondence courses. Providers may be private or public institutions. The correspondence courses lead to internal final examinations or prepare students for government or public examinations. Approvals for correspondence courses which prepare students for government or public examinations, and are subject to mandatory approval, are issued by the Central Government Office for Distance Learning (Staatliche Zentralstelle für Fernunterricht = ZFU, Cologne); for certain vocational correspondence courses following prior advice from the Federal Institute for Vocational Training (Bundesinstitut für Berufsbildung (BIBB, Bonn). The ZFU also registers "hobby courses", which are not subject to approval and are exclusively for leisure purposes, but of which they must

According to regular surveys of the distance learning institutions a total of approx. 218,000 participants is expected in 2005. A comparison with the preceding year shows a 4 % drop in numbers. In contrast with this the number of distance learning courses has again increased. With just under 4 % more courses the number of licensed distance courses (excluding hobby courses) increased to 2,045. Two thirds of the packages relate to the vocational and one third to the general educational sector.[186]

There were striking increases compared with the preceding year in the number of participants in 2006 in the education and psychology sectors (+ 20.5 %) and humanities (+ 34.4 %). There were sharp falls however in mathematics, natural sciences, technology (-26.9 %) and social sciences (-75.4 %). "Compared with the preceding year the proportion of those in distance learning preparing for a recognised qualification has climbed again (2003: 34.4 %, 2004: 33.3 %, 2005: 36 %). The proportion of women has once more risen compared with previous years and now comprises more than half, for the first time since data has been collected by the Federal Statistical Office (1983)."[187] Split by age group the under 35's represent the strongest group with approximately 62 % of all those participating in distance learning.

In 2005 the Federal Institute for Vocational Education and Training carried out a representative survey of trainees and vocational training staff in the electrical trade to establish the status quo of the use of information and communication technology in vocational training e.g. through the use of learning platforms, online trade journals or online communities.[188] According to this study, the essential pre-requisites for the use of PC- or Internet-based teaching and learning media exist in the places of training. However, these tended to be used sporadically and in no way as a matter of course, indeed their existence was unknown to a large proportion of the trainees surveyed. The BIBB survey shows that the large majority of trainees and vocational training staff have a clear interest in PC- and Internet-based teaching and learning media.

Overall, apart from its use in universities, the use of information and communication technology is very much based on individual initiatives and pilot projects. Compared with some neighbouring countries, eLearning in Germany still plays only a minor role. According to estimates by the Federal Employment Agency, many enterprises, including small and medium-sized enterprises, have acquired no experience of eLearning or their experience is limited to the use of computer based training (CBT).[189]

The federal government acknowledges the great importance of new media for education reforms and modernisation of vocational qualifications and supports a wide range of programmes on computer- and Internet-based learning in various branches of vocational training and industry. [190] Use of digital media has also increased significantly in school education over the last few years. This was also ensured by the "Internet for schools" initiative established jointly by the Federal Ministry of Education and Research and Deutsche Telekom AG in 1996, which, by offering blanket provision of computers at German schools and supporting teachers through various projects, made digital media a firm component of school education in Germany. From 2008 the initiative is to be funded jointly by the Federal Ministry of Education and Research, Deutsche Telekom AG and the Federal States in order to transfer the association with digital media into other educational areas and develop new tasks focusing on "lifelong learning".[191]

---

be notified (cf. http://lexikon.meyers.de/meyers/Fernstudium).

186 See also on this and for the following: BMBF (Hrsg.) (2007a), p. 247 et seq.

187 See BMBF (Hrsg.) (2007a), p.248.

188 See Bundesinstitut für Berufsbildung (BIBB) (Hrsg.) (2005): Use of job-related (PC- or internet-based) media in the electrical trade. Results of a survey of trainees and ÜBS training staff. Published on the Internet: 12.12.2005. Access date 28.6.07. http://www.bibb.de/dokumente/pdf/a32org_gesamtauswertungt_fogolin_zinke.pdf.

189 See Bundesagentur für Arbeit (Hrsg.) (2006c), p. 15.

190 See BMBF (Hrsg.) (2006a), p. 289.

191 See http://www.schulen-ans-netz.de/ueberuns/derverein/geschichtedesvereins/entwicklung.php.

Table 18: Trainees in new professions (1997-2005)

		1997		1999		2001		2003		2005	
In force since	new professions	total	fem. in %	total	fem. in %	total	fem. in %	total	fem. in %	total	fem. in %
1997	IT specialist	1,800	12.1	11,385	11.5	23,931	11.3	22,797	9.9	20,187	7.4
1997	Information technology officer	772	24.0	3,911	22.6	6,884	22.2	6,527	21.8	4,723	18.2
1997	IT systems electronics technician	1,485	4.6	6,366	3.8	9,277	4.1	8,978	4.3	7,526	3.9
1997	IT system support specialist	756	25.8	4,024	28.4	7,016	29.8	6,766	27.9	6,230	23.7
1996	Media designer for images and sound	500	27.8	1,347	35.3	1,775	30.3	1,692	30.3	1,598	27.8
1998	Media designer of digital and print media			6,531	55.6	12,842	55.6	11,011	54.5	9,524	51.1
2003	System informatics technician							48	4.2	391	5.9
	Total	5,313	15.1	33,564	22.9	61,725	23.3	57,819	21.6	50,179	18.8

Source: BMBF (Hrsg.) (2007a): Berufsbildungsbericht 2007, 2006, 2004, 2002, 2000; ies-Berechnungen

B.1.3.2 New qualifications based on IT technologies

Vocational training in information technology was revised in 1997 as a result of long and intensive discussions between politicians, management and labour. [192] The precursor to the discussions was the acknowledgement that existing vocational training pathways were obsolete and that too few qualified IT staff were available for work. Four new apprenticeships were created to make vocational training more attractive and to address the acute shortage of skilled workers:

- IT specialist in application development and systems integration
- IT systems electronics technician
- IT system support specialist
- Information technology officer

The first three of these prepare apprentices for work at IT manufacturers and service providers, whilst the fourth prepares for work at IT applications companies and enterprises that use IT. The vocational training period is three years but may be accelerated to two years if the apprentice has a (subject-specific) certificate of aptitude for higher education.

In addition to these four new IT occupations, three other IT-related apprenticeships were created:

- System informatics technician
- Media designer for images and sound

192 See also on this and for the following: see Bundesagentur für Arbeit (2006c), p.27 et seq.

- Media designer of digital and print media

Vocational training periods for IT-related occupations may be accelerated on the basis of previous general or vocational education or relevant work experience.[193]

The number of trainees in all new IT- or IT-related apprenticeship trades rose strongly until 2001. The careers of "IT specialist", and "IT systems electronics technician" and "Media designer in digital and print media" were in especially high demand among young people. The number of trainees in all seven careers has however fallen slightly since 2003. There is overall a strikingly low proportion of women in the new IT professions. This has fallen from 23.3 % in 2001 to 18.8 % in 2005. Only within media design in digital and print media were the sexes virtually balanced in 2005.

As demand for specialists could not be met even with these newly created professions and the IT sector was still recruiting 80 % of its workers from among the semi-skilled and self-taught lateral entrants[194], it was felt in Germany that there was still urgent need for action.[195] Accordingly a new IT CET system was set up based upon the four new apprenticeship trades in existence since 1997, which is explained in detail in Section A.1.1.4.

In addition to the qualifications that can be obtained in the sector of training and CET, the universities of applied sciences and universities are offering an increasing number of study programmes in IT.[196]

193 See Bundesagentur für Arbeit (2006c), p. 72 et seq.

194 Lateral entrants in this connection are people without an IT-orientated qualification or IT-orientated study who have obtained a relevant retraining qualification or training on the job (see Bundesagentur für Arbeit (2006c), p. 70).

195 See Bundesagentur für Arbeit (2006c), p.70 et seq and ProIT Professionals (2004): Projektinformation. Pilotprojekt ProIT Professionals. Brückenschlag zwischen beruflicher und hochschulischer Bildung, Darmstadt, available at http://www.bildungsbuero-koeln.de/pdf/ProIT.pdf, p. 2.

196 There is a list of the approx. 50 courses of study in the IT-sector in: Federal Employment Agency (Hrsg.) (2006c), p.11.

B.1.3.3 Use of ePortfolios

Although there are a number of individual approaches and pilot developments on the topic of ePortfolio there is no fully developed system. The topic remains one of minor importance. For example, thus far a few individual university lecturers have offered their students the opportunity to present their work on the Internet, and it is used sporadically in schools as vocational training for media competences.

For example, schools have development projects that are introducing ePortfolios into teaching and so are developing individualised learning arrangements. These are intended to enable pupils to learn reflection, presentation and media competence, while the teachers involved find out about the general teaching methodology and acquire basic technical knowledge. University lecturers also have the opportunity to update their skills in the use of new media. [197]

A feasibility study is intended to look at whether and how a digital version of the ProfilPASS[198] system should be developed in addition to the existing printed version. Above all, it should clarify what positive results can be expected of a ProfilPASS ePortfolio, what form of implementation is conceivable and what the associated costs are.

B.1.4 Economic developments and skills shortages

B.1.4.1 Legal framework, programmes, research on the recognition of experience-based learning

At this point the OECD is asking about the legal framework, support programmes, policy developments and research work aimed at recognition of experiential knowledge, skills and competences – at both a regional and a national level.

Answers to these questions will predominantly be found elsewhere. The framework and political

197 See http://www.uni-due.de/e-competence/portfolio.html.

198 See Section A.2.2.

statements in are in Component 2, implementation in Component 3, examples of national support programs and the relevant research in Section A.2 and the individual processes in Section A.1. Reference is made to regional development below.

At regional level the BMBF "Learning regions – promotion of networks" programme is at the heart of the "Lifelong learning for all" programme,a central approach to promoting lifelong, self-directed learning. From 2001 until 2008 encouragement was given to the development and expansion of approximately 75 educational sector and multi-sponsor regional networks to the amount of approx. EUR 134 million, of which EUR 65 million came from the European Social Fund (ESF).

In the networks cooperation between as many participants as possible at regional level (such as general, vocational and more advanced schools and educational providers, companies, job centres, business promotion services, chambers of commerce and industry, local authorities, unions and employers, cultural institutions etc.) is aimed at developing, testing and permanently establishing innovative approaches in the area of lifelong learning.

The topics of the learning regions with their approximately 350 sub-projects are geared to the potential and problems relevant to the regions concerned. These include establishing a regional educational management system, integrated advice, educational marketing, educational databanks and the devising of strategies for interfaces between the education sectors: transition from school to work, development of new training packages for KMU, honorary appointments and mentoring.

The programme is supported by a steering committee, in which all the federal states as well as management and labour are represented.

In the framework of consolidation, model solutions for self-directed learning have been developed in the "Learning Centre" promotion area since 2006, supported by regional networks for Lifelong Learning. A central starting point for the activities of Learning Regions in this sector is that of innovation in learning with new media. The modular self learning offerings used by the networks, which are adapted to the learners' individual needs, encourage informal learning processes.

Integrated service packages with self-learning offerings along with advice and support measures are made available to all target groups, especially to small and medium-sized companies, distance learners and the educationally disadvantaged. Self-directed adaptation to qualifications is encouraged by appropriate advice on learning, and the provision and maintenance of information offerings and tools for recording and developing competence. Documentation of non-formally and informally acquired skills and competencies includes among others the ProfilPASS and a guide to the development of media competences in the area of new media. Both processes can be developed into personalised portfolios and permanently incorporated in the individual process of recognition of lifelong, self-determined learning.

The approaches used by the "Learning regions – promotion of networks" programme have been widely appreciated and individual projects have been awarded prizes. Many of the government's initiatives have given rise to cooperations that have enabled Learning Regions to establish themselves as facilities for transferring educational innovation.

B.1.4.2 Skills shortage

From the government's point of view the current increase in demand for specialists is leading to short-term sectoral and regional bottlenecks, but not to an overall skills shortage. Germany can certainly meet its present and future labour requirements predominantly from existing and future domestic labour potential. Nevertheless, both short and long-term requirements may arise, especially in the academic sector, which cannot be met from domestic potential alone.[199] The OECD reaches this conclusion in its most recent migration report, in which it points out that assuming no net immigration takes place over the next two years, Germany along with Japan will suffer a fall in its

199 Statement by the Federal Ministry of Labour and Social Affairs (BMAS) of 29.8.2007.

working population.[200] According to a statement issued by the Institute for Occupational Research the skills shortage in Germany is not a "macro-economic development" but a "regional, sectoral or company-specific problem". Affected industries are IT, electrical engineering and mechanical engineering. [201] German enterprises in the aviation, power generation and medical technology industries have however expressed strong concerns, according to the results of a survey by WELT.de of 30 DAX-listed companies and the main industry associations. Large companies and groups have sought suitable specialists abroad, however this opportunity was limited for smaller German companies.[202] Estimates by the Federal Employment Agency indicate a rise in demand for specialists in individual sectors and regions.

According to Institute for Occupational Research estimates, the enterprises' concerns about an acute skills shortage are overblown as the number of unfilled positions has declined compared with the previous year and can be reduced further if the companies do not insist on employing "young, experienced and dynamic staff" but instead included older unemployed engineers, the long-term unemployed or unemployed women in their staff planning.[203]

Estimates of the future need for skilled workers based on the current employment situation can be found in the report on Germany's technological capability. This makes it clear that the service sectors in particular (technical and non-technical research and development, consultancy and communications) along with automotive and mechanical engineering and the IT sector are highly dependent on university graduates.[204] It is assumed from this that technology-orientated and knowledge-intensive segments of the industrial and service sectors will require a considerable number of additional specialists in periods of growth, who would then have to remain available if companies' opportunities for expansion were not to be restricted. Apart from this the age-related retirement of a considerable proportion of highly qualified employees from their working lives will create an additional need for university graduates in the foreseeable future. There are rumoured to be some 330,000 academics, excluding those employed by the public sector and the education system, who will retire by 2013 and who still provide 70 % of the highly qualified employees in "knowledge-intensive and non-knowledge intensive industry" and "knowledge-intensive and non-knowledge intensive" services in 2005. Based on these estimates the report forecasts 1.6 times the demand for graduates in these sectors in 2013 compared with those qualifying in 2005.[205]

In order to be able to make predictions on whether and how the German education system (according to calculated demand) will be able to produce sufficient highly qualified individuals in future, the report analyses the trend in the numbers of university graduates, first-year students and those with the necessary entrance qualifications in previous years and reaches the following conclusion: Although there was a serious collapse in the figures for graduates and first-year students, especially in engineering and the natural sciences, these picked up again between 2001 and 2005.[206] But this in particular will not be sufficient in the longer term to meet the calculated demand in these subject groups, on the one hand because the German school system – even by international standards – produces significantly too few with entrance qualifications.[207] On the other hand student numbers in Germany exhibit

200 See http://www.swr.de/swr1/rp/nachrichten/-/id=446650/nid=446650/did=2283492/1kfi58/index.html.

201 See http://www.swr.de/swr1/rp/nachrichten/-/id=446650/nid=446650/did=2283492/1kfi58/index.html.

202 http://www.welt.de/print-welt/article159489/Ingenieure_verzweifelt_gesucht.html.

203 See http://www.swr.de/swr1/rp/nachrichten/-/id=446650/nid=446650/did=2283492/1kfi58/index.html.

204 See BMBF (Hrsg.) (2007b), p.107.

205 See BMBF (Hrsg.) (2007b), p.107 et seq.

206 See BMBF (Hrsg.) (2007b), p.113 et seq.

207 Compared with the population group of the same age the proportion of potential students with entrance qualifications in Germany is approx. 40%, while in other comparable industrial countries the proportion is more than 50%. See BMBF (Hrsg.) (2007b), p. 115.

very low intensity[208] in the knowledge-intensive areas of the industrial and service sectors , which is in part caused by a low proportion of women graduates in many subjects. This means that some educational and qualification potential in Germany remains unused.[209]

B.1.4.3 Economic disparities

The Federal Government's second report on poverty and wealth details the development of incomes between 1998 and 2003 and sets it in the context of trends in the economy as a whole. Overall there has been a slight increase in disparities in the spread of income and in educational opportunities. However, it has at least been possible to cushion these by means of government control measures.[210]

Between 1998 and 2003, annual gross incomes of dependent employees in Germany rose by just under 6 % from an average of EUR 26,000 to EUR 27,500. This was equivalent to an increase in real terms of 1.1 %.[211] Associated with this was an increase in the distribution or disparity of incomes that is particularly striking when looking at all incomes including income from part-time employment (see table). Here the Gini[212] coefficient rose from 0.396 to 0.423. The redistribution system however, consisting of transfer income, tax and social insurance contributions, has succeeded in reducing the level of inequality by means of substantial restructuring so that a significantly lower figure was achieved, at approx. 0.25, with the net equivalence incomes[213] than with the gross incomes.

In respect of the risk of increasing poverty, the Federal Government's second report on poverty and wealth states that Germany is the country with the third lowest poverty risk quota in Europe, behind Denmark and Sweden, and that the overwhelming majority of people live in secure circumstances.[214] Nevertheless, due to the overall economic situation, the poverty risk has risen since 1998, especially for the unemployed, single parents and young people under the age of 24. The employed, the self-employed and people over the age of 64 have a below-average risk of poverty.

Unemployment is the main cause of poverty and hence for the receipt of social security benefits. The unemployed also make up the majority of recipients of social assistance or Hartz IV for children under the age of 18, over half of whom are growing up in single parent families. Difficulty of access to employment and a lack of childcare options contribute substantially to this.[215] The Federal Government is making efforts to encourage the integration of people of working age into the labour market by means of active labour market policy: mobilisation of those affected, intensive guidance and job-seeking assistance and help with procuring childcare services.

---

208 (in each case as a proportion of 100,000 employed persons aged between 25 and 34).

209 See BMBF (Hrsg.) (2007b), p. 115; knowledge-intensive applies to the segments of industry in which the proportion of university graduates, employees educated in the natural sciences or engineering and/or employees having research, development and construction tasks are above average in numbers (see Niedersächsisches Landesamt für Statistik (Hrsg.) (2003): Statistische Monatshefte 4/2003, p. 188).

210 See Bundesministerium für Arbeit und Soziales (BMAS) (Hrsg.) (2005): Lebenslagen in Deutschland – Der 2. Armuts- und Reichtumsbericht der Bundesregierung. Berlin, p. XXIII et seq.

211 see BMAS (Hrsg.) (2005), p.17 et seq.

212 The Gini coefficient is a statistical measure of inequality. It is based on the Lorenz curve and describes the relationship between the empirical curve and the uniform distribution line on a scale from 0 to 1. The higher the value, the more unequal the distribution.

213 The net equivalence income is calculated by dividing the gross income from paid employment, self-employment and assets including the imputed rental value of self-used residential property, plus current transfers and minus compulsory contributions to social insurance and tax, by the total number of household members weighted in terms of need. This means that the person receiving the main income is weighted at factor 1.0, all other members of the household aged 14 and over receive a weighting factor 0.5 and those under 14 have a weighting factor of 0.3. Consequently, in the case of a family with two children under 14 the household income is not divided by 4 – as it would be with equivalent per capita weighting – but by 2.1.

214 see BMAS (Hrsg.) (2005), p.XXII.

215 See BMAS (Hrsg.) (2005), p. XXVIII.

Table 19: Development and distribution of income 1998 and 2003

	1998	2003
Gross income from independent work[1]		
a) all recipients		
Average in EUR per annum	25,955	27,493
Gini coefficient	0.396	0.423
b) full-time employees		
Average in EUR per annum	33,832	37,601
Gini coefficient	0.271	0.283
Net equivalence income of the population[2]		
Average in EUR per annum	1,541	1,740
Median in EUR per month	1,375	1,564
Gini coefficient	0.255	0.257

[1] Including employer's social security contributions.

[2] Net income per household divided by the total of the equivalence weightings of members of the household according to the new OECD scale
Source: EVS after calculations by Hauser/Becker 2005 after BMAS 2005, p. 18

Table 20: Poverty risk quotas1 in Germany

Population group	1998	2003
Differentiation by gender		
Women	13.3	14.4
Men	10.7	12.6
Differentiation by age		
under 15	13.8	15.0
16 to 24	14.9	19.1
25 to 49	11.5	13.5
50 to 64	9.7	11.5
65 and over	13.3	11.4
Differentiation by work status2		
Self-employed	11.2	9.3
Employed	5.7	7.1
Unemployed	33.1	40.9
Pensioners	12.2	11.8
People in households with (a) child(ren)3		
Single parents	35.4	35.4
2 adults with children	10.8	11.6
Total poverty risk	12.1	13.5

1 Poverty risk limit 60 % of the median of the current equivalent income weighted by the new OECD scale in %
2 Only people aged 16 and over
3 Children: persons under the age of 16 and persons aged 16-24 if they are not working and at least one parent is living in the household
Source: EVS after calculations by Hauser/Becker 2005 after BMAS (2005), p. 21

One of the most important factors influencing employment opportunities, and generally also the level of income, is educational level. In Germany in particular, origin, educational status and parents' work status have an above-average influence on access to higher-level school, vocational training and vocational qualifications and educational studies. The chances of children from homes with a high social status studying at university is 7.4 times higher than for children from homes with a low social status. To increase educational opportunities for the latter the Federal Government raised the volume of expenditure on educational grants and subsidies from EUR 1.67 billion in 2001 to EUR 2.26 billion in 2006, which included raising the number of students receiving a grant from just under 650,000 in Jahr 2001 to 818,000 in 2006.[216]. Increases in grant levels and exemptions are currently under discussion.

Nationality and migration status also have an impact on educational opportunities for young people in Germany. Foreign children are much more likely to attend a lower secondary school than German children, and make up a higher proportion in comprehensive schools than do German children. In intermediate schools and grammar schools on the other hand the proportion of German pupils is significantly higher than that of foreign pupils. The distribution of foreign children to the various school types differs if nationalities are taken into account . The distribution of Spanish children is closest to that of Germans; Italians and Turkish children on the other hand are disproportionately frequent in lower secondary schools. There is also a difference in the level of school certificates obtained by German and foreign children. About every fifth foreign youngster leaves school without a certificate, whereas among the Germans it is only one in 12. Whereas almost 70 % of German pupils leave school with a school certificate or a higher certificate, the figure for foreign school leavers is barely 40 %. One in four German adolescents leave general school with Abitur [=A levels], but for foreign pupils the figure is less than one in 10.[217]

In a comparison of the gender of those participating in education, girls and young women have clearly made up ground over the last few years, overall they achieve the better and higher results. However, these still have no perceptible effect on the employment system or the economic status of those concerned. In the Federal Government's report on poverty and wealth, this is attributed primarily to the lack of childcare facilities.[218]

Various Federal Government measures and programmes support women's careers and encourage women to enter vocational fields in which they have previously been a clear minority. Overall the Federal Government is making efforts to create a stable framework for more growth and employment by means of participant-oriented family, social and employment policies, and hence to reduce the risk of poverty and social exclusion of affected groups of people.[219]

B.1.4.4 Possible steps to solve the issue of skills shortage and promote economic development

Besides a more equitable distribution of education opportunities, the specific aim of the existing steps and procedures to recognise non-formal and informal learning in Germany, which are described in Part A.1 of this CBR, is to be able to respond to bottlenecks in the labour market. How-

216 See Statistisches Bundesamt (Hrsg.) (2006d): Bildung und Kultur, Fachserie 11, Reihe 7, Ausbildungsförderung nach dem Bundesausbildungsförderungsgesetz, Wiesbaden, Übersicht 1.2.1. See also BMAS (Hrsg.) (2005), p. XXXIV and 253 The federal states, which carry the main responsibility for education, display a very wide range of attitudes as far as expenditure in the educational sector is concerned. In Bavaria, Baden-Württemberg and Schleswig-Holstein per capita educational expenditure is above that of the other states. The states of Berlin and Bremen on the other hand hold the lead in the areas of internationalisation (e.g foreign students at universities, international cooperations) and academisation (e.g. the ratios of students having university entrance qualifications). (See Institut der deutschen Wirtschaft Köln (iw) (Hrsg.) (2007a): Bildungsreport 2007)

217 Statement by the representative of the Federal Government for Migration, Refugees and Integration on 22.08.07.

218 See BMAS (Hrsg.) (2005), p. XXI.

219 See BMAS (Hrsg.) (2005), p. 168.

ever, the prevalence of these procedures is still only limited.

On the one hand, these are procedures in the CET system such as the external students' examination and IT continuing education and training (Section A.1.1) and on the other hand procedures in the higher education sector, in particular the second and third educational pathways (Section A.1.2). It is precisely these procedures that are critically important in the face of a lack of highly-qualified workers.

B.1.4.5 Group-specific benefit

Studies by the Institute for Occupational Research (IAB) show that the significance of competences in terms of the acquisition of knowledge and further qualifications obtained by informal means is growing, especially from the point of view of the employed. However, they also show that competences acquired via an informal route are appreciated by companies. Only recently have companies acknowledged that informal qualifications are much more meaningful than minor modifications to formal qualifications, that they form a nucleus of new types of competences.[220] Surveys among the employed have shown that qualifications acquired via formal and non-formal routes play a much larger role among higher qualified professionals (university graduates, master craftsmen, engineers, certified specialists in business fields) than competences acquired informally. However, graduates of dual study programmes at universities of applied sciences value informally-obtained qualifications more highly.

Competences acquired by informal means necessarily have a higher weighting among persons without formal vocational training qualifications. Broken down by gender and age, women value informal learning more highly than men, and the younger and older age groups consider it more important than the middle age group does. Generally there are also indications that, across all groups, people who change job more frequently also tend to expand their range of competences more through informal learning.[221]

B.1.4.6 Links between the recognition of non-formal and informal learning and the informal economy

No data is available for this area.

B.1.4.7 Entrance to occupations on the basis of recognition

As described in part A, the recognition of non-formal and informal learning opens up access to both the higher education system and the employment system in certain fields.

With the exception of the IT sector, it is not possible here to refer to selected occupations, to which access has notably been opened up on the basis of recognition, as an external students' examination, for example, opens up access to all occupations governed by the Vocational Training Act (BBiG) or the Crafts Code (HwO).[222]

The IT sector in Germany is the sector that has seen a high proportion of lateral entrants, i.e. people for whom it is not their primary qualification, since the end of the 1970s. These have mostly been people with vocational training in natural sciences, but also in business or education, who trained to become IT specialists via retraining, which is part of the non-formal sector. In 2002, 66 % of IT specialists were classified in terms of their vocational training as lateral entrants.[223]

Over the last few years, however, employment opportunities for lateral entrants have declined since there are more and more study programmes

220 See Weiß, Reinhold (2001): Kompetenzentwicklung als Herausforderung der betrieblichen Weiterbildung. In: Becker, M.; Schwarz, V. (Hrsg.) (2001): Theorie und Praxis der Personalentwicklung. Aktuelle Beiträge aus Wissenschaft und Praxis, München, p. 71–90.

221 See Dostal, Werner (2003): Bedeutung informell erworbener Kompetenzen in der Arbeitslandschaft – Ergebnisse von IAB-Untersuchungen. In: Straka, Gerald A. (2003): Zertifizierung non-formal und informell erworbener beruflicher Kompetenzen. Münster, p. 103–115.

222 See section A.1.1.1

223 See Bundesagentur für Arbeit (2006c), p. 70; for the term "lateral entrant" see also Fn 176.

and apprenticeships in this sector.[224] This meant that the group of lateral entrants needed to specialise and prepare quite specifically for individual areas of the IT industry. In this context, the new IT continuing education and training system that includes CET to become IT specialists in 29 job profiles was the ideal opportunity for lateral entrants to obtain formal recognition of the competences they had acquired non-formally and informally.[225]

B.1.5 Social developments

B.1.5.1 Changing demands for employee skills and competences

Today employees are faced with new fields of activity and a broad spectrum of duties, which frequently give rise to non-recurring requirements and demand a wide scope of qualifications and competences. In order to be able to responsibly execute their duties and reach and justify decisions in consultation with others, they need wide-reaching competences and "an understanding of technical, organisational, and economic coherences".[226] It is increasingly less possible to execute duties "from the viewpoint of a specific occupation and using only occupation-typical solution strategies". A new, complex bundle of qualifications is required – this much is largely agreed by industry, the trade unions, politicians, and academia.[227] Even the first results of a representative job advertisement analysis conducted by the Federal Institute for Vocational Education and Training, a sub-study of the "Early identification of qualification developments" project, showed "that indications have arisen of new fields of activity and new combinations of different bundles of qualifications. These new qualification packages generally call for a higher qualification level and are accompanied by increasing requirements for transferable qualifications."[228]

In relation to the change in the world of work, but also with regard to coming to terms with the requirements outside the world of work, social, methodological, action, and problem solving competences, creativity, the ability and willingness to make independent and autonomous decisions, and behavioural and organisational competence are all described as transferable/key competences which are independent of specific expert content.[229] In its recommendations on key competences for lifelong learning, the Commission of the European Communities identified eight key competences: mother tongue and foreign language competences, mathematical and scientific/technical competences, computer and learning competences, interpersonal, intercultural, and social competences, business competences, and cultural competences.[230] However one approaches it, it is clear that responsible, comprehensive performance and evaluation are increasingly needed to cope with the world of work.

Planned, self-directed informal learning is seen as a central key competence in the world of work. It has a special role in this respect as a type of learning aimed at the opening up of new subjects. In addition, it at least implies the acquisition of all other competences. The independent, timely recognition of learning requirements, the self-governed planning and execution of learning, its evaluation, and a content focus in line with current and future requirements are important pre-requisites for ensu-

224 See Bundesagentur für Arbeit (2006c), p.71.

225 See also the description of the IT Continuing Education and Training System in Section A.1.1.4.

226 See also on this and for the following: Baethge, Martin; Baethge-Kinsky, Volker (1998): Jenseits von Beruf und Beruflichkeit? Neue Fromen von Arbeitsorganisation und Beschäftigung und ihre Bedeutung für eine zentrale Kategorie gesellschaftlicher Integration. In: IAB (Hrsg.): Wandel der Organisationsbedingungen von Arbeit, Nuremberg 1998, p. 461–472, here, p. 467.

227 This appraisal encroached upon the reorganisation of occupations, and, as a rule, signified an increase in transferable qualifications.

228 Bott, Peter (2000): Erste Ergebnisse im Rahmen der repräsentativen Stellenanzeigenanalyse des BiBB. In: Bullinger, Hans-Jörg (Hrsg.): Qualifikationen erkennen – Berufe gestalten, Bielefeld 2000, p. 75–79.

229 See, for example, Baethge, Martin; Baethge-Kinsky, Volker (1998); Bott, Peter (2000); Braun, Ludwig Georg (2001) Kompetenz als Schlüsselfaktor. In: GdWZ 12 (5), p. 197–200.

230 See Commission of the European Communities (2005): Proposal for a Recommendation of the European Parliament and of the Council on key competences for lifelong learning. Brussels 10.11.2005.

ring continued employability and employment that – while it may not be uninterrupted – will certainly be sustained over the long term.

B.1.5.2 Evidence of increased uptake of modern key competences on the basis of increased recognition

The clear growth in the significance of modern key competences, such as the ability for self-directed and experiential learning and – in relation to those having a migration background – mother-tongue and/or foreign-language competences, is manifested in education-policy debates at both national and international level. However, no data is available in the form of specific measures in this area or professional advancements on the basis of additional key competences acquired. For the significance of competences acquired by informal means, differentiated by qualification groups, see component 1.4.e.

B.1.5.3 Evidence of improved democracy and citizenship on the basis of increased recognition

No data is available for this area.

B.1.6 Other contextual factors

Other contextual factors that are distinctively rooted in the German education system, and the historical development of the recognition of non-formal and informal learning in Germany, are described in detail in Part A.

B.2 Component 2: Frameworks

This section is dedicated to the European and national education-policy background to the current debate on the recognition of non-formal and informal learning. In addition, supplementary to the descriptions in Part A are put forward legal frameworks for tools to record competences and the funding structure for CET.

B.2.1 Political and legal frameworks

Two levels must be taken into account when describing the political framework for the recognition of non-formal and informal learning in Germany. As a member state of the European Union (EU), Germany has contributed to the development of documents at a supranational level which set out principles and recommendations on the development of the education landscape, especially with regard to lifelong learning, within the EU and hence also for Germany. The remarks contained therein on recognition of non-formal and informal learning, and their equivalence at national level in the "Strategy Paper on lifelong learning in the Federal Republic of Germany" by the BLK will be covered in more detail below. In addition, further important approaches in this field reflective of the debate in Germany will be presented.

European Union

Non-formal and informal learning and the resulting competences and their recognition have perceptibly gained in significance in Europe since the mid 1990s. A core component that crystallised this process at political level was the **"White paper on education and training – Teaching and Learning – towards the learning society"** published by the EU in 1995[231] in which lines of action for general and vocational education are derived from a situational analysis. Informal learning is mainly linked to vocational education, a connection that is clearly emphasized in the European Union documents below.

The **"Memorandum on Lifelong Learning"**[232] of 2000 gradually puts the official targets into practice. Six key messages are used to define objectives a structured framework for an open debate with which a comprehensive and coherent strategy for lifelong learning may be pursued. "The continuum of lifelong learning brings non-formal and informal learning more fully into the picture".[233] Formal, non-formal and informal learning therefore are not mutually exclusive; instead they complement and supplement one another, and awareness of this must first be raised. With regard to informal learning, one of the key messages of the document is clear improvement in the methods for assessing participation and learning outcomes, above all for non-formal and informal learning.

Immediately following this, in 2001 the Communication from the Commission **"Making a European Area of Lifelong Learning a Reality"**[234] was adopted, in which EU member states, Council and Commission are called upon to "identify coherent strategies and practical measures with a view to fostering lifelong learning for all".[235] In relation to informal learning, it cites various modules within such a strategy, such as the integration of non-formal and informal leaning into the arrangements for admission, educational pathways and recognition applicable in the formal sector.[236]

The **"Commission's Action Plan for Qualifications and Mobility"**[237] focuses on creating a more favourable environment for more open and easily accessible European labour markets by 2005. The fundamental challenges are the effective adaptation of vocational and general training systems to the labour market – i.e. the promotion of occupati-

231 http://europa.eu.int/comm/education/doc/official/keydoc/lb-en.pdf.

232 http://www.die-frankfurt.de/esprid/dokumente/doc-2000/EU00_01.pdf.

233 Commission of the European Communities (2000), p. 10.

234 http://europa.eu.int/comm/education/policies/lll/life/communication/com_en.pdf.

235 Commission of the European Communities (2001): Making a European Area of Lifelong Learning a Reality. Brussels. COM(2001) 678, p. 3).

236 Commission of the European Communities (2001), p. 14.

237 http://europa.eu.int/eur-lex/de/com/cnc/2002/com2002_0072de01.pdf.

onal mobility, the stimulation of lifelong learning and the lifelong acquisition of qualifications, and the improvement of systems for recognising qualifications and competences. From the point of view of inadequate occupational mobility, it is noted that problems associated with the recognition of non-formal or informal learning, both within and between member states, can be a significant barrier to mobility.[238] Consequently, against the background of these considerations is formulated the goal to "lower the barriers to the recognition of learning wherever acquired and promote the transparency and transferability of qualifications across Europe".[239]

Building on this, in 2003 was submitted a **"Proposal for a Decision of the European Parliament and of the Council on a single Community framework for the transparency of qualifications and competences (Europass)".**[240] This does not constitute formal recognition of these qualifications and competences; rather, it is a question of social recognition with the aim of increasing mobility between countries and regions, sectors and enterprises, and – in the context of lifelong learning – learning and working. The aim is to integrate existing instruments so that these documents become more easily accessible, more coherent and more well-known, since "a co-ordinated portfolio of documents (...) [has] a greater communication effect than a loose collection of separate documents".[241].The proposal defines the first five documents that should be included in the Europass portfolio. The heart of the portfolio is the "European CV"[242].

The need to establish a set of common principles for validating informal and non-formal learning processes to guarantee better compatibility of concepts in different countries and at different levels was also stressed in the Copenhagen Declaration. These **"Common European Principles for validation of non-formal and informal learning"** have existed as a final proposal of the Education and Culture Directorate-General since March 2004.[243] They are distinguished, among other things, by the fact that they "do not prescribe any particular methodological or institutional solutions as these must be tailored to local, regional, sectoral or national needs. The principles do, however, point to a set of basic requirements which it is of the utmost importance to achieve if confidence, impartiality and credibility are to be achieved and retained ".[244]

Federal Republic of Germany

The developments in the Federal Republic of Germany that are equivalent to those at European education-policy level are set out in the **"Strategy Paper on Lifelong Learning in the Federal Republic of Germany"** written by the BLK in 2004.[245] This is intended to "identify changes necessary in the individual educational sectors (...) in order to make lifelong learning a must in the educational biography of every individual"[246].

Learning is understood to mean the "constructive conversion of information and experience into knowledge, insights and competences"[247] and covers formal, non-formal and informal learning processes equally. The background to the "inclu-

238 Commission of the European Communities (2002): Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions. Commission's Action Plan for Skills and Mobility. Brussels. COM(2002) 72, p. 9.

239 Commission of the European Communities (2002), p. 17.

240 Commission of the European Communities (2003): Proposal for a Decision of the European Parliament and of the Council on a single framework for the transparency of qualifications and competences (EUROPASS). Brussels. 2003/0307 (COD).

241 Commission of the European Communities (2003), p. 8.

242 www.cedefop.eu.int/transparency/cv.asp.

243 European Commission (2004): Common European Principles for Validation of Non-formal and Informal Learning. Final draft proposal of working group "H" of the Objectives process (Making learning attractive and strengthening links between education, work and society). Brussels

244 European Commission (2004), p. 4.

245 Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung (BLK) (2004): Strategie für Lebenslanges Lernen in der Bundesrepublik Deutschland. Materialien zur Bildungsplanung und zur Forschungsförderung. Heft 115. Bonn.

246 BLK (2004), p. 9.

247 BLK (2004), p. 5.

sion of informal learning" is the acknowledgement that "most learning takes place informally in everyday life and work situations outside of educational institutions".[248]

On the one hand, therefore, the strategy is structured according to the different life phases "children, adolescents, young adults, adults and the elderly", and on the other it cites development focuses that are deemed to be essential to promoting lifelong learning. In addition to self-directed learning, competence development, networking, modularisation, learning guidance, and a new learning culture/popularisation of learning and equal opportunities, the inclusion of informal learning is cited as being of primary importance. The focus here is exclusively on informal learning; non-formal learning is not mentioned. The combination of life phases and development focuses results in a matrix that can be used to describe steps "to encourage all citizens to participate in learning during all phases of their lives and in all walks of life, at different places of learning and through many different types of learning".[249]

The "inclusion of informal learning" development focus has been firmed-up as follows for the various life phases.[250]

- Children
  Informal learning is given the greatest significance here over the course of one's life. In particular, parents and other central figures, as well as kindergarten teachers and teachers at primary school are tasked with creating a learning environment that motivates and fosters children's development.

- Adolescents
  Informal learning in this phase of life should be included in the work of the formal educational establishments. These are tasked with discussing non-school informal learning and increasing learning outcomes as part of new teaching and learning methodologies that use realistic problems and authentic situations. The relevance of learning to practical work and social life is also highlighted as important for future employability.

- Young adults
  Competences acquired in a social, vocational, cultural and personal context are an important foundation for further education processes. Informal learning acquired in this way should be further developed by means of the specific support of infrastructure measures. The documentation of competences acquired informally is therefore particularly important, especially against a background of interrupted educational careers. Educational organisations are encouraged to increasingly take up informal learning activities and to secure them with supporting measures.

- Adults
  The concept of occupational usability is the explicit focus in this phase of life. Certification and recognition of informal learning are used as a precaution against unemployment and an improved career on return to work after parental leave or unemployment. However, informal learning as on-the-job learning also contributes to an expansion of competences and the ability to cope with a dynamically changing world, both at work and outside. Last but not least, certification of informal learning is held up as an incentive for greater commitment to voluntary work.

- The elderly
  In this life phase, formal learning becomes less important. From this fact is derived the need for informal learning to be supported by CET in a way that must respond flexibly to the needs of older people.

Details and information on the creation and practical implementation, goals and principles of individual steps that are anchored on a legal basis or below regulatory level can be found in the descriptions in Part A.

The informal acquisition of knowledge has increasingly become a focus of **CET statistics** during recent years. The Reporting System on Continuing Education collected the first representative infor-

248 BLK (2004), p. 14.

249 BLK (2004), p. 14.

250 see BLK (2004), p. 17 et seq.

mation on informal learning at a very early stage. However, since then survey methods, along with the status of research on lifelong learning and competence development, have developed and become more sophisticated, meaning that statements on the development of informal learning in Germany are not currently possible. In the 2003 survey on participation in CET distinction was made between the informal acquisition of vocational knowledge (61 % of the working population) and self-learning outside working hours (35 % of the population). For more information, see sections B.1.1a and b. For the same period participation in CET/non-formal learning of a vocational and general nature was 41 % nationally, with at least 68 % of all respondents using one of these forms of learning. [251] The national education report presents the participation in lifelong learning in relation to the rest of Europe and refers to the results of the ad-hoc module on lifelong learning in the labour force. According to these results, the adult participation rate for all forms of learning is 42 % in Germany, which is well below the rate established by the Reporting System on CET. In comparison with other countries, Germany's participation rate is rather low. [252]

The **recommendations of the Education forum** (Arbeitsstab Forum Bildung 2002) predate the strategy paper mentioned above. [253] At the beginning of the 21st century, five expert commissions were implemented for twelve sectors of lifelong learning in order to formulate recommendations for the reform of the German education system with regard to the "quality and sustainability of education in Germany". In these recommendations explicit reference is made to informal learning. In "Competences as a goal of education and qualification", it is indicated that "places of informal education... newly discovered, [must] be taken seriously, organised and promoted."[254] In particular, the recommendation "Learning for life" cites this aim to the extent that "informal learning is to be more strongly integrated into the world within and outside work. The modularisation of higher educational studies and CET and new forms of certification facilitate the pursuance of education and qualifications, build upon individual pre-requisites, and enable the interconnection of formal and informal learning".[255] Although this distinguishes between formal and informal learning, there is no mention of non-formal learning here. The intended agents for the realisation of this recommendation are the Länder, Federal Government, educational establishments, and local governments. The overall aim is the development of approaches for "dismantling barriers to CET". These approaches must tie in with informal learning. According to this, appropriate methodological and technical frameworks should be created for learners. There was also a need for "new forms of certification" in which examination procedures should be linked with guidance on the continuation of learning processes. Unlike the "Strategy for lifelong learning", in this case informal learning was closely linked with the CET sector, i.e. with intentional and organised learning for adults.

One step for realising "lifelong learning for all" is described in the **BLK's "Lifelong Learning" pilot program,** which was put into practice between 01.04.2000 and 31.03.2005. At the heart of this programme was development of innovative projects that could promote a change in the learning culture and could support the necessary reorientation process in the education system. The main ideas were the strengthening of learners' individual responsibility and self-direction of learning, through the modification of educational content and delivery forms to promote learning and attendance at and participation in education. In addition to learning processes in traditional educational establishments, significant weight was placed on informal learning. Against this background and among other measures 22 projects in various educational sectors and for different target groups, and two joint projects, were supported,

251 BMBF (Hrsg.) (2006b), p. 188 et seq., 19, 219.

252 Konsortium Bildungsberichterstattung (Hrsg.) (2006), p. 126; zur Methodendiskussion, see, for example, BMBF (Hrsg.) (2006b) and Seidel, Sabine (2006).

253 See on this and for the following: Arbeitsstab Forum Bildung in der Geschäftsstelle der Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung (Hrsg.) (2002): Empfehlungen und Einzelergebnisse des Forum Bildung. Bonn

254 Arbeitsstab Forum Bildung (2002), p. 11 et seq.

255 Arbeitsstab Forum Bildung (2002), p. 24 et seq.

of which one was the project described in section A.2.2 – "Lifelong learning passport with certification of informal learning" – the ProfilPASS system. In this way, valuable knowledge could be gathered in all the important areas of lifelong learning, in the form of good practice examples, for further definition of the German educational landscape.

With the aim in mind of an educational sector-specific consolidation of recommendations on the realisation of lifelong learning, two innovation committees for vocational training and CET have recently been convened by the Federal Ministry of Education and Research. **The Committee on Innovation in Continuing Training** is a working group that concentrates explicitly on the interconnection of formal and informal learning. Among other things, this focuses on frameworks for the recognition of this interconnection in vocational training and the management of competences in companies. The concluding recommendations of the **Committee on Innovation in Continuing Training** are expected at the start of 2008. Results of the Committee on Vocational Training were published in July 2007 with the title "10 Leitlinien zur Modernisierung und Strukturverbesserung beruflicher Bildung" ("10 guidelines for the modernisation and structural improvement of vocational training").[256] It concludes that all young people who are willing and able to participate in training should be afforded the opportunity to enter training and have the chance of advancement through CET. In addition to the increase in the proportion of people graduating from universities and colleges and better development opportunities for particularly high performers, it also aims to integrate low-achieving young people into training, the qualifications system, and employment, to reduce the number of early school leavers, and to improve the career prospects of "older applicants". The term "informal learning" is however nowhere to be found – it focuses instead on learning processes organised by third parties in conjunction with a qualification. As far as recognition is discussed, this refers always to people already in possession of a vocational qualification. The goals of such recognition are improvement of transfer opportunities in the German education system and promotion of occupational mobility in the European Union.

Legal framework

In the descriptions of the individual procedures in section A.1 are concrete details and explanations of the legal bases underlying the respective steps.

In addition to this, the more general legal framework should be discussed. Reference is made to a legal opinion prepared as part of the feasibility study for the "Lifelong learning passport with certification of informal learning" collaborative project funded by the BMBF, now called "ProfilPASS".[257] This contained the legal framework for lifelong learning passports in particular and forms of documenting informally-acquired competences in general.

A distinction must first be made on whether such documentation of informally-acquired competences is mandatory or voluntary.[258] Only a mandatory arrangement would constitute encroachment into the right of privacy and freedom of occupation. If the possession of such documents were required as the basis for taking up particular occupations or positions, it would take on the nature of a "subjective regulation on entry to an occupation" in the sense of the ruling of the Federal Constitutional Court, which, under the constitution, is only permissible to protect important public commodities (BVerfGE 13, 97/107, 69, 209/218). If the options for practicing individual occupations were linked to the possession of these documents, at least a "regulation on occupational practice" in the sense of the Federal Constitutional Court's "stage theory" in relation to art. 12 GG would exist, which would need to be justified by reasonable considerations of the common good, as

256 http://www.bmbf.de/pub/leitlinien_innovationskreis.pdf – The recommendations and proposed measures of the Committee on Vocational Education will be included in the new, cross-sector national qualifications initiative of the Federal Government, which aims to meet the medium-term demand for specialists in Germany and will be presented in 2007.

257 See Füssel, Hans-Peter (2003).

258 See on this and for the following BMBF (Hrsg.) (2004a): Weiterbildungspass mit Zertifizierung informellen Lernens. Machbarkeitsstudie im Rahmen des BLK-Verbundprojektes. Bonn, p. 115–120.

well as reasons of general expedience (BVerfGE 7, 307/406; 16, 286/297).[259]

In a formal respect, it would have to be noted in these cases that under art. 12 section 1 GG, an intervention is only permissible by a law or on the basis of a law (art. 12 section 1 sentence 2), and in the case of a "subjective regulation on entry to an occupation", an act of parliament is required according to the "essentiality theory" of the Federal Constitutional Court (ruling see only BVerfGE 34, 165/192/193; 40, 237/249; 84, 212/226)[260]. The documentation of informally-acquired competences that would have the effect of a "regulation on occupational practice", on the other hand, could be introduced on the basis of an executive order law (law in the material sense).

As soon as forms of documentation for informally-acquired competences are used in companies and enterprises, regulations in individual and collective labour law could be affected. A distinction must be made between the foundations of collective bargaining (e.g. collective agreements, works agreements) and agreements relating to the rights of the individual (e.g. contracts of employment). Such forms of documentation could be introduced at company level, e.g. on the basis of works agreements. If they contain statements on the qualifications of the employees, they would have to be regarded substantively as a specific form of personnel file so that the principles for personnel files already developed in labour law could be applied to them. For example, one principle with personnel files is that information must not be disclosed to third parties without the employee's consent.

Documentation of informally-acquired competences in the hands of the employee could be regarded as a type of certificate under labour law. In this case, the provisions of labour law that apply to certificates would be applicable, although it should be noted that "the continuing education and training of the employee is not a central theme (...) in labour law"[261].

In summary, it can be established that there is a range of recognised frameworks under labour law for the formal recognition of informal learning. However, the creation of political bases for this recognition rests with political players having legislative authority at Federal Government and Länder level.[262]

One example of an act which explicitly mentions the recognition of lifelong learning (but not of informal learning) is the "Act for the promotion of CET and lifelong learning in Hesse"[263] of 25.08.2001. In referring to establishments, it mentions firstly CET establishments and then regional lifelong learning establishments and learning regions, so far as these serve CET. For the purposes of this act with regard to offerings, these establishments are urged to cooperate with schools, universities and colleges, the Federal Employment Agency, regional providers of social assistance and youth welfare services and the relevant vocational training bodies as well as with private and industrial providers of CET. CET is seen as a sector of lifelong learning, and should be developed in line with the requirements of this. The focus is on promoting personality development, strengthening ability to participate in the shaping of democratic society, and providing help in coping with the requirements of the world of work. CET should be developed in accordance with the requirements of lifelong learning – the recognition of learning requirements, realisation of learning needs and opportunities within reach of the learning environment and world of work, and learning in line with the learning biography are explicitly cited.

Here too are cited frameworks for the formal recognition of informal learning, although no politically relevant statements are made with regard to the concrete formal recognition of informal learning.

259 Füssel (2003), p. 9, Fn. 70.

260 Füssel (2003), p. 13, Fn. 95.

261 Däubler, Wolfgang (1999): Arbeitszeit – Freizeit – Lernzeit. In: Dobischat, Rolf et al (1999): Beiträge zur Zukunftswerkstatt "Zeitpolitik und Lernchancen", Duisburg, p. 77.

262 See BMBF (Hrsg.) (2004b): Weiterbildungspass mit Zertifizierung informellen Lernens. Machbarkeitsstudie im Rahmen des BLK-Verbundprojektes. Bonn, p. 120.

263 GVBl. I, 2001, p. 370 et seq.

B.2.2 Key Stakeholders

Corresponding to the many approaches are also many stakeholders, who are listed in the description of procedures in section A and described in detail as responsible institutions in section B.4.1.

B.2.3 Financial Frameworks

Data on the cost and financing of the recognition of non-formal and informal learning is not available, either as an overall figure or as sub-totals for individual procedures. Since CET is largely organised under free-enterprise conditions and is financed by a combination of companies, participants, and the public authorities, it is difficult to determine the overall cost of CET. However, sample analyses of individual sub-sectors give an idea of the expenditure and indicate that institutional funding for vocational and general CET has been reduced over the past few years.[264]

The majority of spending on CET comes from public- and private-sector employers investing in the continuing education and training of their staff. According to estimates from the second European survey on CVET (Continuing Vocational Training Survey CVTS2), spending by enterprises, private non-profit organisations and regional authorities in 2003 was EUR 10 billion. However it should be noted that this expenditure is tax-deductible for enterprises so the actual spend is somewhat lower.

The participants themselves make a further significant financial contribution to continuing vocational education and training. According to surveys and calculations by the Federal Institute for Vocational Education and Training (BiBB), it can be concluded that the level of direct spending by participants in CET in 2002 was a total of EUR 10.3 million.[265]

In 2003, the Federal Government, Länder, and local governments spent only EUR 1.2 billion on CET. This means that – following a declining trend in investment in recent years – spending was lower than in 1995. Relative to the year 2000, spending has dropped by 21 %.

The Federal Employment Agency reduced its funding for continuing vocational education and training from almost EUR 8 billion in 1996 by more than half to EUR 3.6 billion in 2004. This resulted in selection processes which led to a reduction in the numbers of women and older employees taking continuing education and training and a drastic increase in shorter courses instead of longer ones.[266]

However, these amounts are to be taken only as orders of magnitude: While the national education report claims that EUR 23.9 billion was spent on CET, the Expert Commission on Financing Lifelong Learning came to a figure of around EUR 32.0 billion – based on various studies – of which about 54 % was contributed by companies and only 18 % by individuals.[267] The methodological differences that come into play when gathering information on costs are even more significant than when reporting on participation in CET, for example the basic assumption as to what constitutes expense and what does not.

The expenditure of general CET providers[268] was EUR 1.46 billion in 2003. In their turn, they are financed by tuition fees, grants from the Länder and local authorities, and third-party funding.

With the aim of increasing overall participation in CET, improving individual responsibility for further learning, and supporting people as effectively as possible in this regard, the BMBF

264 See also on this and for the following: Konsortium Bildungsberichterstattung (Hrsg.) (2006), p. 127–129.

265 See Konsortium Bildungsberichterstattung (Hrsg.) (2006), Beicht, U.; Krekel, E.; Walden, G. (2006): Berufliche Weiterbildung – Welche Kosten und welchen Nutzen haben die Teilnehmenden? Bundesinstitut für Berufsbildung, Berichte zur beruflichen Bildung, Heft 274.

266 See Konsortium Bildungsberichterstattung (Hrsg.) (2006), p. 129, 131.

267 See Dohmen, Dieter; Hesselle, Vera de; Himpele, Klemens (2007): Analyse möglicher Modelle und Entwicklungen eines konkreten Konzepts zum Bildungssparen, Bonn, Berlin, p. 19 et seq.

268 Adult education, CET providers of the Catholic and Evangelical churches, working group of German educational establishments and the federal working group on work and life.

submitted a key issues paper on CET savings plans which was adopted by the Cabinet in June 2007. It is based on two academic reports, and developed a model with three support offerings, CET bonuses, an extension of the Capital Formation Act, and a loan for extensive CET. The declared goal of CET savings plans is to facilitate the funding of CET for as many people as possible, thereby helping precisely those groups of the population to participate who could not previously benefit from further vocational training for financial reasons. [269]

269 See at http://www.bmbf.de/de/7342.php as well as Bundesministerium für Bildung und Forschung (BMBF) (2007d): Wachstumspotential der Weiterbildung nutzen. Eckpunktepapier zur Einführung des Weiterbildungssparens, Bonn/Berlin.

B.3 Component 3: Operationalisation

B.3.1 Links to the German vocational training system

B.3.1.1 The term "Recognition of non-formal and informal Learning"

The term used in the OECD framework has been widely known in expert circles since around the end of the 1990s[270], since when its importance to German education policy and practice has grown. However, it has hardly featured in public debate thus far.

The relatively rare use of the term "recognition of informal learning" refers to the methodological problems in recording this learning.[271] Furthermore, wide-ranging didactic and pedagogical debates on learning forms and contexts are mirrored in the term learning. For this reason, therefore, academic debate tends to use the term *Recognition of competences acquired by non-formal and informal means instead of Recognition of non-formal and formal learning.*

On the one hand, recognition is understood to mean acknowledgement and, in the sense of a positive evaluation, appreciation in the workplace or by society. On the other hand, in terms of the formal education system, recognition goes beyond simple acknowledgement of learning. Recognition is defined much more in terms of credit or certification; in Germany we also refer to formal recognition.

B.3.1.2 Integration into the education system

The description recognition for competences acquired by non-formal and informal means is used by and large synonymously with the English term. Nevertheless special national framework conditions and the resulting implications have to be taken into account. According to the OECD's definition qualification-oriented CET is assigned to formal learning, while CET in Germany is often placed outside formal education which to a high degree is defined by initial training and a "vocational profile" aligned to courses and training establishments.

For informal learning, which according to expert evaluation is particular meaningful for specialist knowledge, computer knowledge and in the health care professions, there is no thorough, institutional recognition procedure guaranteeing recording, crediting or formal recognition.[272] As described in Section A, individual procedures may currently be identified that make possible access to higher education or admission to a vocationally-related final examination for people with work experience. Furthermore steps are being taken towards the necessary preliminary work for the further development of recognition procedures and above all for the *acknowledgement* of non-formal and informal learning as well as improved possibilities for their evaluation.

The German continuing vocational education and training system is to a large part well-integrated with the employment system, characterised in that not only is initial vocational training highly formalised, but there is also progressive continuing vocational education and training in the form of so-called advanced further training, or retraining. The connotation of the term "recognition" against this background is infused with the sense of entitlement; owing to the highly formalised concept of occupations and vocational training, its aim is to link into the formal education and qualification system, for example aligning examination admission and the acquisition of vocational certificates and qualifications.

With the changing requirements on the working population, the demographic changes and the departure from the normal employment history, the highly formalised system in Germany is no longer universally applicable. This has led to

270 See Björnavold (2000) for the review and systematic framework for "Recognition of skills acquired by non-formal means".

271 See BMBF (2003): Konzeptionelle Grundlagen für einen Nationalen Bildungsbericht – Berufliche Bildung und Weiterbildung/ Lebenslanges Lernen. Bildungsreform Band 7. p. 91 et seq and p. 131 et seq.

272 Brigitte Stieler-Lorenz (2002): Informelles Lernen beim Übergang in die Informations-/Wissensgesellschaft: Konsequenzen für die Unternehmensgestaltung.

competences acquired in non-organised education being increasingly respected and promoted.

The many steps and programmes to acknowledge and recognise non-formal and informal learning that have been initiated as part of education policy below regulatory level, and the progress made in developing the national qualification framework (DQF) and the first steps to develop appropriate ECVET procedures in vocational training, highlight the trend towards modernising the vocational training system with a stronger cross-sector link, in particular in the CET sector and in the context of lifelong learning.[273] The higher education reforms of recent years – especially the introduction of the credit point system (HRG amendment 2002, § 15) in consequence of ECTS – have given new impetus to the acceptance and credit of vocational qualifications towards admission to an acceleration of higher educational studies.[274]

From an academic point of view, the growing importance of work-integrated and independent learning compared with participation in traditional CET courses is stressed.[275] No correlation can be empirically proven between a decline in formalised CET and the growing significance of informal learning. Possible connections are however being discussed in further education research. The great significance of empirical learning in workplace practices is not contradictory to course-based organized further education; one the contrary, empirical studies prove that whoever carries on studying also often learns informally. There are no data available regarding the development of learning during the work process.[276] The potential for greater learning motivation is often cited as a weighty argument for enhanced recognition of informal learning, which is not sufficiently utilised for all education participants in the formal education system.[277]

There are no reliable empirical data available for Germany as to how far demand for evaluation and certification of non-formally acquired competences is increasing. It should be noted that in workplace practice, competences acquired by non-formal and informal means are fully taken into account beyond certification. This form of recognition can be evidenced by collective agreements (see A.3.2). So far not pertinent to case studies, the question has been asked as to what degree in staff appraisals, applications and decisions on internal promotions or setting salary levels competences and qualifications acquired by non-formal means have been included de facto in the decision-making process.

B.3.1.3 Different types of qualification

The recognition procedures for non-formal and informal learning that are associated with the education or employment system are set out in Part A.1[278].

Depending on the type of qualification to be acquired, these procedures can generally be divided into

- Recognition of experiential learning in the higher education system (including dual study programmes, approaches to curricular credits by a performance point system)

  and

- Recognition in the vocational qualification system (incl. qualification modules, admission to the external students' examination, advanced further training).

273 The EU agreed introduction of the credit point system "European Credit System for Vocational Education and Training (ECVET) for the recording and transferability of (school) learning outcomes and vocational experiences should be developed, specified and adapted to at the national level.

274 See Section A.1.2.4. It should be noted that in accordance with the draft law of May 2007 in the course of the reform of Germany's federal system, the Framework Act for Higher Education (HRG) will expire on 1st October 2008.

275 See BMBF (2006b) and BMBF (2003).

276 See BMBF (Hrsg.) (2006b), p. 188–205.

277 Günther Dohmen (2001): Das informelle Lernen. Die internationale Erschließung einer bisher vernachlässigten Grundform menschlichen Lernens für das lebenslange Lernen aller.

278 The procedures described in Part A.2 and Part A.3 are not primarily geared to a qualification but improve opportunities in the labour market or contribute to the visualisation of skills acquired by non-formal and informal means.

The IT continuing education system is a special case which focuses primarily on vocational qualification but facilitates comparability and integration with qualifications in the higher education system. These include, for example, the consecutive bachelor's and master's study programmes in IT[279]. IT continuing education projects such as the development and piloting of credit points were funded by the Federal Institute for Vocational Education and Training (BiBB). Accordingly, the IT continuing education system is explicitly geared to equivalence of vocational and academic qualifications and improved transfer between the systems. Almost no quantitative weight is given with regards to degree information.

In respect of integration of the procedures with entitlement to enter the qualifications system, it should also be noted that the recognition of qualifications acquired in formal learning processes is largely regulated by the Vocational Training Act (BBiG)[280]. This Act details the legal regulations on the organisation of vocational training, the recognition of apprenticeship trades, places of training, vocational examinations, further training and retraining.

In the provision of evidence of informal and non-formal learning, certificates of participation, employers' references, certificates of competences, descriptions of activities or other documentation of vocational and non-vocational activity have to date prevailed.

- For admission to external examinations employer references must prove the minimum duration of applicable vocational employment, or evidence of vocational competence must be verified in some other way. Since the pass rate of external candidates varies by vocational training sectors but is usually over 70 % (see A.1.1.1), informal learning at work is taken into account for vocational qualifications.

- When qualifications modules are used, the various courses lead to a "certificate of skills". The procedure is regulated in the Regulations on certification of preparation for vocational training (BAVBVO). According to Federal Employment Agency statistics, 103,842 young people participated in prevocational qualification modules in 2005.

- As part of continuing vocational education and training in the IT sector, particular certificates (examined by the chambers of commerce and industry or universities) can be obtained which take account of the recognition of non-formal learning incl. in work-oriented CET in the IT sector (APO-IT) which is a significant component of the overall concept of continuing vocational education and training in IT.

- For admissions to higher education studies, non-formal learning outcomes are recognised and as such certificates, employer's references or other certificates are submitted. Depending on the Land and higher education institute, sufficient for admission may for example be evidence of applicable completed further education, periods of career training employment, and an aptitude interview at the institute.

In practice, certificates are practically the only evidence of qualification used in the recognition procedures cited. These may be presented as qualification credentials or as a certificate document for a performed module (for example qualification module or task accomplishment in an honorary position). Notarised written evidence is also required for the specific credit of competences acquired (admission to higher educational studies, to an examination). Using admission to higher educational studies at a university of applied sciences as an example, these include

- Evidence of the nature and duration of completed school education and completed vocational training

279 See section 1.1.4 and Mucke, Kerstin (2004) Etablierung eines Leistungspunktsystems in beruflicher und akademischer Bildung In: Conference procedings KWB conference "Mehr Attraktivität durch Durchlässigkeit – Neue Formen der Kooperation zwischen beruflicher und allgemeiner Bildung" on 23 June 2004 in Berlin, p. 42 et seq.

280 Vocational Training Act (BBiG) in the version of 23 March 2005 (BGBl. I p. 391).

- Evidence of the nature and duration of employment (vocational training periods, work placements etc. do not count as employment)

- Evidence of relevant further and continuing academic and vocational education and training[281].

It should be noted that in addition to the procedures resulting in an entitlement, non-formal or informal learning is documented in a wide variety of evidence or certificates. Procedures such as the ProfilPASS (A.2.2) or assessment procedures (A.3.3.3) are not integrated with the formalised education and employment system. However, such evidence will probably bring increasing benefits in job interviews, internal promotions or pay grade classification. To date there is no reliable empirical information on the effectiveness of certificates, qualifications or other evidence without entitlement in the education system.

Less clear incidentally is the data situation relating to how and with what quality standards evidence of employment is documented. Relevant documents can for instance be issued by regional certification agencies. Overall more research still needs to be carried out into the area of classification and systems used for documenting and certifying lifelong learning processes.[282]

Major milestones for recognition in the education system as intended under education policy have yet to be implemented for the procedures that are primarily dedicated to acknowledging and defining competences acquired or to recognition in the labour market; there are frequently no empirical studies on relevant effects. A very different framework of demand and use of certification procedures for informal learning must be expected in the medium and long term as a result of the "Development of a credit point system in vocational training"[283] programme, for which proposals were requested in spring 2007 and which envisages projects for steps towards outcome-oriented measurement of competences and proposals for the further development of transparency instruments (ECVET etc.).

B.3.1.4 Effects of the procedures

No comprehensive "effectiveness" of the cited procedures can be determined for the education and qualification system. In both major types of qualification (recognition in the higher education system and recognition in the vocational qualification system), the history, process and results of the individual procedures are too different to analyse and summarise their effectiveness, record of results or unintentional consequences.

Many steps are in a pilot and implementation phase such that at present it is only the objectives that can be defined, rather than results and effects. The intended outcomes of the individual procedures and programmes aimed at recognition in the higher education system (dual study programmes, ANKOM, IT continuing education) are focussed on

- utilisation of potential acquired in particular segments of employment: more highly-qualified skilled workers, especially from technical/scientific occupations, some from caring occupations, whose vocational qualifications are not (sufficiently) recognised, should be motivated to participate in certified procedures with entitlements and acquire further or higher qualifications. The main background to this trend is the demand in the labour market and the skills shortage that is becoming manifest in some vocational fields.

- Acceleration of study periods and reduction in costs: Advantages emerge above all for CET financing (individuals and public authorities) with regard to the efficiency of educational activities with an anticipated increase in effectiveness or reduction in the level of educational investment.

281 E.g. general or subject-specific certificate of aptitude for higher education http://www.fh-koeln.de/studieninfos/e1154/e1228/index_ger.html.

282 See BiBB (2005) Mittelfristiges Forschungsprogramm 2005 p. 86 at: http://www.bibb.de/de/forschungsprogramm.htm.

283 BMBF (2007c): Entwicklung eines Leistungspunktsystems in der beruflichen Bildung. Ausschreibung für einen Dienstleistungsauftrag. Announcement of 28.3.2007.

- Increase in the educational level: social and economic objectives will be met depending on the success of the procedures (given maximum possible participant numbers, acceptance in the labour market).[284]

- Increase in vertical and horizontal mobility: the procedures aid transfer opportunities and vertical mobility.

- In particular, the (quantitatively admittedly still somewhat marginal) continuing education system for IT also aims for equivalence between a vocational and university education, independence of place of learning and increased participation in CET.

The focal points for the procedures with recognition in the vocational qualification system are different, however:

- The inclusion of informal learning in the qualification modules focus on equal opportunities, support for the less-advantaged and a tie-in to the formal qualification system as a whole.

- Credits towards admission to the external students' examination are mainly aimed at vertical/horizontal mobility and acceleration of study periods and cost reductions.

- Vertical/horizontal mobility for participants in education and increased participation in CET are relevant to advanced further training measures.

- Vertical/horizontal mobility is the overriding goal of retraining.

The improved transparency of educational pathways and the greater opportunities for geographical mobility (across regions and countries) do not feature predominantly on the agenda of objectives. Both objectives are cited as high priorities for the implementation of a credit point system (ECTS) at European level.

284 See section B.1.4. On the economic benefits of CET in general see Konsortium Bildungsberichterstattung (Hrsg.) (2006), p.133–135.

Despite basic research and many good approaches, the problem of how to record competences that have been acquired informally and non-formally in such a way as to increase the benefits for learners and business has not yet been solved. On the one hand, the desire for reasonable evidence of vocational qualifications that goes beyond pure subject-specific grades on certificates is well-known, but on the other in practice many enterprises and public sector employers seem neither willing nor able to make greater efforts to improve certification and credits.[285]

In addition to the pilot studies funded by the state and partially by the Länder, further developments in company assessment procedures are also relevant as they deal with improved documentation of vocational qualifications and recognition of informal learning (A.3.3.3). From an academic viewpoint, moreover, new input based on the DFG priority programme (A.2.3) can be expected over the next few years.

The actual extent to which the creation of transparency relating to non-formal and informal learning based on appropriate certification procedures will succeed – or indeed has already succeeded in some cases – will be impossible to clarify without longer-term studies, particularly with respect to the actual benefit to the participants in education and the development of demand by companies.

B.3.1.5 Development of the German qualification framework (DQR)

The reform processes in vocational training, especially the development of a national qualification framework, do not just focus on issues of handling competences acquired non-formally or informally; the national and "European challenges" for the

285 See also the BIBB document on transparency of vocational qualifications of the working group "Flexibilitätsspielräume für die Aus- und Weiterbildung" http://www.bibb.de/dokumente/pdf/a33_veranstaltung_flexibilitaetsspielraeume_bfq-fbb.pdf and the pilot project "Transparenz beruflicher Qualifikationen für den Personaleinsatz in KMU (TbQ)", by the Forschungsinstituts betriebliche Bildung (research institute for vocational training) (f-bb).

development of vocational training in Germany also play a critical role.[286].

The debate on the design of the German qualification framework has accelerated since the submission of the draft of the European Qualification Framework (EQF) that was developed by the EU Commission as a result of the Lisbon process. The aims of improved transparency over educational pathways, simplified access to the tertiary sector and more equal opportunities and transfer opportunities between the educational systems and levels are moving even closer to the centre of education-policy initiatives. The EQF as a driving force for more transparency has thus led to additional efforts being made towards greater "visualisation" of non-formal and informal learning and an expansion in crediting vocational qualifications and work experience towards post-secondary educational pathways.

The difficulties of recognition of non-formal and informal learning within the qualifications systems are equivalent to the problems that have yet to be resolved in the design of a national qualification framework[287]. Major milestones and pre-requisites for an ingrained "culture of recognition" e.g. settling on a sustainable definition of competences and options for valid recording of competences which can be implemented and which will prove themselves in practice, have not yet been achieved. Against this background it remains possible to analyse the completed interim steps to modernise the qualification systems (higher education and vocational training) and the policy documents by various stakeholders on the development of the German qualification framework to show the significance that may potentially be accorded to competences acquired non-formally and informally.

Development of a national qualification framework under the title of the German Qualification Framework (DQR) is actively under way in Germany currently. In 2007 the Bund-Länder Coordinating Group "German Qualification Framework" set up a working group with relevant players in the educational field. After submitting the results and where required following a substantial trial phase introduction of the DQR could be agreed and put into force. However a concrete timetable has not yet been developed. The concept of the DQR will closely follow the further development and adoption of the European Qualification Framework (EQF) – probably by the end of 2007 – with the objectives

- greater transparency of formal educational pathways and
- improved conditions for the mobility of participants in education and employees

A parallel development of initial steps to establish a credit point system in accordance with the ECVET is also envisaged. The ECVET concept should build on the higher education sector's experiences with ECTS and ultimately create better links between the individual educational sectors.

The multiplicity of challenges regarding classification of formally acquired qualifications at the various levels of competence, together with the definition or demarcation of these levels, should be to the fore with respect to DQR development. Relevant preliminary discussions, initial drafts and documents by representatives of the Federal Government, Länder and management and labour associations suggest there are still different understandings of the levels, their definition and numbers. The unresolved issue of how a future competence record could be structured and aligned is also a matter of controversy among academics. The recognition of competences acquired non-formally and informally – especially "work-related and cross-occupational" – is an ongoing topic in the debate around the development of the DQR[288], even if it does not figure prominently. The way in which the steps towards recognition in the sense of certification and crediting can actually be further encouraged by the establishment of the DQR, and to what extent, is not clear.

286 See HRK (2006), p. 24 et seq.

287 The national qualification framework has previously been abbreviated to NQR, but is now referred to as DQR.

288 see Hanf, Georg; Rein, Volker (2007): Nationaler Qualifikationsrahmen – eine Quadratur des Kreises? Herausforderungen und Fragestellungen im Spannungsfeld von Politik, Berufsbildung und Wissenschaft. In: bwp@, Nr. 11, http:www.bwpat.de/ausgabe11/hanf_rein_bwpat11.pdf

B.3.1.6 Potential barriers to the expansion of recognition of non-formal and informal learning in the context of the national qualification framework

The fact that in the German education system the qualifications that are obtained are comparatively specific to particular occupations and that management and labour have a major influence on the design of vocational training within the consultative political system[289], as well as the many decision-makers in the federal state, mean that specific and heterogeneous interests collide. Another factor is that universities are undergoing a fundamental reorganisation, not least as a result of the Bologna process. The CET sector is extremely heterogeneous in both legal and institutional structure.

Accordingly, fundamental systematic innovations such as are to be expected as a result of the implementation of a DQR require comprehensive consultations and co-ordination processes between the stakeholders. This co-ordination will involve the Federal Government and the Länder and the representatives of the associations and trade unions (see section B.4).

Against this background the potential barriers to increased recognition of acquired competences within a qualification framework cannot be conclusively set. It should be noted that it has not previously been possible to document the arguments of the main stakeholders involved in the development of the DQR in a relevant and systematic way. They may exist selectively and in drafts. There are no empirical studies that show the attitudes to or opinions of non-formal/informal learning and the national qualification framework.

B.3.2 Credit accumulation and transfer

To date, credit procedures (transfer and accumulation) have only been widely implemented in universities, colleges and universities of applied sciences. The universities award credit points to students for completed higher educational modules, usually following the European ECTS standard.

B.3.2.1 Credit of competences acquired through non-formal and informal learning in higher education credit procedures

The credit point systems that have been universally introduced into universities since the end of the 1990s do not have any generally and universally regulated credit procedures that specifically take account of non-formal or informal learning. In practice, however, individual credits are possible, especially for prior vocational qualifications and work experience. These credits lead to an acceleration in study periods through the award of credit points. [290] The regulations on crediting work experience, for example to reduce individual mandatory credits (such as the duration of obligatory work placements) are different from one individual university or university of applied sciences to another. As yet, little is known about the scope of credits awarded and their utilisation. To date neither a systematic pulling-together of regulations nor initial reports of experience exist.

The federal ANKOM programme (A.2.4) deals explicitly with regulated crediting of vocational competences towards higher education study programmes. It focuses on the engineering sciences, on economics and information technologies as well as on the health and social sectors. The aim is to increase participation in education and thus also the level of educational attainment. In particular, the demand in the labour market and the expected skills shortage support the development towards valuing experiences gained through employment and continuing education and utilising them for higher-level qualifications.

289 See also Hochschul-Informations-System (HIS); Deutsches Institut für Erwachsenenbildung (DIE) (2006): International vergleichende Studie zur Teilnahme an Hochschulweiterbildung. Abschlussbericht. p.89–90.

290 See also section A.1.2.4.

B.3.2.2 Central stakeholders for the recognition of informally-acquired competences towards the higher education credit point procedures

Competences acquired outside higher education are credited in keeping with the examination regulations of the relevant institutions of higher education. The responsibility usually lies with the examination boards for the study programme concerned, who are in turn advised by the faculty members teaching the programme. The competences acquired will be credited if they are equivalent to the required performance which they are to replace, such equivalence being established not by standard comparison but within the framework of a general appraisal. The basis for crediting knowledge acquired outside higher education towards higher education studies was created by a resolution of the Standing Conference of Ministers of Education and Cultural Affairs (KMK) in 2002. This states that knowledge and skills acquired outside higher education can be credited if they are equivalent in content and level to the performance level required in a programme (module) of study and if the criteria for such crediting have been verified within the accreditation process. Such credits may cover up to 50 % of relevant study requirements. The joint recommendation by the BMBF, KMK and HRK in 2003 also endorses this type of recognition.[291] The Länder have meanwhile incorporated the recognition of competences acquired outside higher education into Land law and most of them have not adopted the restriction to a maximum 50 % of relevant study requirements.

In practice, there are great differences in the way in which the crediting process is structured and organised, and apparently the process is not always transparent. It is currently not possible to establish whether this may generate meaningful discrepancies between higher education institutions or disadvantages for students due to the lack of transparency, and to what extent this system may prove adequate for high student numbers.

B.3.2.3 Award of credit points at universities

ECTS points are a measure of how the students' annual study time is distributed over the credits to be earned. The original ECTS model works on the basis of 1500 to 1800 hours of work each year. Calculation of the requisite work is on the basis of the total time taken for studying, and also includes in addition to attending lectures and seminars, preparation time and self-study. ECTS points are assigned to all components of a study programme (modules, courses, work placements, thesis). They can relate to learning outcomes that have been acquired informally (Bologna Declaration 1999).

In Germany, the upper threshold of 1800 hours' workload a year is often used as a basis, with the acquisition of 60 ECTS points (each year). Therefore a module attracting 5 ECTS points would represent one twelfth of students' work in the year.[292]

B.3.2.4 Incentives to gain credit points

Since the advanced modularisation of the German higher education system and the introduction of bachelor's and master's study programmes, the acquisition of credit points is the general pre-requisite for successfully completing higher educational studies. The incentives for acquiring credits for learning achieved outside formal study are reduced study time, possible reduction of work effort and increased learning motivation e.g. through self-selected activities.

B.3.2.5 Credit point system in vocational education and training

A credit point system comparable to the ECTS established in universities is not yet a reality in vocational education and training. The Federal Ministry of Education and Research (BMBF), which is responsible for large parts of vocational education and training, has initiated a medium-term

291 Joint recommendation 2003 by the BMBF, KMK and HRK to the institutions of higher education to award credit points for further vocational training and credit towards studies in higher education of 26 September 2003.

292 See HRK (Hrsg.) 2006, p. 146.

conversion to an appropriate credit procedure. This development is related to the definitions for a European ECVET concept which aims at comparability of qualifications and performance and is intended to promote international, regional and occupational mobility. At the same time, because of Germany's relatively highly formalised vocational training within a system equipped with plenty of vocational practical components, it is faced with special requirements to improve transparency, comparability and transferability as well as mutual recognition of qualifications acquired vocationally and at school.

The pilot initiative launched by the BMBF envisages the development of a credit point system for VET which is intended to be structured similarly to the credit point system to comparability of qualifications in higher education. The first step completed was the request for proposals to develop appropriate credit point models[293]. The corresponding promotion initiative is mainly geared to training enterprises, vocational training providers and chambers of commerce and crafts which are regarded as potential applicants for the pilots of preparatory projects and measures in individual industries.

In addition to evaluation for the purpose of improved transparency of formalised vocational education and training, the route to a credit procedure based on ECTS and ECVET is therefore expected to include non-formal and informal learning within the broader segment of training and CET and to integrate it into the award of credit points. The text of the BMBF's RFP initially focuses on the creation of "more flexible access and transfers within vocational education and training" but also emphasises that it will include the key points and quality criteria adopted at European level for the VET credit point system. The European ECVET concept plans explicitly to create an information system "to help individuals take full advantage of learning acquired, in particular as a result of transnational mobility, whether the context was formal, non-formal or informal"[294].

The BMBF RFP for the development of credit point systems in VET highlights the co-operation with relevant initiatives that contribute to the preparation of recognition procedures. "(...) when working on these tasks, results of existing programmes and projects, such as the BMBF pilot initiative for 'Credit of vocational competences towards higher education study programmes', the BLK programme for 'Development of a credit point system in higher education' and the DFG priority programme 'Skills models for recording individual learning outcomes and for reviewing educational processes' must be included as far as possible"[295].

In summary, it should be noted that the steps in the procedures described in Part A can only partially be regarded in the context of the "technical procedures" presaged by the development of the national qualification framework and the establishment of the credit point system based on ECTS – and also for VET in future.

B.3.2.6 Integration of non-formal and informal learning into the higher education system

Individual examples of the award of credit points for learning outcomes achieved outside higher education can be found in Section A.1.2.4. However, there is as yet no quantitative data on credits awarded to practical experience in universities in Germany.

B.3.3 Assessment methods and procedures

Assessment methods and procedures are described in detail in section A.3.2.3.

293 BMBF (2007c): Entwicklung eines Leistungspunktesystems in der beruflichen Bildung. Ausschreibung für einen Dienstleitungsauftrag. Publication of 28.3.2007. For a period of 30 months pilot projects with an orientation towards practical experience are being promoted which are intended to develop and test out a credit point system. The deadline for tenders ended on 28 June 2007.

294 See EU Commission (2006), p. 3.

295 BMBF (2007c).

B.4 Component 4: Stakeholders

The identification of the stakeholder has to differ from the specifications of the OECD framework, as the relationships between players and providers of non-formal and informal learning, their impacts on acknowledgement and recognition in relation to the changes in the education system and the effect on its users has to date had little empirical investigation. Understanding of the stakeholder's impact with respect to the acknowledgement of equivalents and the recognised integration of informal, non-formal and formal learning is only at the outset, as society consensus to date has been that the German education, training and lifelong learning system is highly formalised in curriculum and structure and is compatible with the requirements of the employment system.

For these reasons, presentation of the education policy positions on "non-formal learning" and "informal learning" will be reduced to central players, and the picture leans more on the their accompanying open discussion process and the presentation of their structures and co-determination options in this field of educational policy.

The term "stakeholder" can be extended beyond the education, social and economic political players to include non-formal learning providers, which are given in a systematic form. Their offerings extend to all forms of learning and all content of general and vocational training. The OECD requirement for evidence of the providers "output/skills" cannot be followed, since they are not in the education system, and are only verifiable to a very limited extent in the employment system. "Micro-level data" on users of the acknowledgement and recognition systems are illustrated in their various occurrences in the relevant sections.

B.4.1 Characteristics of Stakeholders

In Germany, the stakeholders involved in education policy are concentrated in key central players: representatives of the executive (Federal and Länder governments) and legislative (parliaments) as well as both parties to the collective agreement (employers' and employees' organisations), the institutions of higher education and other institutions in which the various levels of political decision-making collaborate. These players take part in all the decision-making processes for the acknowledgement and recognition of non-formal and informal learning in various roles.

The parties to the collective agreement above all have a great deal of impact on questions of recognition in the areas of vocational training. Their significance can be shown, for example, in the examination entitlement for the outcome-oriented vocational examination, which lies with the "competent bodies" as public law institutions (chambers). They certify the vocational school certificate and employer's reference and set definitively the intentionally-organised vocational education and training on behalf of the state. The institutions of higher education are largely autonomous in the provision of training and they provide for the crediting of competences acquired outside universities towards higher education studies by adopting relevant statutes under Land law.

B.4.1.1 Institutions of the Executive and Legislative

Since Germany has a highly federal structure, stakeholders on the part of the executive forming the content of education policy must be separated into representatives of the Länder and of the Federal Government. The responsibility for common questions of the Länder is found in the Ministers of Education in the Standing Conference of Ministers of Education of the Länder (KMK). Decisions on binding legal reform on education policy are taken in the German Bundestag and in Länder and local authority parliaments.

Federal Government and Federal Level

The Federal Ministry of Education and Research (BMBF) is responsible for education policy, especially issues of VET policy, but the Federal Ministry for Employment and Social Affairs (BMAS), the Federal Ministry for Economics and Technology (BMWi), the Federal Ministry of the Interior (BMI) and the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (BMFSF) are also responsible for some areas.

Cross-nationally, joint projects on quality assurance and certification of qualifications and

competences acquired non-formally were supported as part of the BLK pilot programme of lifelong learning (2002–2007). (A.2.2) The BMBF together with the Länder is running the "Learning Regions – Providing Support for Networks" programme, which is intended to stimulate further development of the education system with education policy. Support is being provided to build up regional networks in which education providers and the market can work together on a long-term basis across the organisational boundaries of the various providers and across previously-separate educational sectors.[296]

The goal is to develop options for the future of CET in Germany within the current legislative period of the German Bundestag (German lower house) under the supervision of the BMBF alongside the Committee on Innovation in Vocational Training. Experts from science and practice have until autumn 2007 to develop recommendations to encourage continuing education and training. The focus of one of the working groups is the link between formal and informal learning. The declared goal is to create the conditions for translating informal learning processes for the system of formalised qualifications by means of a new frame of reference. The issue of how informal learning processes are used by individuals and the extent to which self-directed informal learning can also stimulate a transformation in formal CET offerings in companies will also be addressed. Against this background, the focus includes the following aspects:

- pedagogical aspects (forms of learning, change in learning culture)
- measurement and recognition of skills
- framework: structural and organisational development.[297]

Länder/Länder Level

The Standing Conference of Ministers of Education and Cultural Affairs for the Länder in the Federal Republic of Germany (KMK) is a federation of Länder ministers or senators responsible for education and childcare, universities and research. It is based on an agreement between the 16 Länder.

In respect of the KMK's responsibilities, it is significant that under the Basic Law of the Federal Republic of Germany of 23.5.1949, responsibility for education and culture essentially lies with the Länder (independence of the Länder in cultural and educational matters). According to its standing order, the KMK deals with "matters of education policy, higher education and research policy as well as cultural policy of inter-regional significance for the purpose of creating a common opinion and will and representing common interests". For example, it attends to the regulations on obtaining of educational qualifications at secondary level II at a later stage, but not during the period of compulsory education.

One of the KMK's essential responsibilities is to ensure maximum mobility, transparency and transfer opportunities in the education system for learners, students, teachers and academics through the consensus and co-operation of the Länder. The jointly agreed level should permit experiments and innovations. Owing to the great regional and economic disparities in the Länder, innovations in education policy such as the acknowledgement and recognition of informal learning require longer processes to achieve universal national implementation. The new Länder-AKTIV portal provides a summary of the many support projects and programmes in the Länder in the school-work transitional field. In addition, the online offering includes a wealth of practical materials and examples of good practice.

The often differing interests of the Federal Government and Länder make at least the co-ordination processes more difficult, but also more politically sustainable and lasting once a decision has been made. For new topics such as the recognition of informal learning, this means before codification a longer discourse on education policy that weighs up the arguments, mobilises resistance and makes necessary a coordination process with other relevant groups in society.

296 See Section B.1.

297 BMBF (2007a), p. 294.

B.4.1.2 Parties to the Collective Agreement

The principle of consensus is the predominant principle of the design and organisation of vocational continuing education. For almost all initiatives of a content and structural nature, the parties to the collective agreement are included in the political decision-making process. Neither the employers' nor employees' associations act as monolithic entities. The stakeholders have an open-minded approach to regulatory decisions, especially in connection with the implementation of the education-policy mission of lifelong learning, the associated efforts towards more transfer opportunities and transparency including informal and non-formal learning. Some of the most important stakeholders in industry, who have come together in employers' associations or trade unions, are listed below. They are players with a dual role: they have different roles in the codification of processes to acknowledge and recognise informal, non-formal and formal learning, but are also providers and users of non-formal learning processes.

Important German Employers' Associations

Kuratorium der Deutschen Wirtschaft für Berufsbildung (German Industry Board for Vocational Training – KWB)

The German Industry Board for Vocational Training co-ordinates and represents the positions and interests of the business associations with the highest memberships and influence in vocational education and training. In the Board the following central organisations of German Industry are brought together: Confederation of German Employers' Associations (BDA), Association of German Chambers of Industry and Commerce (DIHK), German Retail Trade Federation (HDE), German Central Association of Skilled Trades (ZDH), Federation of German Industries (BDI), Federation of German Wholesale and Foreign Trade (BGA), Federation of German Independent Professionals (BFB) and German Farmer's Federation (DBV).

Its activities focus on the following:

- Positions on education policy and statements by business on vocational training;
- Modernisation procedures/co-ordination of new occupations for the regulations for training and CET for business;
- Public relations – events, publications, information on vocational education for their own member associations, and lobbying in the connection with education policy players in the government bodies and parliaments;

Currently, a special project is being promoted increasing the significance of continuing education that provides for the development of tools for qualification consultancy for sector, small and medium business (financing: BMBF; control; Research Institute for Vocational Education (f-bb)/KWB) In this company consultancy situations are analysed, elaborated and transferred, to make consultants and companies more sensitive to the need for regular CET.

To clarify the impact of the individual organisations on education, vocational training and CET policy the DIHK, ZDH, HDE and BDA are presented as examples.

Association of German Chambers of Industry and Commerce (DIHK)

The Association of German Chambers of Industry and Commerce, and the 81 Chambers of Industry and Commerce (IHKs) having regional responsibility which it comprises, speak for over three million companies of all sizes and sectors for whom membership of these chambers is a legal obligation.

The state has transferred various tasks to the IHKs. This includes inspection and approval of examinations for vocational training, provision of consultancy on CET, cooperation in the appointment of commercial judges etc. Final examinations are taken before IHK committees, including external examinations (A.1.1.1), but also interim examinations to appraise progress during training, and further training examinations held by the IHK's. Furthermore, training consultancy is a key activity of the chamber of commerce and industry, in which the member companies are supported in all questions of training. The IHKs provide opinions to the Public Employment Service or employers as to whether and to what extent a foreign

Table 21: Business, Employees, Turnover and Trainee situation in Crafts 2006[298]

2006	Companies Including Subsidiaries	Employees in 1,000 s*)	Turnover incl. VAT in EUR bln*)	Trainees
Crafts	947,381 (+2.6%)	4,784 (-0.8%)	482.7 (+5.9%)	476,542 (-0.1%)
Of which full crafts requiring permit (Appendix A)	603,443 (+0.5%)	3,608	432.2	–
Of which permit-free crafts (Appendix B1)	149,981 (+15.7%)	845	36.2	–
Of which permit-free trades similar to crafts (Appendix B2)	193,474 (+0.3%)	331	14.4	–

*) Estimated
Difference in craft companies turnover = turnover in Appendix A, simple activities 483 businesses ZDH, Federal Statistical Office, own calculations

examination certificate or a certificate of proficiency is comparable with a German vocational qualification and so make a valuable contribution to the possibility of foreign examination certificates being graded and evaluated in Germany. In their dual role as training providers, they provide many CET courses in their own training centres – particularly in CVET: Overall some 350,000 people a year take advantage of the IHK CET offerings, which prepare for formal qualifications but also certify skills acquired by non-formal and informal means. The IHK online academy has a Germany-wide eLearning offering.

German Central Association of Skilled Trades (ZDH)

The ZDH brings together 54 chambers of crafts, 38 central professional associations and major German business and academic establishments for craft professions.

The organisation represents the interests of all the craft professions to the national parliament, federal government and other central authorities, the European Union (EU) and international organisations.

Membership of the ZDH is a legal requirement for craft businesses. As training providers the organised crafts contain over 500 vocational training centres and chamber/guild academies. After their own positioning, company success and attractive career prospects are the decisive goals for CET, and are obligatory for the principles of the “learning company” and “lifelong learning”.

German Retail Trade Federation (HDE)

The German Retail Trade Federation (HDE) is the central organisation for around 410,000 independent enterprises employing a total of 2.7 million people. Retail is the third largest business sector in Germany behind industry and skilled trades. Membership is voluntary.

Federal, Land, regional and specialist associations work under the umbrella of the HDE, which provides for its members amongst other things business advice centres, 35 specialised technical schools and retail training centres, advertising alliances etc.

298 Trend in operating figures in craft (Appendix A, A simple activities, B1 and B2) differentiated by federal Länder, trade associations and professions (trades). Comments and time series are also included. The data come from the craft organisations (operations, training) and from the statistical offices of the Länder and the Federal Statistical Office (turnover, employment).

Confederation of German Employers' Associations (BDA)

The BDA is a federation of associations of private-sector employers and is made up of 54 trade associations and 14 regional associations. Membership is voluntary. The organisation is involved in committees at national, European and international level, in expert consultations, in the social security self-regulatory bodies, as a co-ordinator and adviser in collective bargaining negotiations for member associations and as an intermediary in public debate. It is also a point of contact for its members and the public and also particularly for federal government and national parliament in all issues of social and collective bargaining policy, labour law, the labour market, education, personnel and social policy including European and international social policy and therefore all issues relating to the acknowledgement and recognition of informal and non-formal learning as well.

A separate C(V)ET department is focusing on the following topics: Youth and adult education, new occupations and qualifications, lifelong learning, quality assurance, on-the-job learning, deregulation, and the European education area.

Important German Employees' Associations

The largest representative of organised employees to employers' associations in industry is the German Trade Union Federation (DGB). It represents eight individual trade unions to political decision-makers, parties and associations at national, Länder and local level. It also co-ordinates union activities. As an umbrella association, it does not conclude any collective agreements but has an education policy department and, like the business associations, acts in a dual role with other individual trade unions with its education and CET offerings with regard to non-formal learning.

The member unions of the DGB negotiate collective agreements with employers covering issues such as pay and working hours.

Table 22: Member Numbers of the DGB Trade Unions 2006[299]

Trade Union	Total
IG Bauen-Agrar-Umwelt (construction, agriculture and environment)	368,768
IG Bergbau, Chemie, Energie (mining, chemical and energy)	728,702
Gew. Erziehung und Wissenschaft (German Education Union)	249,462
IG Metall (metal)	2,332,720
Gew. Nahrung- Genuss- Gaststätten (food and restaurant workers)	211,573
Gew. der Polizei (police union)	170,835
TRANSNET (transport)	248,983
ver.di (United Service Union)	2,274,731
DGB Total	**6,585,774**

Source: Member statistics (as at: 31.12.2006)

B.4.1.3 Institutions of higher education

The 339 state and state-recognized institutions of higher education are largely autonomous in running study programmes for 1.98 million students under the relevant provisions of Land law. The freedom of academic teaching is derived from the constitutional freedom of science as stipulated by the German Basic Law; the academic community can therefore decide freely about recognition and crediting within the framework of its responsibilities described above in section 3.2.2. Freedom of academic teaching is also the leitmotif of current efforts to reform higher education, which aim to reduce the state's involvement in the details of higher education management and to increase the institutions' own scope for action. Yet a close link is retained as higher education institutions will continue to be financed largely from state funds.

299 Source: http://www.dgb.de/dgb/mitgliederzahlen/mitglieder.htm. The member numbers from 2006 of the individual trade unions approximately reflect their membership status in the DGB. The

The traditional mission of institutions of higher education, which is to offer academic training qualifying graduates for a specific profession, is being strengthened by study reform efforts within the framework of the Bologna Process. In contrast to their role in vocational training, the employers and trade unions play an advisory role here in the development of study programmes and act as partners in quality assurance. Their involvement is largely not formalized.

German Rectors' Conference (Hochschulrektorenkonferenz, HRK)

The German Rectors' Conference (HRK) is the voluntary association of state and state-recognized universities and other higher education institutions in Germany. It currently has 259 member institutions. Around 98 % of all students in Germany are enrolled at these institutions.

The HRK is the voice of the institutions of higher education vis-à-vis politics and the general public as well as the forum for the institutions' joint opinion-forming process. The HRK addresses all topics relating to the responsibilities of higher education institutions: Research, teaching, studies, continuing academic education, knowledge and technology transfer, international cooperation and self-administration.

B.4.1.4 Collaboration by the Federal Government, Länder and Other Stakeholders

Bund-Länder Commission

The BLK (Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung – Bund-Länder Commission for Educational Planning and Research Promotion) is a government commission and works together closely with the KMK. The reform of Germany's federal system that came into force on 1 September 2006 and the associated fundamental amendment to article 91 b GG (Basic Law for the Federal Republic of Germany) changed the constitutional framework for the BLK's work.

The former joint task of educational planning no longer applies with the amendment to the Basic Law. Instead, the new version of article 91 b section 2 GG empowers the Federal Government and the Länder to work together on the basis of agreements to define the performance of education in an international comparison and to prepare reports and recommendations related to this. This collaboration between the Federal Government and the Länder is effected in organisational forms other than the BLK. The former joint task of research promotion has been supplemented and specified more precisely as follows by the reformulation of article 91 b section 1 GG: The Federal Government and the Länder can work together on the basis of agreements in cases of inter-regional significance in the following areas[300]

1. to promote scientific research institutions and projects outside universities

2. to promote scientific projects and research at universities

3. to promote research structures at universities including large-scale research facilities.

What effects the reform of Germany's federal system will have on the organisation of the education system cannot yet be stated.

BLK publications containing appropriate recommendations have prompted the further development of (continuing) vocational education and training taking account of non-formal and informal learning[301]. The publications make it clear

delegates at DGB congresses derived from this may illustrate how the division of power is represented in relation to the orientation of the contents of education policy within the DGB trade unions.

300 The federal and Länder science ministers had planned to set up a Joint Science Conference to perform these activities which was supposed to have superseded the BLK from 1 January 2007.

301 BLK (2004d): Neue Lernkonzepte in der dualen Berufsausbildung, Abschlussbericht des Programmträgers zum BLK-Programm, Heft 113. BLK (2004c): Kooperation der Lernorte in der beruflichen Bildung, Abschlussbericht des Programmträgers zum BLK-Programm, Heft 114. BLK (2004): Strategie für Lebenslanges Lernen in der Bundesrepublik Deutschland, Heft 115. BLK (2004b): Selbst gesteuertes und kooperatives Lernen in der beruflichen Erstausbildung (SKOLA), Gutachten und Dossiers zum BLK-Programm, Heft 120. BLK (2005a): Bildung für eine nachhaltige Entwicklung

that the combination of life phases and development focuses seeks to counteract the separation of the individual educational sectors.

Bundesinstitut für Berufsbildung (Federal Institute for Vocational Education and Training)

The Bundesinstitut für Berufsbildung (BIBB – Federal Institute for Vocational Education and Training) was founded in 1970 and is legally subordinate to the Federal Ministry of Education and Research (BMBF). Its legal basis today is the Vocational Training Act of 23 March 2005, describing the duties of the institute. Research and development in CVET are statutory duties of the BIBB in the same way as its guidance and service provision functions.

Five core topics are currently determining the work of the federal institute:

- Training market and employment system,
- Modernisation and quality trends in vocational training,
- Lifelong learning, transfer opportunities and the equivalence of educational pathways,
- Vocational training for specific target groups,
- Internationalisation of vocational training.

The BIBB is incorporated into the development of the DQR and in the programme for the crediting of vocational qualifications on study programmes, and has been employed in research projects and in the supervision of pilot studies for the recognition of competences acquired non-formally and informally.

The Board of the Federal Institute for Vocational Education and Training has the duty of advising the federal government on fundamental questions of vocational education and training, the opportunity to issue opinions on draft vocational education and training reports, and provides recommendations on the individual application of vocational education and training law and opinions on draft training regulations prepared by the federal institute. Board recommendations are particularly relevant with respect to the recognition of non-formal and informal competences.

The Board is composed of representatives of employers, employees and the Länder, and of the Federal Government. The Board is not subject to any instructions in the performance of its activities.

Federal Employment Agency (BA):

The BA undertakes comprehensive service provision duties for those able to work and for companies and institutions for the employment and training market. A nationwide network of employment agencies and agencies exists to implement the tasks associated with this. As a self-governing body incorporated under public law, the Federal Employment Agency performs its duties on its own authority within the relevant legal framework. The BA's central body of autonomy is the board of governors. It comprises a tripartite assembly of voluntary representatives from employees, employers and public bodies.

The Federal Employment Agency's main tasks are:

- Placement of training places and jobs
- Careers advice
- Employer guidance
- Promotion of vocational education and training
- Promotion of continuing education and training
- Promotion of vocational integration of the disabled
- Working to maintain and create jobs and
- Payment of benefits such as unemployment insurance or insolvency allowance.

("21"), Abschlussbericht des Programmträgers zum BLK-Programm, Heft 123.

Table 23: Examples of the Promotion of Training in the Expenditure of the Federal Agency for Employment and the Federation for the Year 2005 (in EUR millions)[302]

	Germany	West Germany	East Germany
Promotion of vocational education and training (assistance in vocational education and training, preparatory training courses, assistance in supervising training, vocational education and training in institutions outside the company)	1,960.6	1,003.3	957.2
Crash programme to combat youth unemployment	39.3	15.5	23.8
Promotion of vocational training (measure costs, maintenance grant (2005: residual), unemployment insurance for vocational training (new from 2005))	1,788.2	1,199.8	588.5
Services for promoting participation of disabled people in working life	2,641.0	1,946.2	694.8
Free promotion (Section 10 SGB III)	81.1	48.9	32.2
Integration services in accordance with the SGB II (Federation; new from 2005)	2,574.8	1,274.2	1.300.6

The Federal Employment Agency also carries out labour market and occupational research, it observes and reports on the labour market and keeps labour market statistics. The promotion of CET courses through the Federal Employment Agency applies in cases in which the training provider maintains the requirements of the third volume of the Code of Social Law §§ 84–86 and is certified in accordance with AZWV (Recognition and Admission Regulation on Training).

In addition to guidance and support services on integration of people of working age into the labour market, the Federal Employment Agency's database on (continuing) vocational education and training is maintained in Nuremberg. With almost 600,000 activities of around 20,000 education providers it is the largest of its type. The main focus is on continuing vocational education and training. The standardised display format in KURSNET makes it easy to directly compare several courses.

B.4.2 Offering Structure of Players in Non-Formal and Formal Learning

In the non-formal learning sector, the collective agreement partners, the Federal Government and the Länder also act as providers of further training and CET together with many other non-state providers and autonomous universities.

The providers of non-formal and formal learning via further training, who often are also players in regulation and control, can be classified

302 See www.pub.arbeitsamt.de/hst/services/statistik/000100/html/jahr/arbeitsmarkt_2005_gesamt.pdf, p. 136, Tab. II. E.6. The measures in vocational education and training shown in the table are areas of active work promotion and are duties undertaken by the Federal Agency for Employment.

by the structural characteristics of financing/promotion and sponsorship[303]

The structural characteristic "financing/promotion" of CET results in the following differentiation:

1. Publicly promoted CET, which includes
   - vocational training promoted by the European Union through the European Social Fund;
   - vocational and non-vocational CET, for example, in the form of pilot projects and advanced further training ("Advanced Further Training Assistance Act")
   - non-vocational and vocational CET promoted by the Länder, which is regulated in the relevant CET laws;
   - institutional promotion undertaken by local government.
2. CET promoted through private or public organisations or corporations, which are in turn financed from membership contributions or compulsory contributions, such as the
   - vocational CET promoted by the Federal Employment Agency for AFG/SGB III;
   - predominantly vocational CET promoted or financed by associations, chambers and social partners.
3. Vocational CET financed by companies
4. Non-vocational and vocational CET financed by individuals

The list clarifies the many different types of finance for CET. As well as the various forms of publicly promoted CET it is industry and also the individuals themselves that contribute to the financing of CET. In practice, differentiation by source of finance is sometimes fuzzy, as financing is frequently mixed.[304]

Characteristic for the CET sector in Germany is the multiplicity of providers. For clarity, in the following the institutions are grouped – one of many possible categorisations – and keywords given for characteristics and main areas of interest.

- Adult education centres
  Adult education centres are found in local authority sponsorship or organised as an association. The courses offered are aimed at anyone who may be interested. Although traditionally non-vocational offerings predominate, vocational provisions leading to a certificate have gained in importance.
- Institutions in denominational sponsorship
  Protestant and Catholic adult education Institutions form a component of the public CET system. Institutionally, they embody a wide variety: Home adult education centres and academies, regional training centres and family training centres, regional and local education organisations are the central institutional forms. Main topics of interest are in the areas of political education, theological education, parental and family education and musical-cultural education.
- Institutions in trade union sponsorship
  The trade union institutions concentrate on vocational and political CET and on training of officials. Whereas the first two areas are open to anyone who is interested, the training of officials is geared towards trade union members.
- Rural adult education establishments
  Rural adult education establishments operate primarily in rural area and in the outer suburbs of large cities. The courses are open to anyone who is interested. The content is mainly focussed on vocational and political CET and dealing with education, family, household and health questions.

303 The following classification and commented typification were taken on by Seidel, Sabine (2005), unpublished.

304 See section 0.

- Establishments in sponsorship of employers
  Educational effort in industry is organised as associations, the most significant member groups of which are employers' associations and individual companies. As well as vocational CET, courses in social and general topics are also provided. As the educational work of industry is recognised as serving the public, it also receives state support in the same way as other establishments. Participation is open to anyone who is interested.

- Establishments of the second educational pathway
  Evening classes of various types and colleges are supported and promoted publicly. Voluntary attendance at these establishments is aimed at the mature acquisition of a school certificate and is classified as CET.

- Private institutions
  Designated as private institutions are privately organised companies that provide CET. Here is found a broad range of curricular key topics, however vocational CET is dominant. Private institutions includes, for example, language schools, private specialised technical schools and executive further training institutions. The private nature of the establishments does not necessarily mean that no public promotion is given. Attendance is generally voluntary and open in principle to all.

- Schools of vocational further training under public sponsorship
  As well as private specialised technical schools are also those sponsored publicly. Attendance here is voluntary and open in principle to all. As prerequisites for attendance at a specialised technical school, be it in private or public sponsorship, relevant vocational education or a relevant practical vocational activity, and as a rule additional vocational practice, are required.

- Establishments for CET in distance learning
  Distance learning establishments are set up commercially and predominantly provide courses irrespective of the place of learning focussed on vocational training, but also have general educational content. Also provided are preparatory courses for mature acquisition of school qualifications.

- Companies
  In contrast to the groups of establishments so far looked at, CET is not a primary role for companies. Generally, internal CET serves to cover an existing or emerging qualification deficit. To that extent it belongs mainly to the area of updating training. Advanced further training and qualification-related CET however are also undertaken internally or externally by companies. Public promotion is rather the exception. Those participating are generally limited to employees. Very large companies have their own training departments, and some even their own training establishments.

- Public sector
  For the public sector the same typification exists in principle as for private companies, the difference being that the question of public sponsorship and promotion does not arise. Similarly to large companies, the public sector also has training departments and special CET establishments.

- Chambers
  The chambers of industry and commerce, of crafts, of agriculture and of "independent professionals" provide a variety of courses for updating training and advanced further training. The three first mentioned groups of chambers also conduct retraining. The content focus is on vocational CET, political and other topics being the exception. Generally, the offering is open to all who are interested.

- Employers' associations
  On the one hand, the employers' associations function as sponsors of legally independent educational establishments – the educational organisations mentioned above – while on the other regional or specialist associations run CET courses for their members on social policy and specialist problems.

- Industrial and professional associations
  Many industrial and professional associations conduct a wide spectrum of CET courses for their members or member establishments, but

also for anyone who is interested, on the whole covering vocational topic areas.

- Vocational promotional establishments
  Vocational promotional establishments are establishments for the vocational inclusion of disabled adults. Providers are generally charitable associations or foundations, but may also be corporations or the public sector. The offering is allocated to closed CET, as the allocation of participants is undertaken by rehabilitation providers.

- Colleges, Universities of Applied Sciences
  Universities of applied sciences and colleges provide CET in three fields: CET for employees is a form of internal CET or as the case may be public service CET having the relevant typifications. Continuing educational study represents a form of vocational CET at the level of a university of applied sciences or college. In addition, the university capacities are also used for offerings to wide strata of the population, in which through seminar course centres in cooperation with other CET establishments courses are provided and conducted and for which responsibility is accepted.

- Other CET establishments
  This includes such institutions which do not primarily pursue training purposes, such as all types of parties, clubs and associations. Public promotion is not uncommon because the topics are frequently in the general interest. Generally, the offering is open to anyone who is interested.

This categorisation of CET providers clarifies the plurality and multifunctionality of providers. As they are limited to vocational or non-vocational CET only in exceptional cases and, in addition, the delineation of both categories depends on how it is looked at, the most that can be stated is the predominant orientation of a provider.

The separation between the two areas of "vocational" and "non-vocational" or "general" has recently raised fundamental questions, as reflected herein, from the point of view of the trend towards the breaking down of boundaries; division of life into two parts, the vocational and that outside employment, is no longer seen as modern.[305] The main reason for retention of the differentiation lies in federal responsibility for employment law and vocational training on the one hand, and the cultural sovereignty of the Länder on the other. The functional difference between "vocational" and "general" CET reflects different benefits and structures of interest. To this extent they also underlie other legitimisation criteria for the application of resources.

B.4.3 Access to the Recognition Process

Access to the different procedures and the relevant levels are described in detail in Part A.

B.4.4 Participation

No overall figures are available on participation in procedures to recognise skills acquired via non-formal and informal routes. Participation rates or figures, as far as they are available, are given in section A, broken down according to the individual procedures.

305 See Faulstich, Peter: Ressourcen der allgemeinen Weiterbildung in Deutschland. Hrsg.: Expertenkommission Finanzierung Lebenslangen Lernens, Bielefeld 2004, p. 25 et seq.

B.5 Component 5: Case Studies in Benefits and Barriers

Current developments and opinions in Germany will be described to show the benefits and barriers to the recognition of competences acquired by non-formal and informal means. The examples taken from practice are to illustrate procedures of biographical competence determination and an employment-concurrent concept on later qualification. The studies into the benefits of CET presented below are based on individual opinions.

B.5.1 Case Study 1 Competence Development with the ProfilPASS

Two examples of ProfilPASS work with different target groups have been selected. Alongside these criteria, the evaluation was above all crucial in that as a rule it primarily made it possible for users to put things into words.

Target group: 50 Plus

Rackow Schule GmbH, Hamburg, is a training provider that has been working in commercial training and CET for over 100 years and has many sites in northern Germany. Various target groups obtain qualifications at the Rackow Schule and are prepared for the mainstream labour market, especially

- People with a migration background
- Job-seekers
- Young people and
- Older people aged 50 and over

A particular learning environment is the Open Office which facilitates individual modular learning in the commercial sector for participants who are looking for work. The training is provided as a mixture of media-aided learning units and classroom teaching. Learning guidance supports the definition of learning requirements and an individual training plan based on the participants' established strengths and goals.

As an establishment with a resource-oriented approach, the Rackow Schule is a ProfilPASS dialogue centre and uses the ProfilPASS etc. as part of a series of measures to integrate the long-term unemployed between the ages of 50 and 57. The goal is integration into the mainstream labour market or encouragement to take up self-employment. These are mainly people who, after several failures, see no more opportunities for themselves in the labour market and, indeed, often have no opportunities in their original occupation. For this reason, an important task is the development of new ideas for the world of work. Describing their dream job causes people to reflect on their own lives and work to date, and factors that they have forgotten or overlooked may come to light in their own history.

"After one hundred unsuccessful applications, there is little point in sending another hundred applications with an amended CV. The question should be: what benefits can I offer an employer in a different field? The ProfilPASS changes the focus onto new vocational positions," says the project leader in answer to the question of the concrete benefits of working with the ProfilPASS.[306] The participants themselves see the main benefit of working with the ProfilPASS as the fact that it highlights many positives and prompts new ideas, it improves motivation and self-confidence so that they now know what they want and have the confidence to implement it.[307] [308]

The evaluation results from 2005[309], appraisals and the interviews described here show that individuals primarily see personal benefit in the use of the ProfilPASS; that at least is their impression shortly after the end of the process. An evaluation of the longer-term effects of recording skills with

306 http://www.erfahrung-ist-zukunft.de/nn_107704/Webs/EiZ/Content/DE/Artikel/Wissenswertes/2 00750522-interview-profilpass.html.

307 http://ondemand-mp3.dradio.de/file/dradio/2007/04/21/dlf_200704211416.mp3.

308 http://www.erfahrung-ist-zukunft.de/Webs/EiZ/Content/DE/Artikel/Praxisbeispiele/20070531-profilpass-interview-mitnmang-teilnehmer.html.

309 DIE/DIPF/IES (2006).

the ProfilPASS is planned. To date, over 10,000 ProfilPASSes are in use nationally.

Target group: Year 9 pupils (age 15–16)

The Bauakademie – Gesellschaft für Forschung, Entwicklung und Bildung mbH, Berlin, is involved in construction and real estate as well as related research and development, innovative services and consultancy and CET and coaching. It too is a ProfilPASS dialogue centre and has been working with the ProfilPASS in various scenarios since as early as 2004. The most recent example is the use of the ProfilPASS for young people in three 9th year classes in a Berlin comprehensive. The preparation for its use was intensive, the framework, scope and time allocated were clarified and the agreement of the headmaster, the teachers and the parents was obtained. The ProfilPASS for young people and its aims were explained to the young people in a lesson at school. In addition to pedagogical elements, a podcast developed and produced by the provider was used. The young people then had to consider whether they were prepared to look into themselves and invest the necessary time both in the group and at home. Since people cannot be forced to be reflective, the voluntary nature of the ProfilPASS method is a key principle. 30 % of the pupils registered and agreed to work with the Bauakademie. The work with the young people took place in individual interviews at the start and end of the process and in groups approximately every four weeks in between, both on the school premises and outside school hours. All the young people completed the work with the ProfilPASS.

Finally the Bauakademie surveyed the young people on the procedure, guidance and framework and asked them for their opinion of the project. The young people unanimously responded that they very much enjoyed the interviews with the advisers and that they discovered their strengths and are now better able to describe them. For some of them, the process confirmed their choice of occupation, but the majority stated that they still need to think about it. All the young people said they would recommend the ProfilPASS.

The Bauakademie advisers see many benefits in recording young people's skills using the ProfilPASS, especially for the individuals but also for companies and society.[310]

Aspects of personal benefits cited were

- the motivation to reflect on oneself and one's own accomplishments
- a sophisticated and comprehensive picture of one's own strengths
- interaction with other people, especially external third parties, particularly for the young people surveyed, who rarely have the opportunity to talk to anyone with no pre-conceptions of them
- consideration of what you want and need to work on, in a positive, forward-looking sense
- the knowledge that application and effort are rewarded
- increased self-awareness in the sense of "I know more about myself"
- motivation and active approach to the next steps.

The benefits for companies are that

- young people are better prepared when they start their working life
- they aspire to more appropriate training and look for it more selectively and
- costs to companies are reduced slightly as a result
- the company can better identify whether the young person would fit into the company and the occupation
- the young people can better utilise the strengths, of which they have become aware and which prompted them to aspire to this training, in their day-to-day work

310 Verbal qualitative interview with the Bauakademie on 10 July 2007 in Berlin, conducted by the *ies*.

The cited benefit to society is an economic one too. In particular

- the cost to society of supporting the drive for results is reduced and
- substantial savings can be achieved by preventing slippage of measures and training dropouts.

Recording skills with the ProfilPASS mainly relates to points 5.1.b, 5.1.d, 5.1.e, 5.4.a, 5.4.b of the OECD guidelines.

A challenge to the more widespread use of the ProfilPASS is the fact that much significance is still attached to qualifications and third-party assessments and that the many benefits of a system for recording skills that is mainly based on self-assessment are not acknowledged or are not given sufficient consideration.

B.5.2 Case Study 2 "Later Qualification as Process Engineer in the Iron, Steel and Semi-Finished Products Industry" of Stahlwerke Bremen[311]

The "Later Qualification as a Process Engineer" during employment represents a particular qualification concept for employees who are not formally qualified, employed as skilled workers at Stahlwerke Bremen[312] and have belatedly been able to obtain qualification by vocational examination as "Process Engineer in the Iron, Steel and Semi-Finished Products Industry". The qualification – arranged by a project core team in the steelworks – takes the competences and experiences of the semi-skilled workers and expands on this through specialised instruction, filling gaps in knowledge and accompanying mentoring. It is geared towards employees who fulfil specialist steelworks tasks without having a relevant professional qualification. For the participants, this qualification creates the opportunity of acquiring via an external examination the specialist worker's qualification for the profession of process engineer in the Iron, Steel and Semi-Finished Products Industry. To date, three sets have been followed through in the Stahlwerke Bremen and a total of some 45 employees have successfully qualified. In the meantime, several of the participants have also successfully completed CET as master tradesman in industry.

The later qualification of Stahlwerke Bremen serves as an example, in this case, of how vocational experience and competences in the work process are further developed and adapted to changing work processes, technological developments and economic requirements. As well as the possibility of formal recognition of the qualification thus acquired in the vocational training system, in this case essential principles for lifelong independent learning are also created.

The qualification at the Stahlwerke Bremen is characterised by

- flexible, modular design of the qualification in relation to the vocational concept;
- high applicability through learning integrated with work and use of the place of work as a place of learning
- the examination orientation and monitoring of the progress of learning which provide traceability in the qualification pathways.

Therefore, this later qualification corresponds to the standards of vocational later qualification developed in the context of the pilot project series "Later Qualification During Employment of Young Adults" of the Federal Institute for Vocational Eduation and Training[313].

311 The case study described here essentially bears upon the project documentation (see Institut für berufliche Bildung, Arbeitsmarkt- und Sozialpolitik GmbH (INBAS – Institute for Vocational Education, Employment Market and Social Policy) and Stahlwerke Bremen GmbH) (Ed.) (2006): (2006): Angelernt? Beruf gelernt! Mit Fachkräften erfolgreich in die Zukunft. Ein abschlussbezogenes Nachqualifizierungsprojekt der Stahlwerke Bremen GmbH. Teilvorhaben Wissenschaftliche Begleitung des Netzwerks Qualifizierungswege für An- und Ungelernte, Offenbach.

312 The Stahlwerke Bremen belong to ArcelorMittal group.

313 http://www.berufsabschluss.de/projekte/bibb_modellversuche/index.html

For the participants, the qualification concept contains a comprehensive and demanding programme. They remain assigned to their working area and their original shift. This is interrupted for a total of six block phases of theoretical instruction of three weeks each and by practice in other areas of work. At the start of training, a training offsetting plan is compiled for each participant using the framework timetable in which the individual stages of their training deployments are held.

In the six block instruction phases, as well as the vocational subject contents, basic technical knowledge and general knowledge are also provided. In addition, there are special courses in the area of production engineering, such as operation of the tap hole machines on the blast furnaces, for example. At the start of qualification, the emphasis is on tying in knowledge from school, to reactivate it and close gaps in knowledge."

In addition, the participants can visit so-called continua, an opportunity for re-preparing and preparing the contents of learning and as supporting instruction for any gaps. This provision may, depending on the case and decision of the project core team, be voluntary or even compulsory. According to individual requirements and particularly in preparation for examinations, such continua are also arranged privately among the participants as joint and complementary learning.

Furthermore, the participants obtain two training contracts, partly also as group work, for the phases between the instruction blocks. This approach is to bridge the gap between theory and practice, and equally promote self-directed and adult learning. A further adult-compatible element, which should overcome the old pupil behaviour and the individual responsibility of adults, consists of the participants being obliged, at least twice a month, to hold a meeting on their own initiative regarding the progress of the qualification with their training coordinator. Thus, any current problems, or problems that may arise, can be recognised in time and necessary steps can be taken immediately in the pathways. The learning tests have the same function, according to the relevant qualification sections.

The following quotation from a project manager provides an insight into a typical learning course:

> "In the first two instruction blocks, we essentially refresh knowledge learned at school,reactivate learning capacities, and also refresh basic vocational knowledge, team development and other such things. That is already quite difficult for them *(the participants, author's note).* Extensive arithmetical exercises are performed, up to solving equations with two unknowns. There is then a break in expectations, 'So, now the specialist training has started, it is now about pure facts which I already know and of which I have no idea.' And then they first appreciate how much deeper in every respect are the requirements on mastering these specialist tasks, and then it is really difficult. And then they have to do the first practical experiences and exercises, to return to learning, to associate with the solution of very challenging, very work-intensive tasks. That is a stressful learning process."

The qualification route during employment serves the interests of both the company and also the employees together, as participants in the qualification. The following objectives are to be reached:

From the point of view of the company, there are the following effects on personnel policy:

- Employees of the production plant should, with a view to more clearly raised requirements, due to modernised systems technology on the one hand and due to the increased requirements on product quality and productivity on the other, be more sustainably qualified at a higher level;
- The core competences of employees of the production plant are more strongly developed in the areas of teamworking and joint process supervision in cooperation with the maintenance workforce;
- Employees in the production plant are made capable of extensively independent adaptation to technological innovations, changing logistical requirements and constantly increasing requirements on quality assurance in the sense of lifelong learning;

- Employees of the production plant better enabled to take on new tasks at the steelworks after shorter familiarisation periods, which is associated with a marked increase in flexibility of deployment;
- Creation of professional protection in the sense of social security for the group of employees mentioned.

On the part of the project core team (leaders, supervisors) central are

- Securing employment opportunities for colleagues without a formal examination by raising the vocational qualification
- Personnel bonds and prospective personnel retention
- Making possible a well-grounded professionalism for participants by deepening their specialist knowledge and retention of specialist worker skills
- A requirement for individual professionalism, to formulate learning processes more efficiently and more appropriately to target groups, and to allow linking of work and learning to an entire process,
- To give suitable encouragement to lifelong learning by guidance towards independent investigation of work-related questions from their own everyday practice and learning and auxiliary resources required for problem-solving.
- Incorporation of quality assurance and team capability, deepening cooperation and teamwork

From the point of view of qualification participants, successful participation in the qualification enables

- adoption of a well-based specialist worker role and extension of the spectrum of activity to date
- an appreciation of the value of the activity, in particular the traditionally less-appreciated production activities compared with maintenance activities
- the opportunity of vocational promotion and, as appropriate, grouping into a higher pay bracket
- a further qualification, e.g. to master tradesman in industry
- greater job security
- deepening their professional knowledge

In summary, here were shown the benefits from the perspective of various organisations or hierarchical levels of a company that within the framework of its network activity has also the requirement to provide encouragement in the area of personnel development and employee qualification for other companies.

With its later qualification as a process engineer, the training department of Stahlwerke Bremen provides the supraregional network "Qualification Pathways for Unskilled and Semi-Skilled Workers", with an example of good practice.[314] This network guides and supports companies, training providers, employment agencies and local authority establishments at a regional level in the implementation of tested qualification concepts for unskilled and semi-skilled workers. The network is therefore like a project of the Zentralstelle für die Weiterbildung im Handwerk and the German Central Association of Skilled Trades, in which, among other things, building blocks for the preparation of the external examination have been developed, promoted by the Federal Ministry of Education and Research in the context of the programme "Promoting Competences – Vocational Qualification for Target Groups with Particular Promotional Requirements" (BQF).

Of the OECD guidelines, for later qualification, in particular points 5.1.a, 5.1.b, 5.1.c, 5.1.f, 5.2.a, 5.2.b, 5.3.a, and 5.4.b are relevant.

314 Bildungswerk der Hessischen Wirtschaft e.V., bfz Bildungsforschung gGmbH and INBAS GmbH.

Table 24: Participants' Opinions of the Benefits of CVET

	2003
Benefits[316]	
Can do work better than before	76
Improved career opportunities	60
Helps handle everyday life better	41
Better knowledge of interconnections in the company	37
Get to know colleagues in the enterprise better	36
Promoted	15
Moved to a higher pay grade	14
Would have lost job otherwise	13
Got new job	9
None of the above/no answer	9
Overall opinion: Significant change	
Yes	61
No	38
No answer	2

Source: BMBF (Hrsg.) (2006b), p. 364

B.5.3 Case Study 3 Benefits of Non-Formal Learning

Assessments of the benefits of CET in Germany are generally based on information from surveys of participants. For example, the Reporting System on Continuing Education has conducted surveys on the subjective benefits of CVET for some years now.[315] The survey is split into "harder" indicators such as salary, promotion, getting and keeping the job and "softer" indicators such as improved employment satisfaction, help in everyday life and improved opportunities in the labour market. The questions are geared to the working population and relate to the benefits of vocational education and training.[316]

The table shows that the participants tend to use "softer" factors to describe the benefits of CVET than "harder" ones. The overall opinion shows that CET resulted in a significant change in work situation for nearly two thirds of respondents.

Young people aged 19–24 and people without a vocational qualification have a particularly positive opinion of the benefits of CVET and it is they who tend to experience the greatest change. The same applies to participants from SMEs; participation in CVET tends to entail change for them more than for employees in large companies.

The 2002 representative survey of the costs and benefits of CVET found a close correlation between the objectives associated with the CET and the actual benefits.[317]

315 See on this and for the following BLK (Hrsg.) (2006b), p. 363 et seq.

316 Multiple selections possible.

317 See Beicht, Ursula; Krekel, Elisabeth; Walden, Günther (2004): Berufliche Weiterbildung – welchen Nutzen haben die Teilnehmer? In: BWP (5), p. 5–9.

The Association of German Chambers of Industry and Commerce (DIHK) conducted a survey among people who had completed CET leading to a certificate on the benefit of their participation. It shows that the "harder" indicators figure more prominently with a qualification.

Table 25: Motives and Benefits of CET Leading to a Certificate

	Motive for participation (in %)	Benefit of participation (in %)
Promotion	71	70
Improved financial terms	51	66
Greater job security	44	44
Better able to handle vocational tasks	34	28

Multiple selections possible
Source: Deutscher Industrie- und Handelskammertag (DIHK) (Hrsg.) (2004): Karriere mit Lehre. Fünfte Erfolgsbefragung zu IHK Weiterbildungsprüfungen 1997–2002, Bonn, Berlin after Käpplinger, Bernd (2007), p. 68 et seq

A written survey of participants in CET at the Public Employment Service in 2001 used the integration rates to substantiate the different significance of certificates. State qualifications have a very high level of acceptance (integration rate 67 %) but certificates from other awarding agencies also lead to a higher integration rate (50 %), whilst a lack of any certificate substantially reduces the integration rate (35 %).[318]

Käppliger observes that the value of certificates should not be underestimated. Possession of a certificate seems to have a positive impact on the labour market whilst a lack of qualifications leads to social exclusion since qualifications are a minimum requirement for access to the labour market. Furthermore, he states that there is reason to believe that participants consider the opportunity to obtain a certificate as a quality criterion when evaluating courses, even if they do not use the qualification.[319]

Using the OECD Guidelines, the benefit of non-formal learning can be characterised by the following points: 5.1.a, 5.1.d, 5.1.e, 5.1.f, 5.2.c, 5.2.d, 5.3.b, 5.3.c, 5.4.c.

There are many barriers to participation in CET. The most common reasons cited are statements such as "CET is hard work." (71 %), "I have plenty of opportunities in my career even without CET." (38 %), "There are too few CET opportunities near me." (36 %). However, cost (34 %) and time (30 %) are major reasons for non-participation.[320]

318 Schuldt, K.; Troost, A. (2004): Förderung der beruflichen Weiterbildung. Quo vadis? Progress-Institut für Wirtschafsförderung, Bremen, Teltow after Käpplinger, Bernd (2007), p. 70.

319 See Käpplinger, Bernd (2007): Abschlüsse und Zertifikate in der Weiterbildung, Bielefeld, p. 68–74.

320 See BMBF (Hrsg.): (2006b), p. 261 et seq.

B.6 Component 6: Conclusions

As shown in part A, Germany has a series of recognition procedures in which work experience is the condition for admission to an examination and which aim to improve transfer opportunities in the education system, to increase educational levels and to break down social selectivity. The scope of these procedures has to date been relatively limited and they have been almost exclusively related to the area of the informal acquisition of vocational competences. Informal learning in contexts other than vocational is generally disregarded in these procedures. In this respect, if existing potential is to be utilised, the existing approaches must be made transparent, further developed and opened up to learning outcomes from non-vocational contexts or those dissociated from the area of learning. Further development of the recognition of non-formal and informal learning is a particular challenge since mature institutional foundations for credit and certification procedures are only just evolving; however, if an innovative harmonised system of recognition is to be developed, the many players and responsible institutions must reconcile their interests and processes.

In principle, the recognition of skills, knowledge and abilities acquired outside formal routes is becoming increasingly significant. The qualification of the working population and the motivation to undertake lifelong learning – as everywhere in the OECD member states – are regarded as critical resources for social and economic development. As part of the Lisbon objectives of the European Council, non-formal and informal learning were integrated systematically into the innovative education policy approaches. The growing significance of the issue in Germany is manifested in various federal programmes and initiatives.[321]

321 These include "Lifelong Learning", "Learning regions – promotion of networks", "School – Business – Working life", "Perspectives 50plus", "Strategy paper on lifelong learning" and the "Vocational education and training" and "Continuing education and training" innovation groups initiated by the BMBF.

B.6.1 Incorporation of recognition into national objectives

The recognition of competences not acquired via formal routes can make a significant contribution to a number of key (education) policy goals. First are the integration of low-skilled workers into working life, increasing the number of students and reducing dropout rates in all educational pathways in general, vocational and higher education, the promotion of occupational and geographical mobility and increasing participation in continuing education and training.

Owing to the complex structures in education with the different responsibilities and funding paths, the implementation of lifelong learning in Germany requires a common strategy that can link many approaches and create the broadest possible consensus among the players involved. Germany must find its own path since the recognition of non-formal and informal learning is determined by the national education system and the corresponding vocational qualification structures. International solutions and successful practical examples can therefore only be implemented in a modified form.[322]

A common strategy for lifelong learning in Germany was agreed by the Federal Government and the Länder in 2004 in the Bund-Länder Commission for Educational Planning and Research Promotion. This specifically highlights informal learning and emphasises the growing relevance of documentation and recognition for competences acquired in this way.[323]

Commissioned by the Federal Ministry of Education and Research, in 2004 the Expert Commission on "Financing Lifelong Learning" came up with recommendations to promote and finance lifelong

322 See Schneeberger, Arthur; Petanovitsch, Alexander (2005): Anerkennung non-formalen und informellen Lernens in Aus- und Weiterbildung und im Hinblick auf die Hochschulzulassung. Analyse europäischer Ansätze zur Anrechnung und deren Relevanz für Österreich. Ibw-Forschungsbericht No. 129 publ. by the Institut für Bildungsforschung der Wirtschaft, Wien.

323 See BLK (2004). For the many pilot projects by the Federal Government and the Länder, see ibid, Appendix 5 and section A2.

learning in Germany covering, among other things, broad measures to stimulate greater participation in lifelong learning, their contribution to promoting a new culture of learning and advising on the reorganisation of legislative responsibilities.[324]

In addition to national programmes, the European Communities has developed the Lisbon Programme, passed in 2005 and which contains measures for growth and employment. The central milestones in this include facilitating occupational and geographical mobility and opening up employment opportunities arising from a pan-European labour market.[325]

One concrete measure to improve the conditions for CET and hence lifelong learning is savings in continuing education and training, for which reports on its significance, to analyse possible models and develop a concrete plan were prepared in 2007. Here too the focus is on maintaining and increasing individual employability.[326]The Continuing Education and Training Innovation Group set up by the Federal Government in 2006 is charged with developing recommendations for a strategy for the design of lifelong learning. The four key topics are being prepared and tackled in four working groups. One working group is focusing on the link between formal and informal learning, advising on the challenges and solutions for the recognition of learning outcomes. The problems are

- the creation of a framework for the recognition of informal learning, given the distinctive vocational education and training system
- the recognition of work-related skills acquired outside working life, for example in voluntary work and
- improved transfer opportunities within and integration of the educational sectors.

B.6.2 Strategies and challenges

Due to the complexity of the education system, there are a whole host of major challenges on the road to widespread recognition of skills acquired via different routes, which can only be touched on here:

- Society has hitherto had no concept of the significance of informal learning to the growth in competences, and that applies both to the majority of individuals and to companies. Social consensus on the value of this learning is required for widespread recognition to become a reality and hence the culture of recognition needs to change at all levels.
- Nationwide provision of qualified consultancy is required to provide information on, and to assess appropriate methods and procedures for, recognition of work experience and competences acquired in other ways.
- For the issues of informal learning and the recognition of learning outcomes to become widespread, local information and discussions are required to build up a regional dialogue. Vocational training committees, chambers and dialogue partners in the regions must be utilised.
- Fundamental to further discussions and decisions should be the ongoing documentation of data (participant numbers, outcomes and gains for the participants) on the recognition and credit procedures in a reporting system.
- The existing procedures and approaches for recognising learning outcomes achieved via different routes currently have only limited scope,

---

324 Expertenkommission Finanzierung Lebenslangen Lernens (2004) Finanzierung Lebenslangen Lernens – der Weg in die Zukunft. Schlussbericht, Bielefeld.

325 Commission of the European Communities (2005): Communication from the Commission to the Council and the European Parliament Common Actions for Growth and Employment: The Community Lisbon Programme, Brussels, 20.7.2005, COM(2005) 330 final.

326 Bundesministerium für Bildung und Forschung (BMBF) (2007d): Wachstumspotential der Weiterbildung nutzen. Eckpunktepapier zur Einführung des Weiterbildungssparens, Bonn/Berlin; Rürup, Bert; Kohlmeier, Anabell (2007): Wirtschaftliche und sozialpolitische Bedeutung des Weiterbildungssparens, Bonn, Berlin sowie Dohmen, Dieter; Hesselle, Vera de; Himpele, Klemens (2007): Analyse möglicher Modelle und Entwicklung eines konkreten Konzepts zu Bildungssparens, Bonn, Berlin.

and not solely because of their low degree of familiarity and prevalence, take to an extent little account of one another. For this reason also the existing approaches and procedures must be further developed and integrated.

- Employer's references and the education system exist in parallel in Germany and have no legal relationship with one another. A major condition for the further development of the procedures and their validity is to clarify the requirements for providing a legal basis to experiential learning. This could be made transparent with a legal opinion.

- The question of how to measure skills in a sophisticated way and on a large scale is still unresolved. The existing procedures are too laborious for use on a large-scale. However, concentrating exclusively on subject-specific knowledge that can simply be looked up would not be compatible with the concerns associated with the recognition of informal learning.

- The many stakeholders involved in the vocational education and training system sometimes take controversial positions which have to be reconciled for a social consensus on the recognition of informal learning.

- The development in Germany of the German qualification framework is being undertaken by the Federal Government and the Länder and is currently under discussion with the other players. The work is presently concentrating on assigning formal qualifications to the levels. Informal learning up to now is disregarded but, in view of the overall aims of the EQF, should be included in a future step.

- The integration of the educational sectors presupposes equivalence of general and vocational education. The skills, knowledge and competences taught must be subject to mutual appreciation. However there are still reservations about transfer opportunities, especially from higher education. A fall in standards, and hence in quality, is feared.

- The training providers in the less clear continuing education and training sector should be enabled to classify knowledge acquired through formal, non-formal and informal learning in a way that makes sense and to tailor the courses they offer and their teaching methods to this. Appropriate teaching methods should be developed to promote the intended informal learning so as to create at the same time a systematic link between different forms of learning.

- There is still little recognition in Germany of the qualifications and competences of people having a migration background meaning that they often cannot find appropriate employment and their potential remains under-utilised as a result. Germany is increasingly becoming accepted as an immigration country, which must be taken into account in discussions about the need for recognition of non-formal and informal learning.

- Public administration could take the lead by introducing procedures that take account of informal learning and making known its experiences.

The various initiatives and programmes, both nationally and locally, are fuelling the debate on informal learning, appreciation of such learning and recognition, but, as the list shows, there are still many challenges before widespread recognition can become a reality in Germany.

B.6.3 Important issues that have not yet been mentioned

The complexity of the issues, combined with the circumstances in Germany such as the tradition of formalised training routes and the diversity of responsibility for the various areas of education, require a fundamental reconciliation of the various players in respect of the value of informal learning and its recognition. The further development of the procedures, their integration and further implementation should be tailored to the circumstances of the education and employment system, to utilise them and at the same time contribute to their further development.

B.6.4 How widespread are strategies for Lifelong Learning after the years of compulsory education

There is no information on how widespread is the strategy for lifelong learning. However, for individuals, the extent can be measured through the participation in continuing education and training and involvement in informal learning that is covered in representative surveys. According to the CET reporting system, in 2003 nationally 41 % of the population aged 19–64 attended a CET course and hence took part in non-formal learning.[327] 35 % of respondents undertook self-study outside working hours. In the same period, participation in informal acquisition of vocational knowledge was 61 % of the working population.

Insofar as data exists on the individual recognition procedures in the education and employment system, prevalence varies from procedure to procedure, but overall they are, comparatively, not very widespread (see section A.1).

B.6.5 Conditions for realising an Open Learning Society

The recognition of competences acquired via non-formal and informal routes aims to break down social selectivity in access to education. The key issues are to enable low-skilled workers to participate in employment by securing their employability and to give more people access to higher education. The appreciation of experiential learning at work and at home by giving credit for learning outcomes and facilitated admission to examinations and advanced educational pathways increases motivation to learn and hence contributes to greater participation in education. A series of social and individual conditions must be met to realise the vision of an Open Learning Society:

- A social foundation for experiential learning
- A legal foundation for experiential learning
- Further development of existing recognition procedures and development of new ones with facilitated admissions
- A system of documentation, recording and recognition with different, intermeshing procedures
- Transparency of documentation, recording and recognition procedures in conjunction with
- A culture of trust in respect of self-evaluation procedures
- A willingness and ability to reflect and perform self-evaluation
- A willingness and ability to learn

The essential basis for the further definition of the recognition of informal and non-formal learning in Germany will be pilot projects which are trialled in practice (see section A.2), a well-founded and meaningful database on the uptake and effects of the existing and pilot procedures and the judicial discussion and legal evaluation of the expansion of formal recognition at regulatory level.

327 Also on this and for the following BMBF (2006b), p 190 et seq. The participation in non-formal and informal learning surveyed as part of the Lifelong Learning ad hoc module in the micro-census which is often used in international comparisons is significantly below the results of the reporting system for technical survey reasons. See BMBF (2006b).

Summary

> The cohesion and social development of our society, our prosperity and the competitiveness of our industry depend more and more on the importance which is attached to education. Education is the decisive factor, not only for the future of our country, but also for the opportunities of each and every person.

Coalition agreement of 11 November 2005

Taking the view of the OECD that learning outside formal education systems is generally little emphasised, rarely understood and even more rarely adequately appreciated, this country background report, as a part of the OECD action "Recognition of non-formal and informal Learning", is connected with the objective of creating more transparency with respect to methods and systems for the recognition of non-formal and informal learning in Germany and its effects. It is the OECD's intention to make a comparative analysis of the state of recognition, to identify special circumstances and transferable examples and to gain information for further developments, taking account of the framework in the respective countries. The purpose for Germany is to attain a systematic overview of the different alternatives for recognition and of the status, extent and benefit of the procedure itself. It is also intended to exchange experience with other countries.

The guiding principles of the OECD oriented components of contextual factors and framework are briefly addressed below and the procedures are then summarised. The outlook focuses on the results and advises on fields of action.

Contextual factors and framework

Demographic change and the shifting qualification requirements of a knowledge-based society present serious challenges for Germany in the 21st century. Due to the shrinking and ageing population and the falling number of people entering professional life, the work necessary to sustain society will be distributed between fewer and older people in the coming years. Life-long learning and the adaptation of learned skills, knowledge and capabilities to the constantly changing requirements of working life will become a substantial prerequisite to the retention and extension of employability and therefore an important principle for this.

Beyond this, it is possible that an upcoming and rapid specialist skills requirement in the technology-oriented and knowledge-intensive industrial and service sectors will also become relevant to the economy and to society. It is uncertain whether the current approval and assessment procedures can ensure that sufficient highly-qualified people will emerge from the German education system. The departure of academics and specialists abroad is an additional difficulty for the economy.

In view of this initial situation and against the background of other contextual factors, it seems most appropriate to exploit all available potential: people willing to study, migrants living in Germany, specialists willing to immigrate from abroad, women, the low-skilled, those having low academic achievement and the older generations.

The current debate on the recognition of non-formal and informal learning in Germany can be traced back to the educational policy drives of the European Union, which address the developments from practical education in the course of reform concepts for national (professional) education systems. At national level, these are represented in the "Strategic Paper for Life-long Learning in the Federal Republic of Germany" of the Federal/State Commission. The significance given to this topic in Germany is reflected in different federal policy programmes and initiatives, in scientific studies and the convocation of expert panels. However, it can be determined at the current time that a legal basis for the formal recognition of informally gained competence has not yet been created. Apart from traditionally established structures in the education system, which are being developed in the direction of the formal recognition of informal learning, diverse concepts below the level of administrative policies can be found.

The debate on the design of the German qualification framework (DQR) has accelerated since submission of the draft of the European Qualification Framework (EQF) developed by the EU Commission as a result of the Lisbon process. The aims of improved transparency of educational path-

ways, simplified access to the tertiary sector and more equal opportunities and transfer opportunities between the educational systems and levels are moving closer to the centre of education-policy initiatives. The EQF as a driving force for more transparency has thus led to additional efforts being made towards greater visualisation of non-formal and informal learning and increased debate on the crediting of vocational qualifications and work experience towards post-secondary educational pathways.

Participating in this field are the different education, social and economic policy-making bodies, representing different interests in their respective functions and which are involved in a process of open debate regarding the recognition of informal learning (see Section B.4).

Objectives of recognition

Some of the procedures existing in Germany relating to recognition accompanying entitlement in the education system have their roots in the 1960s. At the time, there were two goals: On one hand, it was important to overcome the marked social selectivity of the education system and increase educational opportunities for all, and on the other to increase employment, and hence strengthen the economy, by easing access restrictions to higher education to attain a higher level of qualification for employees. These arguments – improvement in equal opportunities by breaking down social selectivity in access to education and utilisation of existing potential to strengthen the economy – are still significant reasons for the concept of Lifelong Learning even today.

The present debate is also geared firstly to experiential learning, learning "in passing" when meeting day-to-day challenges at work and at home, which is a major area of skills growth, secondly to skills in the sense of competence, and thirdly to the outcomes of learning processes. However, the role assigned to the individual has changed. Whilst in the past the responsibility of the state was stressed, today the emphasis is on joint efforts and hence also the individual's responsibility to maintain his/her active participation in society and employability, and hence continuing education and training.

The main reasons for the development of procedures and models for recognition are the increase in levels of education and the rise of participation in education to retain and extend employability. As formulated in the coalition agreement, education and learning are crucial responses to modern challenges such as demographic change, migration, globalisation and technological progress. The existing barriers between educational sectors must be broken down and transfer opportunities in the education system increased. The intention is to make qualifications the start of a learning career, not the end of it and to accelerate study periods by tying into what has already been learned. By identifying and recognising learning outcomes, it is expected that it will be possible to utilise previously neglected potential, increase occupational mobility and hence reduce individual wrong decisions and stagnation. The identification and recognition of leaning performance are important prerequisites for an increase in the level of education in Germany, with effects on the participation of the low-skilled in the labour market, integration in jobs, the education of people with a migratory background and the number of students. The Country Background Report Germany shows that there are many procedures of varying scope in Germany, but that only very limited progress has been made on achieving education policy objectives.

This report makes a distinction between procedures that are governed at regulatory level and accompanied by entitlement to access education in the education system as well as the employment system, between concepts, the theoretical and practical steps essentially intended to prepare for the establishment of a culture of recognition in Germany, and procedures that are effective in the employment system and internally in companies.

Recognition procedures in the education and employment systems

The procedures associated with formal recognition focus on different target groups, predominantly on people who have undertaken vocational education and training and have work experience, and are characterised by different approaches. Whilst retraining and the second educational pathway such as organised CET with teaching and

certification are assigned to non-formal learning, in some Länder experiential learning in working life constitutes a pre-requisite for admission to an external students' examination and the third educational pathway. Since the procedures are subject to different responsibilities and statutory regulations, a distinction is made in the description between procedures in the CVET system and those in the higher education system.

The currently available and little differentiated data on procedures connected with formal recognition indicate a comparatively low proliferation. For example, in 2005 just over 7 % of candidates for examinations in the various training sectors (excluding crafts) were external, the vast majority of whom had many years of relevant work experience. As regards admission to higher education for individuals with vocational qualifications via the third educational pathway, on average less than 1 % of all students enter higher education via this route. The proportion of lateral entrants (47 %) to IT continuing education to become IT specialists in 2006, however, is substantially higher than the previous examples, but the total number is so low that a comparison of proportions is not very meaningful.

Steps and programmes to prepare for recognition

Besides procedures aimed at formal recognition and those that are appreciated in the labour market, concepts and programmes exist in Germany to promote lifelong learning. Four steps are described as examples: the "Learning Culture for Skill Development" programme, the "ProfilPASS" system for ascertaining and reviewing skills acquired in different ways, the DFG priority programme "Skills models for recording individual learning outcomes and for reviewing educational processes" and the "ANKOM – Credit of vocational skills towards higher education study programmes" initiative. These steps, with their theoretical foundation and simultaneous practical approach, are preparing the ground for a changed learning and recognition culture. They are providing essential preliminary work with the long-term aim of achieving recognition of competences acquired by non-formal and informal routes.

Recognition procedures in the employment system

Beyond this, effective concepts exist in the employment system in which informally gained competence is taken into account. On one hand, this concerns collective agreement regulations and, on the other, procedures in companies which have effects in appointments and in particular internal staff appraisals, such as references, personnel discussions and assessment procedures.

Outlook

The German country study indicates the opportunities that lie in the recognition of competences gained in non-formal and informal ways and makes it clear that there is not *one* system of recognition in Germany, but a wide spectrum of different procedures and concepts. This is a series of co-existing procedures, unconnected with one another, which are subject to different legal regulations and responsibilities.

The existing concepts and procedures prove that the recognition of competences gained in non-formal and informal ways can, on the whole, be of great benefit for individuals, companies and society in a range of fields of activity. This becomes apparent in issues such as the integration of poorly-qualified people, the extension of horizontal mobility in the labour market and the increase in numbers of students. However, it simultaneously becomes clear that potential in Germany is far from being fully exploited. Most of the existing procedures and concepts still have inferior significance in practice. To achieve a wider scope and optimised application it is necessary in many cases to (further) develop, pilot and proliferate real-world solutions. Above all, lacking is a clear policy decision from the responsible bodies in politics, education and business to exploit the potential of non-formal and informal learning as effectively as possible in Germany. Specifically, the following fields of action are indicated by the study:

Research into the procedures showed that even people with no vocational education and training are working in apprenticeship trades, as established by the Federal Employment Agency, but that

their opportunities to access educational pathways for low-skilled workers are actually very limited. Current procedures target transfer opportunities between educational sectors and usually require experience in working life. Only the qualification modules in vocational preparation for underprivileged adolescents target entry to the education system. However, to simplify opportunities for unskilled and semi-skilled adults to enter a profession, *low-threshold access* should be created in which vocational and also non-vocational experiential learning is recognised, possibly through use of *step-at-a-time modules.*

Informal learning outside the vocational context is not usually taken into account in Germany. However, to recognise competence gained in voluntary work or other sectors of social and private life, and to put this to purposeful use, *the learning performance and specific activities should be the focus of attention in the further development of procedures.*

The focal points of the sometimes heated debate on modularisation in Germany are the quality of vocational education and training and the vocational concept. With increasing modularisation and the recognition of skills, knowledge and abilities acquired in different ways, management and labour in particular feel these two cornerstones are being questioned. There are fears of additional work and costs, a devaluation of examinations and competition with in-company procedures. However, management and labour are positive about the expected motivation of learners and the avoidance of redundancies through repeated teaching of the same material.

Equivalence of general and vocational education is an essential pre-requisite for integration of the educational sectors. This requires a mutual appreciation of forms and methods of learning and of the outcomes of these learning processes, the skills, knowledge and abilities. However there are still reservations about transfer opportunities by universities. They fear a lack of aptitude for higher educational studies and a fall in standards, and hence in quality overall.

The existing regulations on intake to higher education without general school certificates, which vary from state to state, are applied relatively rarely and do not contribute to substantially raising the number of potential students. For this, *as* planned in the national qualification initiative, *higher education must be opened up for qualified workers.* This is confirmed by experience gained in states where vocational qualifications and, exceptionally, non-vocational activities such as *family work* is credited. To create wider acceptance, the states and higher education institutes should also agree on *uniform, transparent regulations.*

In view of the demand anticipated in Germany for specialists in individual sectors, it is intended to treat German and foreign job applicants equally in the future and to abolish the prioritisation of engineers. Highly qualified people should be offered better conditions and prospects in Germany. However, to make appropriate use of the potential of *people with a migratory background* living in Germany now and in the future, to give them at least an opportunity of adequate work and to support their integration, efforts already begin to *recognise vocational (partial) qualifications* should be intensified and access to work and education opened up by *recognition of vocational and non-vocational experiential learning.*

Due to the distinctive education system which is closely integrated with the employment system and envisages progressive continuing vocational education and training, and due to the associated recognition procedures and different responsibilities, which are also caused by the federal structure, most procedures exist in parallel with one another and there has been a lack of integration and correlation of the procedures to date. A *final legal assessment* is advisable to achieve this and clarify the general conditions for a correlated system of recognition. This is a substantial prerequisite to the further development of the procedures, their implementation and validity. The issue of how references, as a valid instrument in the employment system, can be integrated with the education system should be included in the examination. This would complete a substantial step towards recognition of competences gained informally on the job.

The lacking integration of the concepts and procedures also leads to a greater opacity, particularly for individuals. Qualified *local consultancy* is

required to not only identify competence gained in different ways, but also to advise on procedures for recognition of these competences, their assessment and the systematic preparation for these procedures.

The development of the national qualification framework in Germany is mainly being undertaken by the Federal Government and Länder, and supported by responsible bodies such as the central organisations of German business and the trade unions. At present, the work is concentrating on the allocation of formal qualifications to the levels and informal learning has so far been neglected. However, if the *potential of informal learning* is to be utilised, it should be included in the DQR.

As a main prerequisite to the creation of comparability and assessment of skills, knowledge and capabilities, it is firstly necessary to *measure* them. The question of how to measure *action competence* in a sophisticated way and on a large scale is still unresolved. The existing procedures are too laborious for use on a large-scale. However, concentrating exclusively on subject-specific knowledge that can simply be looked up would not be compatible with the concerns associated with the recognition of informal learning.

Informal learning is not an alternative to further education usually organised in courses, but is supplementary. However, as an important learning activity, it should be acknowledged and promoted as such. The *providers* in the less clear further education sector should be in a position to classify skills, knowledge and capabilities gained by formal, non-formal and informal learning and to adjust their curricula to the tendencies of increasing acknowledgement and recognition of informal learning.

Until now, there has been little accurate information on the *usage and effects* of recognition procedures. To create transparency on their range and significance and make well-founded recommendations for the further definition of recognition, quantitative and qualitative, biographical *empirical investigations* should be performed. Due to the available data, it is not currently possible in Germany to give a certain reply to the question raised by the OECD in the course of these activities, that of who benefits from the individual procedures and who does not. However, it can be seen in all procedures that professional experience is a main prerequisite for the recognition of non-formally and informally gained competence and that there are few ways for unqualified people without professional experience to enter the education and employment system.

With the introduction of the performance scoring system, a basis has been established in higher education institutes for the extended crediting of vocational qualifications and experience to the required educational performance. The changed structure of qualifications at universities and the introduction of the Bachelor, mobility routes were at the same time opened for professionally experienced people. A systematic record of the possible admission and crediting of professional experience in the course of validation and assessment procedures at universities and higher education institutes does not currently exist. In order to estimate and assess the specific concepts for crediting and admission in practice, these should be *systematically recorded and analysed.* There is also no current overview of the *structure, extent and proliferation* of the procedures established on professions not regulated by BBiG and HwO for the further education sector.

Training course certificates and references with descriptions of the assignments and assessments are particularly significant in applications for jobs. Processes below the political level to measure competence, apart from competence gained in formal ways focus particularly on what has been learned non-formally and informally, usually employ evidence to represent the identified competences. Other than the two procedures named above, these are based not on examination results and assessments by other people, but on the self-reflection and self-appraisal of the individual. Due to the comparatively low value in the market, this procedure is not regarded as being of great benefit. However, which effects are produced by the strengthening of individuals and which benefits they perceive for themselves are decisive issues for an *effect analysis.*

An well-based concept must be developed for a suitable *documentation system to record non-formal-*

ly and informally gained knowledge and capabilities. Pertinent tools for personnel development, corporate regulations – some in collective agreements, references and evidence of informal learning as well as admission to vocational qualification examinations or higher education courses, are very heterogeneous and difficult to understand without additional information. Better correlation between different concepts, the extension of existing tools and the further development of documentation systems for informal learning to systemise these and create greater transparency would certainly increase the demand of participants in education to have their own professional experience, non-formal further education and informal learning documented and certified.

Despite many concrete procedures and forward-looking steps to recognise non-formal and informal learning in Germany, the Country Background Report shows that more efforts need to be made at many levels to develop a culture of recognition in Germany in order to meet current challenges with a view to the future. Taking account of the experience gained in other countries, Germany must find its own way, which must be implemented in its education system and legal principles and taken on board by all responsible bodies.

Bibliography

Arbeitsgemeinschaft Berufliche Weiterbildungsforschung e.V./Projekt Qualifikations-Entwicklungs-Management (2007): QUEM-Bulletin, 2007, Heft 1, Berlin

arbeitsmarkt50.de: Der demografische Wandel und seine Folgen. Projekt der Volkshochschule und Musikschule Wilhelmshaven gGmbH. http://www.arbeitsmarkt50.de/01demografischerwandel.html (access date: 26.2.07)

Arbeitsstab Forum Bildung in der Geschäftsstelle der Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung (Hrsg.) (2002): Empfehlungen und Einzelergebnisse des Forum Bildung, Bonn

AusbildungPlus: Jahresbericht 2007 – full version http://www.ausbildungplus.de/presse/download/index.html (access date 20.06.07)

Baethge, Martin; Baethge-Kinsky, Volker (1998): Jenseits von Beruf und Beruflichkeit? Neue Fromen von Arbeitsorganisation und Beschäftigung und ihre Bedeutung für eine zentrale Kategorie gesellschaftlicher Integration. In: IAB (Hrsg.): Wandel der Organisationsbedingungen von Arbeit, Nürnberg 1998, S. 461–472

Bahnmüller, Reinhard: Stabilität und Wandel in der Leistungsentlohnung. In: WSI Mitteilungen 7/2001, S. 426–433.

Balschun, Boreslav; Vock, Rainer (2006): Potenziale und Bedarfe zur Nutzung des IT-Weiterbildungssystems. Eine empirische Studie zur Entwicklung des IT-Weiterbildungssystems aus Sicht von Betrieben und IT-Fachkräften. Wissenschaftliche Diskussionspapiere des Bundesinstituts für Berufsbildung. Heft 85. Bonn

Beauftragte der Bundesregierung für Migration, Flüchtlinge und Integration (2005): Integrationspolitik als Gesellschaftspolitik in der Einwanderungsgesellschaft. Memorandum der Beauftragten der Bundesregierung für Migration, Flüchtlinge und Integration, Marieluise Beck, Berlin

Beicht, Ursula (2005): Berufliche Weiterbildung von Frauen und Männern im Ost-West-Vergleich, publ. by the Bundesinstitut für Berufsbildung, Research Special, Heft 10, Bonn

Beicht, Ursula; Krekel, Elisabeth; Walden, Günther (2004): Berufliche Weiterbildung – welchen Nutzen haben die Teilnehmer? In: BWP (5), S. 5–9

Beicht, Ursula; Krekel, Elisabeth; Walden, Günther (2006): Berufliche Weiterbildung – Welche Kosten und welchen Nutzen haben die Teilnehmenden? Bundesinstitut für Berufsbildung, Berichte zur beruflichen Bildung, Heft 274.Berufsbildungsgesetz (BBiG) i.d.F. vom 23. März 2005 (BGBl. I)

Björnavold, Jens (2000): Making learning visible: identification, assessment and recognition of non-formal learning in Europe. Thessaloniki

BLK (2004b): Selbst gesteuertes und kooperatives Lernen in der beruflichen Erstausbildung (SKOLA), Gutachten und Dossiers zum BLK-Programm, Heft 120.

BLK (2004c): Kooperation der Lernorte in der beruflichen Bildung, Abschlussbericht des Programmträgers zum BLK-Programm, Heft 114.

BLK (2004d): Neue Lernkonzepte in der dualen Berufsausbildung, Abschlussbericht des Programmträgers zum BLK-Programm, Heft 113.

BLK (2005a): Bildung für eine nachhaltige Entwicklung (“21”), Abschlussbericht des Programmträgers zum BLK-Programm, Heft 123.

Bonin, H., Schneider, M.; Quinke, H.; Arens, T. (2007): Zukunft von Bildung und Arbeit. Perspektiven von Arbeitskräftebedarf und -angebot bis 2020. In: Institut zur Zukunft der Arbeit: IZA Research Report No. 9, Bonn, S. 179–183.

Bott, Peter (2000): Erste Ergebnisse im Rahmen der repräsentativen Stellenanzeigenanalyse des BiBB. In: Bullinger, Hans-Jörg (Hrsg.): Qualifikationen erkennen – Berufe gestalten, Bielefeld 2000, S. 75–79

Braun, Ludwig Georg (2001) Kompetenz als Schlüsselfaktor. In: GdWZ 12 (5) 197–200

Bretschneider, Markus (2004): Non-formales und informelles Lernen im Spiegel bildungspolitischer Dokumente der Europäischen Union. Bonn at http://www.die-bonn.de/esprid/dokumente/doc-2004/bretschneider04_01.pdf (access date 04.06.2007)

Bundesagentur für Arbeit (2006a): IT-Berufe. Informationen für Arbeitnehmerinnen und Arbeitnehmer. Weiterbildung und Beruf, Ausgabe 2006/2007. Nürnberg

Bundesagentur für Arbeit (Hrsg.) (2006b): Beruf, Bildung, Zukunft. Der 2. Bildungsweg in den einzelnen Bundesländern. Nachholen von Schulabschlüssen und Studieren ohne Abitur. Informationen für Arbeitnehmerinnen und Arbeitnehmer, Ausgabe 2006/2007, Nürnberg

Bundesagentur für Arbeit (Hrsg.) (2006c): Beruf, Bildung, Zukunft. Informationen für Akademiker/innen. Ausgabe 2006/2007. Heft 23, IT-Berufe, Nürnberg.

Bundesagentur für Arbeit (Hrsg.) (2006d): Beruf, Bildung, Zukunft. Informationen für Akademiker/innen. Ausgabe 2006/2007. Heft 26, Naturwissenschaften, Nürnberg

Bundesinstitut für Berufsbildung (BIBB) (2002): Angebote dualer Studiengänge an Fachhochschulen. Abschlussbericht eines Vorhabens. No. 3.0.511. 2002. http://www.bibb.de/dokumente/pdf/Abschlussbericht-duale-Studienga-enge.pdf. Access date 11.04.07

Bundesinstitut für Berufsbildung (BIBB) (Hrsg.) (2005): Mittelfristiges Forschungsprogramm 2005 des BIBB.

Bundesinstitut für Berufsbildung (BIBB) (Hrsg.) (2005): Nutzung von berufsbezogenen (PC- bzw. netzgestützten) Medien im Elektrohandwerk. Ergebnisse einer Befragung von Auszubildenden und ÜBS-Ausbildungspersonal. Published on the Internet: 12.12.2005. http://www.bibb.de/dokumente/pdf/a32org_gesamtauswertungt_fogolin_zinke.pdf (access date: 28.7.07)

Bundesinstitut für Berufsbildung (BIBB) (Hrsg.) (2007): Schaubilder zur Berufsbildung. Strukturen und Entwicklungen, Ausgabe 2007. http://www.bibb.de/dokumente/pdf/a22_ausweitstat_schaubilder_heft-2007.pdf

Bundesinstitut für Berufsbildung (BIBB) (Hrsg.) (2007a): Jährliches Forschungsprogramm 2007. Neue Forschungsprojekte, http://www.bibb.de/dokumente/pdf/a11_jaehrliches-forschungsprogramm_2007.pdf (access date: 26.2.07)

Bundesministerium des Inneren (BMI) (2005a): Politische Ziele. http://www.zuwanderung.de/3_polit-ziele.html (access date: 28.07.07)

Bundesministerium des Inneren (BMI) (Hrsg.) (2005b): Zuwanderungsrecht und Zuwanderungspolitik. Broschüre des Bundesministeriums des Inneren, Berlin

Bundesministerium des Inneren (BMI) (Hrsg.) (2005c): Migrationsbericht des Bundesamtes für Migration und Flüchtlinge im Auftrag der Bundesregierung (Migrationsbericht 2005), Berlin

Bundesministerium des Inneren (BMI) (Hrsg.) (2006): Bericht zur Evaluierung des Gesetzes zur Steuerung und Begrenzung der Zuwanderung und zur Regelung des Aufenthalts und der Integration von Unionsbürgern und Ausländern (Zuwanderungsgesetz), Berlin

Bundesministerium für Arbeit und Soziales (BMAS) (Hrsg.) (2005): Lebenslagen in Deutschland – Der 2. Armuts- und Reichtumsbericht der Bundesregierung, Berlin

Bundesministerium für Arbeit und Soziales (BMAS) (Hrsg.) (2006): Verlängerung der Übergangsregelungen bei der Arbeitnehmerfreizügigkeit bis 2009, Material zur Information. Berlin

Bundesministerium für Bildung und Forschung (BMBF) (2003): Konzeptionelle Grundlagen für einen Nationalen Bildungsbericht– Berufliche Bildung und Weiterbildung/Lebenslanges Lernen. Bildungsreform Band 7

Bundesministerium für Bildung und Forschung (BMBF) (2007c): Entwicklung eines Leistungspunktesystems in der beruflichen Bildung. Ausschreibung für einen Dienstleistungsauftrag. Announcement of 28.3.2007

Bundesministerium für Bildung und Forschung (BMBF) (2007d): Wachstumspotential der Weiterbildung nutzen. Eckpunktepapier zur Einführung des Weiterbildungssparens, Bonn/Berlin

Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2000): Berufsbildungsbericht 2000, Berlin

Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2002): IT-Weiterbildung mit System. Neue Perspektiven für Fachkräfte und Unternehmen. Dokumentation, Bonn

Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2000a): Berufsbildungsbericht, Berlin

Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2004b): Weiterbildungspass mit Zertifizierung informellen Lernens. Machbarkeitsstudie im Rahmen des BLK-Verbundprojektes, Berlin

Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2004b): Grundstruktur des Bildungswesens der Bundesrepublik Deutschland, Bonn, Berlin. www.bmbf.de/pub/bildung_in_deutschland.pdf

Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2005a): Berufsbildungsbericht, Berlin

Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2005b): Die Reform der beruflichen Bildung. Berufsbildungsgesetz 2005. Zusammenstellung der Begründungen zu den Einzelvorschriften des Berufsbildungsgesetzes, Berlin

Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2005c): Richtlinien für die Förderung von Initiativen "Anrechnung beruflicher Kompetenzen auf Hochschulzugänge" of 14 January 2005

Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2005d): Berufliche Qualifizierung Jugendlicher mit besonderem Förderbedarf – Benachteiligtenförderung, Berlin

Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2006a): Berufsbildungsgesetz 2006, Berlin

Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2006b): Berichtssystem Weiterbildung IX. Integrierter Gesamtbericht zur Weiterbildungssituation in Deutschland, Bonn

Bundesministerium für Bildung und Forschung (BMBF) (Hrsg.) (2007b): Bericht zur technologischen Leistungsfähigkeit Deutschlands 2007, Berlin

Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung (BLK) (2001): Lebenslanges Lernen. Programmbeschreibung und Darstellung der Länderprojekte, Heft 132, Materialien zur Bildungsplanung und Forschungsförderung, Bonn

Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung (BLK) (Hrsg.) (2003a): Förderung von Kindern und Jugendlichen mit Migrationshintergrund, Heft 107, Bonn

Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung (BLK) (2003b): Perspektiven für die duale Bildung im tertiären Bereich. Bericht der BLK. Materialien zur Bildungsplanung und Forschungsförderung, Heft 110, Bonn

Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung (2004): Strategie für Lebenslanges Lernen in der Bundesrepublik Deutschland. Materialien zur Bildungsplanung und zur Forschungsförderung. Heft 115, Bonn

Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung (BLK) (2005): Weiterentwicklung dualer Studienangebote im tertiären Bereich. Auftaktveranstaltung zum BLK-Programm am 23./24. Juni 2005 in Fulda, Heft 132, Materialien zur Bildungsplanung und Forschungsförderung, Bonn

Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung (BLK) (2007): Weiterentwicklung dualer Studienangebote im tertiären Bereich. http://www.blk-info.de/index.php?id=217, (access date 23.04.2007)

Charité Universitätsmedizin Berlin, Hoogeschool Zuyd (2006): Bachelor of Nursing für Quereinsteiger. Brochure March 2006, Berlin

Coalition treaty between CDU/CSU and SPD of 11 November 2005

Commission of the European Communities (1995): White paper on education and training. Teaching and Learning. Towards the learning society. Brussels. COM(1995) 590

Commission of the European Communities (2000): Memorandum on Lifelong Learning, SEC(2000) 1832, Brussels

Commission of the European Communities (2001): Making a European Area of Lifelong Learning a Reality. Brussels. COM(2001) 678

Commission of the European Communities (2002): Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions. Commission's Action Plan for Skills and Mobility. Brussels. COM(2002) 72

Commission of the European Communities (2003): Proposal for a Decision of the European Parliament and of the Council on a single framework for the transparency of qualifications and competences (EUROPASS). Brussels. 2003/0307 (COD)

Commission of the European Communities (2004): Common European Principles for Validation of Non-formal and Informal Learning. Final draft proposal of working group "H" (Making learning attractive and strengthening links between education, work and society) of the Objectives process. Brussels

Commission of the European Communities (2005): Proposal for a Recommendation of the European Parliament and of the Council on key competences for lifelong learning. Brussels 10.11.2005. http://ec.europa.eu/education/policies/2010/doc/keyrec_en.pdf. (access date: 28.7.2007)

Däubler, Wolfgang (1999): Arbeitszeit – Freizeit – Lernzeit. In: Dobischat, Rolf u.a. (1999): Beiträge zur Zukunftswerkstatt "Zeitpolitik und Lernchancen", Duisburg, p. 77

Deutscher Bildungsrat (Hrsg.) (1970): Empfehlungen der Bildungskommission. Strukturplan für das Bildungswesen, Stuttgart

Deutscher Bundestag (Hrsg.) (2007): Grundgesetz für die Bundesrepublik Deutschland. Textausgabe – status january 2007, Berlin

Deutscher Gewerkschaftsbund (DGB) (2006): Anforderungen des DGB an einen Nationalen Qualifikationsrahmen (NQR), status december 2006

Deutscher Industrie- und Handelskammertag (DIHK) (Hrsg.) (2004): Karriere mit Lehre. Fünfte Erfolgsbefragung zu IHK Weiterbildungsprüfungen 1997–2002, Bonn, Berlin

Deutsches Institut für Erwachsenenbildung/Deutsches Institut für Internationale Pädagogische Forschung/Institut für Entwicklungsplanung und Strukturforschung (DIE/DIPF/IES) (2006): ProfilPASS. Dokumentation zu Entwicklung, Erprobung und Evaluation, Frankfurt am Main

Dietsche, Barbara (2004a): Annex 1 to the Strategie für Lebenslanges Lernen in der Bundesrepublik Deutschland. Ergebnisse der Umfrage zu Lebenslangem Lernen bei Ländern und Bund. In: BLK (2004), p. 37–73

Dietsche, Barbara (2004b): Annex 2 to the Strategie für Lebenslanges Lernen in der Bundesrepublik Deutschland. Examples of good practice. In: BLK (2004), p. 77–121

Dietsche, Barbara; Meyer, Heinz (2004c): Annex 3 to the Strategie für Lebenslanges Lernen in der Bundesrepublik Deutschland. Literaturauswertung Lebenslanges Lernen. In: BLK (2004), p. 1–100

Dohmen, Dieter; Hesselle, Vera de; Himpele, Klemens (2007): Analyse möglicher Modelle und Entwicklungen eines konkreten Konzepts zum Bildungssparen, Bonn, Berlin

Dohmen, G. (2001). Das informelle Lernen. Die internationale Erschließung einer bisher vernachlässigten Grundform menschlichen Lernens für das lebenslange Lernen aller. Hrsg.: BMBF, Berlin

Dohmen, Günther (2001): Das informelle Lernen. Die internationale Erschließung einer bisher vernachlässigten Grundform menschlichen Lernens für das lebenslange Lernen aller

Dostal, Werner (2003): Bedeutung informell erworbener Kompetenzen in der Arbeitslandschaft – Ergebnisse von IAB-Untersuchungen. In: Straka, Gerald A. (2003): Zertifizierung nonformell und informell erworbener beruflicher Kompetenzen, Münster, p. 103–116

Ehrke, Michael; Müller, Karlheinz (2002): Begründung, Entwicklung und Umsetzung des IT-Weiterbildungssystems. In: BMBF (Hrsg.) (2002): IT-Weiterbildung mit System. Neue Perspektiven für Fachkräfte und Unternehmen. Dokumentation, Bonn

Erpenbeck, John; von Rosenstiel, Lutz (Hrsg.) (2007): Handbuch Kompetenzmessung, in preparation

European Parliament and Council of the European Union (1995): Decision no. 2493/95/EC of the European Parliament and the Council for 23 October 1995 establishing 1996 as the "European year of lifelong learning". Brussels. 95/431/EC

Faulstich, Peter: Ressourcen der allgemeinen Weiterbildung in Deutschland. Hrsg. von der Expertenkommission Finanzierung Lebenslangen Lernens, Bielefeld 2004

Frank, Marco (2006): Praktika statt Ausbildung. In: soli aktuell. Newsletter der DGB-Jugend

Friedrich-Ebert-Stiftung (Hrsg.) (2006): Kompetenzen stärken, Qualifikationen verbessern, Potenziale nutzen. Berufliche Bildung von Jugendlichen und Erwachsenen mit Migrationshintergrund. Proceedings of a conference of the Friedrich-Ebert-Stiftung and the Bundesinstitut für Berufsbildung, Bonn

Füssel, Hans-Peter (2003): Weiterbildungspässe – Überlegungen zu den rechtlichen Rahmenbedingungen einer Einführung. Gutachten im Rahmen einer Machbarkeitsstudie. Anlagenband der Machbarkeitsstudie "Weiterbildungspass mit Zertifizierung informellen Lernens". Bremen

Füssel, Hans-Peter; Moewes, Malte; Ziegele, Frank (2006): Die Studiengänge im Überblick. In: Stifterverband für die Deutsche Wissenschaft: Qualifizierung für Hochschulprofessionen. Neue Studiengänge in Deutschland. Positionen, January 2006, Essen, p. 14–17

GMD-Forschungszentrum Informationstechnik GmbH (2001): Das Mitarbeitergespräch in der GMD, Sankt Augustin

Hadeed, Anwar (2004): Sehr gut ausgebildet und doch arbeitslos. Zur Lage höher qualifizierter Flüchtlinge in Niedersachsen, Oldenburg

Hanf, Georg; Rein, Volker (2007): Nationaler Qualifikationsrahmen – eine Quadratur des Kreises? Herausforderungen und Fragestellungen im Spannungsfeld von Politik, Berufsbildung und Wissenschaft. In: bwp@, Nr. 11, http:www.bwpat.de/ausgabe11/hanf_rein_bwpat11.pdf

Hartmann, Michael (2006): Chancengleichheit trotz Studiengebühren: die USA als Vorbild? In: Aus Politik und Zeitgeschichte (APuZ 48/2006), S. 32–38, siehe auch Pressemitteilung des Deutschen Studentenwerks vom 28.06.2006 (http://idw-online.de/pages/de/news165839)

Hecker (1994): Ein nachgeholter Berufsabschluss lohnt sich allemal – Externenprüfung in der Praxis. In: Berufsbildung in Wissenschaft und Praxis (6) S. 27–33.

Heine, Christoph; Kerst, Christian; Sommer, Dieter (2007): Studienanfänger im Wintersemester 2005/06. Wege zum Studium, Studien- und Hochschulwahl, Situation bei Studienbeginn. In: HIS: Forum Hochschule (1), Hannover

Hell, Benedikt; Boramir,Ilkay; Schaar, Hagen; Schuler, H einz (2006): Interne Personalauswahl und Personalentwicklung in deutschen Unternehmen, Wirtschaftspsychologie (1) 2–22.

Hippach-Schneider, Ute; Krause, Martina; Woll, Christian (2007): Berufsbildung in Deutschland. Kurzbeschreibung, publ. by Bousquet, Sylvie, Cedefop Panorama series 136, Luxemburg

Hochschul-Informations-System (HIS) (2005): Studienabbruchstudie 2005. Die Studienabbrecherquoten in den Fächergruppen und Studienbereichen der Universitäten und Fachhochschulen. Kurzinformation A1/2005, Hannover

Hochschul-Informations-System (HIS) (2006): E-learning an deutschen Fachhochschulen. Fallbeispiele aus der Hochschulpraxis. HIS: Forum Hochschule 5/2006, Hannover

Hochschul-Informations-System (HIS); Deutsches Institut für Erwachsenenbildung (DIE) (2006): International vergleichende Studie zur Teilnahme an Hochschulweiterbildung. Abschlussbericht.

Hradil, Stefan (1990): Epochaler Umbruch oder ganz normaler Wandel? Wie weit reichen die neuen Veränderungen der Sozialstruktur in der Bundesrepublik? In: Bundeszentrale für Politische Bildung, p. 73–99

HRK (2007): Ungewöhnliche Wege zur Promotion? Rahmenbedingungen und Praxis der Promotion von Fachhochschul- und Bachelor-Absolventen. Beiträge zur Hochschulpolitik 3/2007, Bonn

HRK (Hrsg.) (2006): Bologna-Reader. Texte und Hilfestellungen zur Umsetzung der Ziele des Bologna-Prozesses an deutschen Hochschulen, Bonn

Institut der deutschen Wirtschaft Köln (Hrsg.) (2007): iwd, No. 27, Cologne

Institut für berufliche Bildung, Arbeitsmarkt- und Sozialpolitik GmbH (INBAS) und Stahlwerke Bremen GmbH) (Hrsg.) (2006): Angelernt? Beruf gelernt! Mit Fachkräften erfolgreich in die Zukunft. Ein abschlussbezogenes Nachqualifizierungsprojekt der Stahlwerke Bremen GmbH. Teilvorhaben Wissenschaftliche Begleitung des Netzwerks Qualifizierungswege für An- und Ungelernte, Offenbach

Joint recommendation (2003) by the BMBF, KMK and HRK to the universities to award credit points for further vocational training and credit towards studies in higher education of 26 September 2003

Käpplinger, Bernd (2002): Anerkennung von Kompetenzen: Definitionen, Kontexte und Praxiserfahrungen in Europa, Bonn (available on the Internet at http://www.die-bonn.de/esprid/dokumente/doc-2002/kaepplinger02_01.pdf)

Käpplinger, Bernd (2007): Abschlüsse und Zertifikate in der Weiterbildung, Bielefeld

Käpplinger, Bernd; Reutter, Gerhard (2005): Wege in der Kompetenzerfassung – Begründungen und Entwicklungsstränge. In: QUEM (Hrsg.): Kompetenzdokumentation für informell erworbene berufsrelevante Kompetenzen. Manuscript print, Berlin

Klieme, Eckhard; Leutner, Detlev (2006): Kompetenzmodelle zur Erfassung individueller Lernergebnisse und zur Bilanzierung von Bildungsprozessen. Revised version of the application to the DFG to launch a priority programme

Kloas, Peter-Werner (2002): Zugang zum Studium für beruflich Qualifizierte – ein notwendiger Schritt zur Gleichwertigkeit von allgemeiner und beruflicher Bildung. In: BWP (2) 2002, p. 34–38

Kloas, Peter-Werner (2006): Zugang zum Studium für beruflich Qualifizierte – ein notwendiger Schritt zur Gleichwertigkeit von allgemeiner und beruflicher Bildung. In: BWP (2) 2006

Koch, Christiane; Krings, Ursula (2004): Dokumentation und Zertifizierung nicht-formaler Lernprozesse. Wie geht das in der Praxis? In: Durchblick, Heft 04/2004

Konsortium Bildungsberichterstattung (Hrsg.) (2006): Bildung in Deutschland. Ein indikatorengestützter Bericht mit einer Analyse zu Bildung und Migration. Bielefeld

Kultusministerkonferenz (KMK) (2002): Credit of knowledge and skills acquired outside higher education towards university studies. Resolution of the Conference of Ministers of Education and Cultural Affairs of 28.6.2002. Available at http://www.kmk.org/doc/beschl/anrechnung.pdf

Kuratorium der Deutschen Wirtschaft für Berufsbildung (German Industry Board for Vocational Training) (KWB) (2005): Position der deutschen Wirtschaft. Vorschlag für ein Qualifikationsrahmen- und Leistungspunkte-Modell. March 2005

Landeshauptstadt Hannover (2006): Gemeinsam interkulturelle Stärken leben. Beratungs- und Qualifizierungsangebote. Broschüre des Fachbereichs Bildung und Qualifizierung, Hannover

Mucke, Kerstin (2003): Duale Studiengänge an Fachhochschulen. Eine Übersicht. Bundesinstitut für Berufsbildung

Mucke, Kerstin (2004) Etablierung eines Leistungspunktsystems in beruflicher und akademischer Bildung In: Conference procedings KWB conference "Mehr Attraktivität durch Durchlässigkeit – Neue Formen der Kooperation zwischen beruflicher und allgemeiner Bildung" on 23 June 2004 in Berlin

Mucke, Kerstin; Grunwald, Stefan (2002): Leistungspunktsystem in der beruflichen Weiterbildung – Bereich IT. In: BMBF (Hrsg.) (2002): IT-Weiterbildung mit System. Neue Perspektiven für Fachkräfte und Unternehmen. Documentation, Bonn

Mucke, Kerstin; Schwiedrzik, Bernd (1997): Studieren ohne Abitur. Berufserfahrung – ein "Schrittmacher" für Hochschulen und Universitäten, Berichte zur beruflichen Bildung Heft 206, Bielefeld

Nationaler Pakt für Ausbildung und Fachkräftenachwuchs in Deutschland 2007–2010, Berlin 2007

Niedersächsischer Landtag, 15. Wahlperiode, 114. Plenarsitzung am 8. März 2007: Antwort des MWK

Obermann, C. (2002): Assessment Centre. Wiesbaden

Organisation for Economic Cooperation and Development (OECD) (2004): Education at a Glance. OECD Briefing Notes for Germany

Organisation for Economic Cooperation and Development (OECD) (2005): The Role of National Qualifications Systems in Promoting Lifelong Learning. Report from Thematic Group 2: Standards and quality assurance in qualifications with special reference to the recognition of non-formal and informal Learning, Paris

Organisation for Economic Cooperation and Development (OECD) (2006): Education at a glance. OECD Indicators 2006, Bielefeld

Organisation für wirtschaftliche Zusammenarbeit und Entwicklung (2006a): New OECD Activity on Recognition of non-formal and informal Learning. Guidelines for Country Participation, S. 4

Pforr, Yvonne; Balschun, Boreslav; Vock, Rainer (2006): Evaluation des IT-Weiterbildungssystems. Qualifizierung im Prozess der Arbeit. Eine Auswertung und Beschreibung von Modellversuchen und Forschungsprojekten. Abschlussbericht. Wissenschaftliche Diskussionspapiere des BiBB. Heft 84, Bonn

Pro Qualifizierung (2006): Arbeitsmärkte in der Europäischen Union – Offen und zugänglich für alle? Europäische Migrationsgespräche. Schriftenreihe Migration und Arbeitswelt, Berlin

ProIT Professionals (2004): Projektinformation. Pilotprojekt ProIT Professionals. Brückenschlag zwischen beruflicher und hochschulischer Bildung. TU Darmstadt, http://www.bildungsbuero-koeln.de/pdf/ProIT.pdf

ProIT Professionals (2005): ProIT-Report Nr. 2. Perspektiven mit der neuen IT-Weiterbildung. Eine Umfrage unter Teilnehmerinnen und Teilnehmern der IT-Professional-Weiterbildung, Darmstadt, http://www.proit-professionals.de/dokumente/ProIT-Report_2.pdf

Reetz, Lothar (1999): Zum Zusammenhang von Schlüsselqualifikationen – Kompetenzen – Bildung. In: Tramm, T. (Hrsg) (1999): Professionalisierung kaufmännischer Berufsbildung: Beiträge zur Öffnung der Wirtschaftspädagogik für die Anforderungen des 21. Jahrhunderts. Festschrift zum 60. Geburtstag von Frank Achtenhagen. Frankfurt am Main, p. 35–39.

Reuling, Jochen; Hanf, Georg: OECD Project "The Role of Qualification Systems in Promoting Lifelong Learning". Länderbericht Deutschland. Hrsg. vom BiBB, Forschung Spezial (7), Bielefeld 2004

Rump, Jutta (2004): Der demografische Wandel – Konsequenzen und Herausforderungen für die Arbeitswelt. In: Zeitschrift für angewandte Arbeitswissenschaft, No. 181, 2004, p. 49–65

Sandhaas, Bernd (1986): Bildungsformen. In: Haller, Hans-Dieter; Meyer, Hilbert: Ziele und Inhalte der Erziehung und des Unterrichts. Enzyklopädie Erziehungswissenschaft, Bd. 3, Stuttgart, p. 399 et seq

Schmitt, Arno (2005): Erfassung und Dokumentation von Kompetenzen aus der Sicht von Großbetrieben. In Frank, Irmgard; Gutschow, Katrin; Münchhausen, Gesa (Hrsg.) (2005): Informelles Lernen, Bonn, S. 71–81.

Scholz, Wolf-Dieter (2006): Vom Meister zum Magister, von der Erzieherin zur Diplomandin. Berufliche Weiterbildung als Schlüssel zum Hochschulstudium in Niedersachsen, Oldenburg

Schuldt, K.; Troost, A. (2004): Förderung der beruflichen Weiterbildung. Quo vadis? Progress-Institut für Wirtschafsförderung, Bremen, Teltow

Schwarz-Hahn, Stefanie; Rehburg Meike (2003): Bachelor- und Masterstudiengänge in Deutschland. Empirische Befunde zur Studienstrukturreform, http://www.bmbf.de/pub/bachelor_und_master_in_deutschland.pdf (access date: 26.2.07)

Seidel, Sabine (2005): Berichterstattung zur Weiterbildung in ausgewählten europäischen Ländern. In: Rosenbladt, Bernhard von; Bilger, Frauke; Post, Julia (2005) Konzeptstudie BSW – AES. Nationale und europäische Bildungsberichterstattung im Themenfeld Weiterbildung, München

Sekretariat der Ständigen Konferenz der Länder (KMK) (2002): Anrechnung von außerhalb des Hochschulwesens erworbenen Kenntnissen und Fähigkeiten auf ein Hochschulstudium. Beschluss der Kultusministerkonferenz vom 28.06.2002, http://www.kmk.org/doc/beschl/anrechnung.pdf

Sekretariat der Ständigen Konferenz der KMK (2006): Synoptische Darstellung der in den Ländern bestehenden Möglichkeiten des Hochschulzugangs für beruflich qualifizierte Bewerber ohne schulische Hochschulzugangsberechtigung auf der Grundlage hochschulrechtlicher Regelungen, status February 2006.

Seyfried, Brigitte (2003): Berufsausbildungsvorbereitung und Qualifizierungsbausteine, BWP special edition

Statistisches Bundesamt (Hrsg.) (2000): Bildung und Kultur, Fachserie 11, Reihe 4.2, Prüfungen an Hochschulen 2000, Wiesbaden, p. 231

Statistisches Bundesamt (Hrsg.) (2003): Bildung und Kultur, Fachserie 11, Reihe 4.2, Prüfungen an Hochschulen 2003, Wiesbaden, p. 231

Statistisches Bundesamt (Hrsg.) (2005): Bildung und Kultur, Fachserie 11, Reihe 4.2, Prüfungen an Hochschulen 2005, Wiesbaden, p. 231

Statistisches Bundesamt (Hrsg.) (2006a): Bildung und Kultur, Fachserie 11, Reihe 2, Berufliche Schulen, Schuljahr 2005/2006, Wiesbaden

Statistisches Bundesamt (Hrsg.) (2006b): Fachserie 11, Reihe 4.1, Studierende an Hochschulen Wintersemester 2003/2004, Wiesbaden

Statistisches Bundesamt (Hrsg.) (2006c): 11. koordinierte Bevölkerungsvorausberechnung. Annahmen und Ergebnisse, Wiesbaden

Stieler-Lorenz, Brigitte (2002): Informelles Lernen beim Übergang in die Informations-/Wissensgesellschaft: Konsequenzen für die Unternehmensgestaltung, in: Matthias Rohs (Hrsg.): Arbeitsprozessintegriertes Lernen: Neue Ansätze für die berufliche Bildung. Münster

Stieler-Lorenz, Brigitte (2002): Informelles Lernen beim Übergang in die Informations-/Wissensgesellschaft: Konsequenzen für die Unternehmensgestaltung

Vester, Michael; von Oertzen, Peter; Geiling, Heiko; Hermann, Thomas; Müller, Dagmar (2001): Soziale Milieus im gesellschaftlichen Strukturwandel. Zwischen Integration und Ausgrenzung, Frankfurt

Weiß, Reinhold (2001): Kompetenzentwicklung als Herausforderung der betrieblichen Weiterbildung. In: Becker, M.; Schwarz, V. (Hrsg.) (2001): Theorie und Praxis der Personalentwicklung. Aktuelle Beitrage aus Wissenschaft und Praxis, München

Wissenschaftsrat (1991): Empfehlungen zur Entwicklung der Fachhochschulen in den 90er Jahren, Bonn

Wissenschaftsrat (2004): Empfehlungen zur Reform des Hochschulzugangs, Berlin

Wolter, Andrä (2003): Formale Studienberechtigung und non-formale Bildung in der Lebensspanne – Das Beispiel der Studienzulassung nicht-traditioneller Studierender. In: Straka, Gerald A. (Hrsg.) (2003): Zertifizierung nonformell und informell erworbener beruflicher Kompetenzen, Münster, p. 83–99

Wolter, Andrä (2004): Still ruht der See. Hochschulzugang und soziale Ungleichheit. On the Internet: http://www2.klassenbildung.de/uploads/wolter.pdf

Zentralverband des Deutschen Handwerks (ZDH) and Zentralstelle für die Weiterbildung im Handwerk (ZWH) (2006): Wie werden Qualifizierungsbausteine in der Berufsvorbereitung umgesetzt? Evaluationsbericht. Berlin, Düsseldorf

Zentralverband des Deutschen Handwerks (ZDH): Einstiegsqualifizierung mit Handwerkskammerzertifikat, Berlin 2005

List of diagrams

List of tables

List of abbreviations

ABWF	Arbeitsgemeinschaft Betriebliche Weiterbildungsforschung (Association for Research in Professional Development)
AFG	Arbeitsförderungsgesetz (Employment Promotion Act)
BiBB	Bundesinstitut für Berufsbildung (Federal Institute for Vocational Education and Training)
BLK	Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung (Bund-Länder Commission for Educational Planning and Research Promotion)
BMBF	Bundesministerium für Bildung und Forschung (Federal Ministry of Education and Research)
FRG	Bundesrepublik Deutschland (Federal Republic of Germany)
DFG	Deutsche Forschungsgemeinschaft (German Research Foundation)
DGB	Deutscher Gewerkschaftsbund (German Trade Union Federation)
DIE	Deutsches Institut für Erwachsenenbildung (German Institute for Adult Education)
DIPF	Deutsches Institut für Internationale Pädagogische Forschung (German Institute for International Educational Research)
ESF	Europäischer Sozialfonds (European Social Fund)
EU	Europäische Union (European Union)
FernUSG	Fernunterrichtsschutzgesetz (Distance Learning Protection Act)
GG	Grundgesetz (Basic Law for the Federal Republic of Germany [translator's note: Constitution])
HRK	Hochschulrektorenkonferenz (University Rectors' Conference)

IES	Institut für Entwicklungsplanung und Strukturforschung (Institute for Development Planning and Structural Research)
IGM	Industriegewerkschaft Metall (German Metalworkers' Union)
ICT	Informations- und Kommunikationstechnologien (Information and Communication Technology)
KMK	Kultusministerkonferenz (Standing Conference of Ministers of Education and Cultural Affairs)
KWB	Kuratorium der Deutschen Wirtschaft für Berufsbildung (German Industry Board for Vocational Training)
LKKE	Lernkultur Kompetenzentwicklung (Learning Culture for Competence Development)
QUEM	Qualifikations-Entwicklungs-Management (Qualification Development Management)
SGB III	Sozialgesetzbuch III (Code of Social Law III)

Bundesministerium
für Bildung
und Forschung