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VOCATIONAL TRAINING IN RESEARCH AND PRACTICE

Special Edition

Vocational education and training – new challenges

Recognition of foreign professional qualifications

New forms of learning in the digital age

Mobility and improving qualification

Reflecting on inclusion

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EDITORIAL

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Editorial: Vocational education and training – new challenges

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Dear readers,

This special English edition of BIBB's German-language journal "Berufsbildung in Wissenschaft und Praxis" (Vocational Training in Research and Practice), generally referred to as BWP, highlights some of the recent challenges to be discussed within the professional community and by the interested public at large. The articles compiled in this special edition have been well chosen and published in English in the hope of giving you an insight into current trends and developments within the German system of vocational education and training (VET).

Currently, the challenging situation in regard to high youth unemployment in Europe – constantly reflected by the monthly Eurostat figures – and in many countries turns a spotlight on Germany's dual VET system that combines work-based learning with part-time schooling and leads to quite good employment rates after finishing initial training and receiving a nationally recognised certificate as a skilled worker. According to the latest figures published in our annual data report, each year the majority of young people in Germany still opt for a career start in the VET system that is epitomised by joint responsibility and stake-holding between government, companies and social partners.

And yet, in order to keep our VET system attractive in terms of employability and career opportunities, continuous efforts are needed to maintain and foster its efficiency and competitiveness. However, there is always potential for improvement. Some of these challenges are raised by the focal topics of this special edition, referring as it does to the issues of inclusive education to support VET for disadvantaged young people, or of integrating digital media for learning in the process of work and training. Moreover, in April 2012 a new federal law came into existence supporting the recognition of foreign professional qualifications in Germany. The implementation of this law requires not only excellent knowledge of VET systems in other countries and their respective certificates but also transparency regarding the qualifications and learning outcomes to be certified. Particularly concerning the validation of non-formally and informally acquired skills and competences, the stakeholders in Germany still have a good part of the work ahead of them. However, this kind of transparency is needed to support mobility in vocational education and training as well as to further develop our national qualifications framework. Thanks to a number of joint efforts in the last few years, Germany has raised the percentage of trainees spending some weeks of their apprenticeship abroad to 4 %, although this is still a long way from the envisaged national benchmark of 10 %.

We point out these examples to encourage our respected readers to further improve vocational education and training. In times of shortages of skilled workers and middle management employees, the dual system of VET offers an option for reforms towards work-based learning and employability. In this respect, the BIBB – Germany's Federal Institute for Vocational Education and Training – assumes responsibility for disseminating the main principles of the dual VET system internationally. While taking part in relevant discussions at national, European and international levels, we exchange arguments, continuously update our state-of-the-art knowledge and gain experience in international advisory services. Henceforth, all this will be beneficial to us in complying with the government's objective of establishing the central office for international VET cooperation in Germany within our institute.

Enjoy your reading!

Vocational Education and Training 2020

Consequences for continuing development of the recognised-occupation model

▶ The key challenges for vocational education and training (VET) are demographic change with all its consequences including the implications for securing the skilled workforce, and internationalisation in business and society and the associated task of integration. We must bear these aspects in mind for the continuing development of the VET system – that was one of the central messages at the 2011 BIBB Congress in Berlin. What are the likely repercussions for the continuing development of the model of the recognised occupation? Within the framework of communication between research, policy and practice pursued at BIBB, this question was explored in order to gather answers from the principal players in VET policy, who influence the future elaboration of recognised occupations. This yielded a range of comments that are not only interesting but also practicable, and are presented in this article.

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Prof. Esser_ *What potential does vocational education make available to meet the demand for a skilled workforce?*
Sondermann_ Our vocational education and training system imparts high-quality occupational competences and vocational qualifications. High transition rates into the labour market and low youth unemployment by international comparison underscore the significance of vocational education for the German employment system. The official vocational training statistics for 2011 supply further evidence: for those seeking training places, the situation has improved. Forecasts now assume a rising demand for skilled workers in years to come. Hence the German government and the Länder have agreed to increase total public and private expenditure on education and research to ten per cent of GDP. To that end, central government expenditure on education and research will be increased by twelve billion euros by the year 2013. In part this will be targeted at helping to raise the attractiveness and quality of vocational education and training even further, promoting permeability between the different sectors of education, and improving access to vocational education.

Dr. Scheffler_ Vocational education and training in all its different forms – dual system apprenticeships, full-time school-based initial vocational training and advanced voca-

tional training – is the pivotal element in meeting the demand for a skilled workforce. Targeted preparation programmes for management positions also come into this category. The options for credit transfer and admission to higher education studies for holders of vocational qualifications increase the attractiveness of vocational education and training, and help to ensure a rising proportion of highly qualified skilled workers in the labour market in future.

Bittner-Kelber_ Major challenges in the coming years are demographic change and changing qualification requirements. Initial and continuing vocational education and training are important components for securing the skilled workforce that is the bedrock of every company and can be critical to business success. This depends on companies taking a strategic approach to human resources policy, because by committing to initial and continuing vocational education and training they end up with skilled staff who have the exact qualifications they need as well as strong ties to the firm. Vocational education has a special status in this respect: almost two-thirds of all first-time employees begin their working lives with a dual-system apprenticeship. In future the competition for capable young people will keep intensifying because the number of school-leavers is falling for demographic reasons. That is why companies must also make efforts to attract the young people who have missed out on training so far. Knowledge has developed into a critical resource for the German economy. It is important to maintain and develop this through constant and targeted continuing vocational education for employees.

Prof. Esser_ *How must occupational profiles be designed to ensure lasting employability?*

Dr. Hartwich_ Training occupations should be oriented to the concrete, long-term needs of business. The core aim of initial vocational training is to instil practical occupational competence. The chambers of industry and commerce (IHK) organisation has been assuring training quality for many years through examinations which are geared towards the principle of the skilled occupation but make sufficient allowance for company-specific considerations. It is also important that we do not pack too much in to training regulations. We need a broad range of provision for our young people so that they manage the leap from the school bench to the workbench. To accomplish this, both two-year and three-year training occupations are required. It is high time to leave the stigmatisation of two-year training occupations in the past, where it belongs. Employability is supported by the proven system of dual-system apprenticeships, taught in cooperation between two learning venues.

Giessler_ In our view, modern occupational profiles presuppose a form of vocational education that has to satisfy several requirements:

JOHANNA BITTNER-KELBER

"Almost two-thirds of all first-time employees begin their working lives with a dual-system apprenticeship."

- It is integrated and practical, and takes place within the tried-and-tested dual system.
- It fosters the development of technical, social and methodological competences and qualifications.
- It aims to develop maturity and identity, a sense of responsibility and the ability to take responsibility, as well as quality consciousness and high motivation.
- It equips learners with the competence to shape their own occupational and work biographies.
- It enables people to master different work situations and apply previously-acquired competences in new ways.
- It facilitates co-operation between hierarchical levels and fosters solidarity in action.
- And it lays the foundation for lifelong learning. Even during the initial vocational training phase, this calls for broadly-based occupational profiles, in which learners develop an understanding of interdependencies and a strong commitment to their work.

Prof. Spöttl_ Occupational profiles which only prepare for employability are not ambitious enough. If employability is all that matters, we need do no more than create job profiles that closely match the requirements of individual firms. Occupational profiles have higher aspirations than that. It is all about developing the capability to act appropriately and constructively in the broadest sense: acquiring occupational competence not only equips employees to be deployed flexibly, but also to make their own contribution to society beyond the workplace. Vocational training should play a part in educating mature citizens. Emphasis on the division of labour in the past eroded certain dimensions of the occupational principle. As production processes are restructured and responsibilities are shifted to lower levels, these are now regaining their relevance. With minimal or no division of labour, the important thing is the performance of cross-cutting tasks. Today these are the expression of a new skilled-occupational principle and should be central to the design of occupational profiles. Economic transformation is tending to result in broader tasks, for

PROF. DR. GEORG SPÖTTL

"Vocational training should play a part in educating mature citizens."

THOMAS SONDERMANN

"When occupational groups are created, as many related occupations as possible should be found."

which integrative competence is necessary to perform them effectively.

Prof. Esser_ *Against the backdrop of demographic change, thought is being given to creating occupational groups. What steps are necessary in your view in order to construct occupational groups?*

Dr. Scheffler_ Further consequences will ensue from the programme to develop competence-oriented training regulations. Consideration and comparison of competence expectations will spur on the creation of occupational groups. For the task that lies ahead, the training occupations accounting for the highest numbers of trainees should be systematically prioritised and made the starting point of competence-oriented training regulations for entire occupational groups. An especially congenial solution would be to commission the German government's experts and the members of the KMK framework curriculum committee to develop the requisite company-based fields of activity as a joint task.

Bittner-Kelber_ In creating occupational groups, occupational fields must be identified which are connected, either via common technical training content or via customary or homogenous competences in a sector. Essentially the impetus for the creation of occupational groups should come from the social partners, particularly from representatives immersed in company-based practice. A comparative analysis of several related occupations with overlaps and features, which could be carried out by BIBB – as is currently being done for the industrial metalworking occupations – is certainly very helpful to inform the opinions of all concerned in preparation for the updating or modernisation of training regulations.

Occupational groups are intended to create more transparency for young people and companies and to enable greater mobility between occupations and sectors. Competence-oriented descriptions within the training regulations may help to identify technical crossovers across training occupations, and so facilitate the creation of occupational groups.

DR. ESTHER HARTWICH

"The creation of an occupational group must not reduce diversity in the dual system."

Sondermann_ The modernisation of regulations for training occupations routinely involves giving some thought to the creation of occupational groups. Ideally, creating an occupational group is a way of ensuring that the full diversity of fields of specialisation and occupations are preserved – by instituting mutual recognition of certain examinations and work experience periods – whilst maintaining horizontal mobility on the level of training companies and trainees. In this way, companies may be able to offer more training programmes than they have ever previously considered. Trainees may then be able to spend their first year of training close to home, perhaps in a different occupation than they thought, but without wasting time, because credit for completed periods of training and tests passed can be counted towards a qualification in a different occupational. Whatever else is taken into consideration, thought should be given to defining an explicit programme of initial vocational training in a recognised occupation, and at the same time ensuring the greatest possible flexibility and mobility for all concerned. By the same token, as many related occupations as possible should be found in order to fully exploit the potential for all.

Prof. Esser_ *What possible difficulties might occur in the course of creating occupational groups?*

Prof. Spöttl_ I would like to start by saying that the idea of structuring of training occupations according to occupational groups – or better still, according to core occupations – is to be supported. Currently, however, there are no validated criteria that can be referred to for the creation of occupational groups. Identically worded occupational profile items, structuring according to common core skills, generic key skills and other approaches are inadequate for a convincing structuring of occupational groups. It is recommendable to develop content-based criteria for the creation of occupational groups. This is unlikely to be possible without research work.

Giessler_ There is no generally recognised definition of the concept. Occupational groups must not be created at the expense of the profile of individual occupations; things that do not belong together should not be spliced together.

Dr. Hartwich_ The IHK organisation has increasingly been promoting the creation of occupational groups for many years with its "Dual with choice" model. Since 2008 we have made sure that any procedure for updating training regulations focuses primarily on commonality with existing occupations rather than difference. The creation of an occupational group must not reduce diversity in the dual system to such an extent that companies can no longer provide training. The massive decline in school leavers will

inevitably lead to a debate in the next few years on how many more specialised occupations are really needed. At the same time, if business calls for entirely new occupations it will be under more pressure than ever to justify their existence by means of evidence. We must not lose sight of the fact that new technologies alone are creating new qualification requirements, which must be reflected in existing or new training occupations.

DR. BEATE SCHEFFLER

"Almost two-thirds of all first-time employees begin their working lives with a dual-system apprenticeship."

Prof. Esser_ *Which steps are necessary to promote permeability and compatibility?*

Prof. Spöttl_ The Higher Education Acts of the German Länder now allow people with vocational qualifications to study at universities. Clarity is still needed on what must be done in terms of content in order to encourage careers with this perspective whilst averting the risk of estrangement from the practical world of work. The combination of erstwhile practical experience in the workplace with an academic qualification guarantees highly innovative employees. As yet there is no discussion of whether permeability from universities into the world of work or as preparation for the practical world of work is useful. Why should students at universities not concurrently be able to gain vocational certificates from chambers? To make this possible, chambers, continuing education providers and others must change their admission regulations. Another little-discussed question is how lifelong learning can meaningfully be realised. Combinations of employment and studies and consecutive phases of initial and continuing vocational education and training need further clarification.

Giessler_ Recognition of competences acquired in the previous stage of education is important. Coordinated curricula are required to facilitate this, along with more information on the options for vocational progression. Merely implementing the KMK guideline on university admission for those with occupational experience but without a university entrance qualification does not go far enough. We need more guidance options; there are too few bridges into higher education study, and precious little adaptation of curricula to this group of students with occupational experience. Study programmes compatible with employment are in short supply, particularly at the public universities. All findings point to this as a clear area of demand.

Dr. Hartwich_ Education and training initiatives – either at central government or at regional level – have been dealing with precisely this challenge for some years. The outcomes of various initiatives such as JOBSTARTER CONNECT, DECVET or ANKOM must be evaluated jointly with all stakeholders before launching new support programmes or research projects. Re-examining the need for new structures or regulations is another aspect of this. The framework conditions in vocational education have changed since the year 2005. For example, the declining numbers of applicants in the apprenticeship place market have made companies much more open when it comes to filling their training places. The universities, too, are increasingly opening their doors to holders of vocational qualifications. In this respect the negative tendency of the demographic trend can become a positive driver for changes in the education system.

Prof. Esser_ *How will the German national qualifications framework (DQR) influence the development of initial and advanced training regulations?*

Bittner-Kelber_ The mapping of initial and advanced vocational training regulations to the DQR delivers proof of the high quality and action-orientation already achieved in these areas of training. The competence profiles drawn up for the levels of the DQR will be used as an important indicator when elaborating them in future.

Dr. Scheffler_ The development of a European and, subsequently, a German qualifications framework is an essential foundation if cooperation in the field of vocational education up to the year 2020 is to be based on reliable instruments. The development of the DQR has not been an easy process in Germany because it forces us to question traditions. The decisions on levels that have now been reached and the development projects commissioned have created a good basis for further development of vocational education and training. Another necessary approach is the building of bridges to non-formal and informal learning, which is one of the aims of the EQF. With regard to the strategic objective of "realisation of lifelong learning and mobility", it is an absolute necessity to institute better linkages between formal validation and informal or non-formal learning pathways. Here we should make use of the experience of other EU Member States.

Sondermann_ By referring to the descriptions of the eight DQR levels in terms of learning outcomes, the equivalence of the competences acquired in different learning and work contexts can be made visible. What we are already noticing very clearly, however, is that the introduction of the DQR is prompting new questions for vocational education and training, and reinvigorating old topics:

- The stepped nature of the DQR levels, for example, is a direct way in to the theme of permeability. Erecting a "Stop" sign on any of the steps, or leaving one in place, is unacceptable.

THOMAS GIESSLER

"Today more than ever, employees need all-round vocational and social competences."

- Continuing efforts must be made to disseminate and encourage thinking in terms of the categories of learning outcomes. For example, in regulatory instruments: the policy of framing training regulations in terms of action-orientation since 2005 has already had major effects in that area. It is now time to promote equivalences even beyond the boundaries of the vocational education system.

Prof. Esser_ *Does the model of the recognised occupation offer the necessary flexibility to cope with future challenges?*
Giessler_ Yes! Today more than ever, employees need all-round vocational and social competences in order to hold their own in the face of changing conditions. The foundations for this must be laid in a broadly based and not overly specialised initial vocational training programme. Employees must be in a position to think independently and competently evaluate and shape their living and working conditions – for they are increasingly forced to return to the job market repeatedly to offer their labour, and called upon to take responsibility for their own work biographies. Employees need all-round competence to act appropriately and constructively – as a prerequisite for a participatory style of organisational development. Teaching this in the course of company-based training is demanding, and calls for special skills and methods of didactic communication.

Dr. Hartwich_ Another definite "yes!" from our point of view. Almost 340,000 new training contracts in industry and commerce alone in the year 2011 show that dual-system initial vocational training is still young people's first choice. The dual system of initial vocational training has undergone continuous further development in recent years. We now have in-company introductory training (Einstiegsqualifizierung – EQ and EQ+), a form of provision for integrating less able young people into initial vocational training. For more able young people we are making greater use of highly codified additional qualifications within training regulations. Options for differentiation, such as the different contexts in which the industrial electrical and metalworking occupations are required, give companies flexible vocational training concepts that are supplemented with internal examinations such as the "workplace task" (betrieblicher Auftrag). Nevertheless we should also focus more efforts on dual study courses in future. In our view, there is still more potential here which we could attract into dual system initial vocational training.

Prof. Spöttl_ The design of occupational profiles and the model of the recognised occupation offer sufficient means of responding flexibly to future challenges. The introduction of core skills and occupation-specific skills and the orientation to work processes allow us to bring occupational profiles into line with new challenges very rapidly. In recent years, however, Germany has adopted something of a fast-track approach to inventing new occupational profiles: easily 15 to 18 updated occupational profiles as well as ten new ones have been drafted in the course of a single year. This seems to run counter to what is thought appropriate. The main emphasis is on sectoral occupations with a high degree of specialisation, instead of looking for broad occupational profiles or experimenting with core or foundation occupations which could then be prudently refined – e.g. with carefully chosen fields of specialisation/specific focuses – to add depth.

Dr. Scheffler_ The concrete occupational profiles set out in the regulatory instruments should serve as the foundation, even in a significantly more flexible system of vocational education and training. One promising option that I see is the development of core occupations. Initial vocational training for these should take no longer than three years. Around these initial vocational training programmes, a system specialisations, advanced and continuing education modules, certificates and evidence of qualifications could be envisaged, always adapted to the requirements of the particular company. Whatever changed, employees would quickly be in a position to adapt to the new demands of their job.

Bittner-Kelber_ The recognised-occupation model represents a form of initial vocational training that imparts all-round occupational competence by virtue of its integrated approach. Combined with the possibility of specialisation, differentiation or additional qualifications, the recognised-occupation model can respond flexibly to future challenges while ensuring high quality initial vocational training.

Sondermann_ Germany's strength in vocational education and training is thanks to the model of the recognised occupation within the dual system! Nevertheless, thought must be given to how far this system really enables all young people to complete initial vocational training successfully and then to embark on worthwhile employment. Creating training modules brings us closer to this objective, as long as they are used sensibly, for limited periods of time and amounts of learning, and in tried-and-tested areas. This approach should not be confused with an entirely module-based programme of initial vocational training, as is standard practice in certain other countries. ■

Recognition of foreign professional qualifications – the Federal Government's new Recognition Act

▶ Many members of the working population in Germany possess professional qualifications which they have gained abroad and which are urgently needed on the German labour market. In the past, these people could often not be optimally employed due to the absence of standards and procedures to assess their qualifications. The Assessment and Recognition of Foreign Professional Qualifications Act ("Recognition Act"), which entered into force on 1 April 2012, introduces a standardized national procedure and criteria for the assessment of foreign professional qualifications – at least for professions that are regulated by Federal law. It improves the opportunities for people who gained their qualifications abroad to work in their trained profession. The Act also makes Germany a more attractive workplace for international skilled staff. This article provides background information on the history of the legislation, introduces some of the most important contents and finally identifies further action required to implement the Act.

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Why the need for this Act?

The Law to improve the assessment and recognition of foreign professional qualifications, also known as the Recognition Act,[1] must be seen in the context of the effects of demographic change on the supply of skilled workers within Germany (cf. MAIER/RUPPRECHT 2012). The health care professions, the care sector, education occupations and the so-called MINT subjects[2] in particular are already showing signs of a lack of qualified personnel. According to current forecasts, the number of school leavers will shrink by about one quarter by 2025. Many training companies are already feeling the effects of the declining number of applicants for training under the dual system.

Because of this, the Federal Government and the *Länder* agreed at the Education Summit in Dresden in late 2008 to introduce targeted measures to mobilize untapped skills in Germany and to focus their attention on professional qualifications and vocational qualifications acquired abroad. The project to improve the legal framework conditions and the procedure for recognizing foreign qualifications has thus been an issue of common interest to the Federal Government and the *Länder* from the very beginning. Key data from the Microcensus indicate that Germany has considerable potential with regard to the availability of skilled labour with foreign qualifications. Population statistics for 2008 indicate there are about 16 million people with a migration background, of whom nearly 2.9 million have foreign professional qualifications. It is assumed that people will be interested in a formal assessment of their foreign qualifications, especially those people who are registered as unemployed or are working below their level of qualification. An estimate by the Federal Ministry of Education and Research (BMBF), calculated on the basis of a special analysis of the 2008 Microcensus by the Federal Statistical Office, places the number of those interested in an assessment of their foreign qualifications

1 *The Job AQTIV Law of 06/12/2011, BGBl. Part I, Nr. 63, p. 2515*
2 *Mathematics, Informatics, Natural Sciences, Technology*

under the new federal law at about 285,000. This estimate is based exclusively on the number of people with a migration background and with foreign professional qualifications living in Germany, who are now entitled to an assessment procedure for the first time. The qualifications structure of this potential workforce is quite interesting because it contradicts the common assumption that people with foreign professional qualifications are mainly university graduates – calling to mind the cliché of the taxi-driving doctor. However, the majority of people with foreign professional qualifications living in Germany completed vocational training or gained other credentials qualifying them to enter a profession (246,000), followed by the group with *master craftsman (Meister)* or technical qualifications (23,000). The number of those with a degree from a university or university of applied sciences is actually quite small (16,000). This means that the greatest potential is to be found in professions that are regulated by the Vocational Training Act (BBiG) and the Crafts Code (hereafter called "training occupations") and for which the Recognition Act for the first time grants entitlement[3] to a procedure to assess the equivalency of foreign qualifications with a German reference qualification.

How and what does the Recognition Act regulate?

The Recognition Act seeks to standardize the procedure and criteria for the assessment of foreign professional qualifications for some 450 professions regulated at federal level. Specialist *Länder* laws govern the 18 professions regulated at *Länder* level – which include teachers, kindergarten and nursery school teachers, and engineers – as well as initial training and advanced qualifications. University degrees that do not certify job-specific skills and cannot be clearly associated with a German reference occupation (degrees in economics, for example) are not regulated by the Recognition Act.[4] Also the Act does not affect what is known as "academic recognition" – the assessment of school and university records and examinations for the purposes of continuing a course of study in Germany.

STRUCTURE OF THE ACT

The Recognition Act is a so-called omnibus act. In addition to the new federal "Professional Qualifications Assessment Act – BQFG" in Article 1, which largely concerns the roughly 350 training occupations, its 60 additional articles contain amendments and adaptations to virtually all the specialist laws and ordinances governing nearly 40 occupations regulated at federal level. The professions affected range from those regulated by the Federal Medical Code to the Driving Instructor Act. The new Act also amends the specialized laws for 41 regulated *Meister* (master craftsmen) occupations in skilled crafts.

Any provisions of the specialized laws take priority over the BQFG, although many of these provisions are actually based on, or refer to, the BQFG. Among other things, European legislation, in particular the EU Directive on the Recognition of Professional Qualifications, grants priority to the regulations in these specialist laws.[5] The EU Directive regulates the procedures for EU citizens to gain access to or pursue a regulated profession in another Member State, and is binding, at least as concerns national regulations on the recognition of EU/EEA qualifications. The regulatory concept in the adaptations to specialized laws in the Recognition Act also largely applies to third-country nationals or to qualifications gained in third countries.

DIFFERENCE BETWEEN REGULATED AND NON-REGULATED PROFESSIONS

An equivalency review is always a standard part of the licensing procedure for the regulated professions. Determination of the equivalence of a foreign qualification is one of the prerequisites for working in the given profession in Germany at all. In the spirit of the free movement of persons and services, the EU Directive seeks to enable nationals of the Member States to pursue a profession, in a self-employed or employed capacity, anywhere within the EU. In cases where significant differences in training and skills are determined which cannot be offset by professional experience, there are provisions for compensation measures in the form of aptitude tests or adaptation periods. The Recognition Act also extends the rights to these formalized compensation measures to third-country nationals or persons who gained qualifications in third countries.[6]

3 *Prior to the introduction of the Recognition Act, the right to an assessment of foreign qualifications in the training occupations was only granted to ethnic German resettlers. This was based on a ruling in the Federal Expellees Act - BVFG (Section 10 BVFG), which remains effective.*

4 *The Central Office for Foreign Education (ZAB) is responsible for the certification of these diplomas and degrees for use in pursuing further education and for employment as stipulated by the so-called Lisbon Convention(Convention on the Recognition of Qualifications concerning Higher Education in the European Region of 11 April 1997, Federal Law Gazette 2007 II, p. 712)*

5 *Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications, OJ L of 30.09.2005, p. 22; L 271 of 16.10.2007, p. 18; L 93 of 04.04.2008, p. 28; L 33 of 03.02.2009, p. 49, last amended by Directive (EC) Nr. 279/2009, OJ. L 93 of 07.04.2009, p. 11.*

6 *A special provision applies to the skilled trades by which the determination of equivalency may be restricted to one or more main activities if the applicant intends to become self-employed in a trade which requires a licence (Annex A of the Craft Trades Law). In these cases, only a partial equivalency review is possible.*

In contrast, the non-regulated training occupations do not need to be recognized for someone to pursue employment in such occupations. Certification of recognition is instead a means of providing transparency for employers and job centres to better assess a foreign qualification and thus more easily employ and place applicants in jobs commensurate with their qualifications. Under the new law, however, a certified equivalent foreign qualification bears the same legal consequences as the completion of a (further) training examination under the Vocational Training Act (BBiG) or a journeyman's examination.

EQUIVALENCY REVIEW

The review under BQFG is always based on the corresponding German qualification. Equivalence is established if the foreign qualification certifies skills and abilities similar to those in the corresponding German vocational qualification and provided there are no significant differences between the professional qualification gained abroad and the German reference occupation.

The BQFG adopted the regulatory concept of the EU Directive and stipulates that cases of significant differences between the foreign qualification and the German equivalent must be reviewed with a view to whether these differences can be offset by relevant work experience, continuing education and training or other additional qualifications. This scenario is especially relevant when periods of practical training are lacking as they play only a subordinate role in many of the training programmes abroad.

The BQFG did not adopt the regulation on the formalized compensation for skills deficits through measures. This is because it is possible to pursue employment in the non-regulated professions without certification of equivalence and because a legal entitlement to obtain qualifications would discriminate against people who gained their qualifications in Germany. The BQFG instead makes provisions for recording the existing qualifications and deficits in the notification that declines recognition when significant differences in the non-regulated professions are determined. This document provides the greatest possible transparency for people with foreign qualifications and for employers. The notifications are also useful as orientation for in-company or other continuing education and training.

What remains to be done?

Regardless of what future regulations on labour migration to Germany may look like, the increasing mobility of international professionals will definitely call for procedures and institutions that are capable of making a competent assessment of foreign professional qualifications. The issue of qualification features as one if not *the* decisive factor in all models of immigration control and management.
It is now up to all the responsible players to ensure the effective implementation of the law and to initiate the necessary supportive regulations and measures. Essentially, this calls for four key measures.

Who is entitled to an equivalency review?

The BQFG grants any person who has the intention to work in Germany and has gained a foreign professional qualification the right to an equivalency review. Strictly informal qualifications – gained, say, through work experience only – are not sufficient for recognition. Unskilled or semi-skilled workers without a formal vocational qualification are therefore not entitled to a review.

Under the Act applications for an equivalency review can be made either within Germany or from abroad and regardless of nationality or residence status. In this regard the law applies both to people who have already migrated to Germany and to qualified persons living abroad. In the area of the regulated professions, the law has done away with the so-called 'nationality proviso' which still applied to some professions and amounted to making German citizenship a precondition for practising these professions. A Turkish doctor can now be licensed to practice medicine in Germany.

FURTHER STANDARDIZATION OF LEGAL BASES

The Federal Government and the *Länder* agreed under the Qualification Initiative for Germany to standardize the legal bases for the assessment of foreign professional qualifications. It is now the task of the *Länder* to create regulations modelled on those at Federal level for the recognition of qualifications in occupations for which they are responsible. In December 2010, the Minister-Presidents of the *Länder* already spoke out in favour of the "accelerated establishment of standard and non-bureaucratic regulations for a recognition procedure of the Federal Government and the *Länder*". The model law, which the *Länder* have already put to the vote, represents a first step in this direction. The adjustments to the specialized laws that are necessary will take place in the course of 2012 in some *Länder* and by mid-2013 at the latest in the others.

It would in the interest of the Federal Government and the *Länder* to extend the recognition procedure to third-country nationals with appropriate qualifications – especially as concerns occupations where there is high demand for skilled labour such as in nursing, teaching and engineering. In an increasingly international market for skilled staff, neither the particularities of German labour law nor the fine details of the distribution of responsibilities under the federal system in Germany should constitute grounds for the exclusion of certain professions from the German labour market (cf. SCHANDOCK/BREMSER in BWP 5/2012).

STANDARDIZED ENFORCEMENT

Ensuring the broadest possible degree of standardization when enforcing the new recognition regulations of the Federal Government and the *Länder* will require:

- extensive standardization of the administrative procedures regulated by Federal and *Länder* law
- the greatest possible pooling of procedural competences, which up to now have been regulated differently in the Länder and varied greatly,
- the targeted development of expertise among the authorities responsible for the assessment of foreign qualifications, and
- consistent and, above all, practice-related monitoring of enforcement.

The Federal law already largely takes account of the desired standardization of administrative procedures. It achieves this through the application of standardized assessment benchmarks in an equivalency review of foreign qualifications, the introduction of procedural deadlines, the possibility of pooling the tasks of the responsible authorities, the inclusion of federal statistics that serve as a basis of the monitoring process, and an evaluation requirement. In addition to the evaluation required by the law, the Federal Government has also committed itself to introducing a system to monitor enforcement of the law in the short term. Preparations are currently under way to add this task to the area of responsibility of the BMBF.

Standardized enforcement of the law is best achieved when responsibilities and competences are pooled to ensure that procedures are seamless. One example of the institutional concentration of tasks is the central agency IHK-Fosa, which is responsible for the recognition of qualifications in the professions in the remit of the Chamber of Industry and Commerce (cf. Pfister/Treu in BWP 5/2012). The craft and skilled trades sector has adopted a model in which competences are specifically concentrated at individual Chambers within the Länder and for certain professional groups (cf. Kramer/Witt in BWP 5/2012). The Federal Government is promoting the development of expertise within the responsible authorities in charge of the training occupations. The BQ-Portal sponsored by the Federal Ministry of Economics and Technology provides information for decision-making and support in administrative enforcement (cf. Michalski/Riesen/Strauch in BWP 5/2012). The objective of the BMBF-funded project PROTOTYPING is to standardize so-called 'qualification analyses', which are the procedures by which the responsible authorities can determine professional skills and abilities when formal documentation is insufficient (cf. Oehme in BWP 5/2012).

The Länder – which are not only responsible for the enforcement of their own recognition laws but also for that of the Federal law governing the regulated professions – must also take appropriate measures. The working group of the *Länder* ministries, which was instituted in 2011 and is responsible for the coordination of recognition policy, has adopted a common agenda that includes the introduction of uniform fee structures, the greater development of expertise in the health care professions at the responsible Länder authorities, and the pooling of competence within, and possibly among, the *Länder*. As a first step, there should only be one responsible authority for every occupation in each *Land*. These efforts will be reviewed for the first time in a report that is to be presented to the Minister-Presidents at their annual conference in October 2012.

DEVELOPMENT OF INFORMATION AND COUNSELLING SERVICES

Since the competences for occupational law and therefore for the recognition of foreign professional qualifications are so varied, information and counselling services for those seeking recognition that is tailored to individual circumstances have either been set up or are being expanded – particularly abroad. The BIBB's www.anerkennung-in-deutschland.de online portal, which was launched on behalf of the BMBF, provides a source of information that addresses applicants for recognition in Germany as well as skilled staff abroad (cf. Moravek in this issue). A hotline operated by the Federal Office for Migration and Refugees or local contact points set up under the federal funding programme "Integration through Qualification (IQ)" provide personal counselling services (cf. Baderschneider/Döring in BWP 5/2012).

The Federal Government will optimize these information and counselling services in the upcoming years in coordination with the Länder. It is a medium-term goal to empower the institutions responsible for labour market counselling services for skilled staff to also provide advice on questions of professional recognition. It makes sense to bestow the Länder with the responsibility for providing counselling services at 'welcome centres', particularly to skilled workers newly arrived from abroad. Hamburg and some of the other Länder have already set up such centres or have plans to do so.

An initiative at the Federal level is also needed to develop an overall approach to attracting skilled people and students from abroad. It must align the various information services and take account of the often complex counselling needs of people interested in coming to Germany.

PROVIDING RETURN-TO-LEARN PROGRAMMES

The fourth focus area is development of flexible second-chance training and return-to-learn programmes in conjunction with the recognition procedure as well as the

development of corresponding funding tools. This is important because not every applicant for recognition will obtain certification of equivalence at the end of a review. In time, the documentation of training shortfalls in the notifications that are issued – especially to applicants in the non-regulated occupations – will create a demand for corresponding training programmes (cf. KRAMER/WITT in this issue).

The regulations of the Act create entirely new requirements on both the supply and the demand sides. The demand for modular courses or other training that is highly individualized is one new aspect. Everyday practice will show whether standardized continuing education programmes or tailored in-company qualification is more effective.

Another new aspect is that people who may have completed training in a field which is not a recognized type of initial or further training will be seeking to continue their education. This is precisely why the existing instruments and requirements for receiving individual funding for continuing education and financial support during training (age limitations, restrictions to certain stages of training or content) are not applicable. Alterations to the range of funding instruments are therefore also on the agenda. There is clearly still a lot of work to be done. ■

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Ways through the jungle of competences

Pre-application information and advisory provision for individuals seeking recognition

▶ People who are trying to obtain recognition of a foreign qualification so that they can work in Germany require a great deal of information about the legal bases of the various possible recognition procedures, and about the German vocational education and training system and labour market. Only then can they work out whether a procedure is worthwhile and where they can apply for an equivalency review. The article points out the challenges faced by individuals on the way to applying successfully for recognition of their occupational qualifications, and what information and advisory provision is available to support them.

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What individuals seeking recognition should find out before they apply

An electrotechnician from Poland, a teacher from Vietnam or a medic from Turkey – individuals seeking recognition[1] normally do so in the aim of finding employment in the German labour market which matches their qualifications. Recognition of their foreign occupational qualification can be a crucial stepping stone. Some applicants, if their occupational qualifications fall within the Federal Government's responsibility in Germany, stand to benefit from the recent Federal Recognition Act.[2] Apart from gathering all the necessary evidence and translations required for the recognition procedure, applicants for recognition need to find out about the content of initial vocational training for German reference occupations and the German qualification bodies responsible for them, the legal regulations of the various possible recognition procedures, residency and labour law (particularly for non-EU/EEA citizens), and the structure of the German labour market. Only then will they be able to assess whether a recognition procedure is worthwhile for their career prospects in Germany, what chances they have of successful recognition, and which institution is responsible for dealing with their application.

Applicants for recognition should identify their German reference occupation

A Polish skilled worker from Warsaw who has worked in a recycling company in his home country for years decides

1 *The term "individuals seeking recognition" (German: Anerkennungssuchende) refers to people who are trying to obtain recognition of their foreign occupational qualification.*

2 *The "Federal Recognition Act" is the shortened title of the "Act to improve the assessment and recognition of foreign vocational and professional qualifications" (Gesetz zur Verbesserung der Feststellung und Anerkennung im Ausland erworbener Berufsqualifikationen, 6.12.2011, BGBl, Part I, p. 2125). The "Professional Qualifications Assessment Act" (Berufsqualifikationsfeststellungsgesetz, BQFG) cited in this article is incorporated as Article 1 of the Federal Recognition Act.*

to look for work across the border in Frankfurt an der Oder. He translates the Polish wording of his qualification into German and the result is along the lines of "Electrotechnician in the Waste Management Industry".[3] He now wants to submit an application for recognition of his foreign qualification for this occupation. Whether or not he needs to have his qualification recognised in order to practise this occupation in Germany depends upon whether or not the German reference occupation is a regulated one.[4] The reference occupation also determines whether there is any legal entitlement to a recognition procedure (cf. FOHRBECK in BWP 5/2012). Identification of the right reference occupation is therefore the starting point of any recognition procedure.

At this point, the Polish worker is confronted with his first challenge: in Germany, "electrotechnician" is not an unmistakable reference occupation, but rather, an informal collective term for occupations that involve electrical and technological tasks. A qualification as an "electrotechnician" might equate to a completed dual system apprenticeship, an advanced vocational training qualification regulated under Land law, or a graduate occupation. For each of these three possible options, different legal bases are currently in force for recognition of the foreign qualification.

For example, if the applicant has a qualification that is comparable, in terms of training content and occupational experience, with the German reference occupation of "Electronics Technician for Automation Technology", then according to the new Federal Recognition Act he has a legal entitlement to a recognition procedure because this is an occupation that falls within the competence of the Federal Government. It is a dual system training occupation that is not regulated in Germany beyond the apprenticeship level. If the Polish skilled worker is not aiming for recognition at master craftsman level, then he need not have his qualification recognised but could apply directly to a German company. However, the statement of equivalence may be useful in finding a job because it gives employers or the labour administration information about the applicant's occupational qualification. The example shows that merely translating the title of the Polish occupation does not give the Polish applicant any definite information on which German occupation his qualification will be equivalent to for recognition purposes, or which body he can apply to for recognition.

The reference occupation determines which body should deal with the application

In Germany there is no central body that is responsible for processing applications and conducting recognition procedures. While the Federal Recognition Act put in place legal provisions for the recognition procedures for the occupations regulated at Federal Government level, the fact remains that the 16 German Länder are responsible for implementing the federal law. For every occupation, each of the Länder has its own competent bodies, authorities or institutions which are responsible for reviewing the foreign occupational qualification's equivalence to a German reference qualification on the basis of current legal and procedural regulations. At present the "Recognition Finder" database on the "Recognition in Germany" portal for individuals seeking recognition lists more than 1,000 different competent bodies nationwide, which are responsible for recognition procedures for the approximately 700 occupations governed by federal law. The competent bodies are also responsible for conclusive identification of the reference occupation. For example, the Federal Recognition Act (§ 8 BQFG) states that for non-regulated dual system training occupations5 the chambers (chambers of skilled crafts and trades, chambers of industry and commerce foreign skills approval competence centre, chambers of agriculture, etc.) are the competent bodies for the occupations within their sectors. For the regulated occupations, e.g. the medical occupations requiring academic training, responsibility depends on the relevant law on qualifications and the regulations in force in the 16 German Länder. In addition, the Länder are responsible for the occupations not regulated in Land law, although there is no legal entitlement to a procedure for these at present. The Länder are currently working on their own statutory provisions for the occupations regulated at Land level, using the Federal Recognition Act as a framework.
What this means with reference to the above example is that although the electrotechnician from Warsaw is not yet registered at an address in Germany, he has to apply to a competent body in a specific region, in his case Frankfurt an der Oder because that is where he wants to work.

Further skills are an advantage

If the Polish applicant can present the local competent body with all the necessary documentation for his application, then he has accomplished a first, important step: the groundwork for submitting an application is done. Nevertheless, in comparison to a citizen from a third coun-

3 The case examples are anonymised descriptions of applicants who have submitted an enquiry to the "Recognition in Germany" information portal: www.anerkennung-in-deutschland.de

4 Regulated occupations are occupations which, under legal or administrative regulations, may only be entered and practised once in possession of certain occupational qualifications (cf. §3 para. 5 BQFG).

5 In this respect the BQFG is dependent upon the Crafts and Trades Regulation Code and the Vocational Training Act.

try outside the EU or the EEA, this groundwork has been relatively straightforward for him. Consider a Vietnamese primary school teacher, for example, who would like to enquire from abroad as to whether her qualification will allow her to work as primary teacher in Germany and whether she can have her occupational qualification recognised for that purpose. She faces a rather more difficult process despite the good labour market opportunities in this occupation. In contrast to the Polish electrotechnician, who may travel to Germany at any time as an EU citizen and has had unrestricted access to the German labour market since free movement was opened up to workers from new EU Member States in 2011, the Vietnamese woman must first look into obtaining a visa and whether she is allowed to work in Germany at all, prior to applying for a recognition procedure.

Table **Information and advisory provision for individuals seeking recognition**

Information online and by telephone		
Form of provision	**Contact**	**Target group**
Recognition in Germany – official online portal for the Federal Recognition Act	Federal Institute for Vocational Education and Training (Bundesinstitut für Berufsbildung, BIBB) www.anerkennung-in-deutschland.de	Applicants for recognition based in or outside Germany
Telephone hotline on the Recognition Act **Advice on rights of residence and abode** (service for citizens)	Federal Office for Migration and Refugees (Bundesamt für Migration und Flüchtlinge, BAMF) Available Monday to Friday from 09:00h to 15:00h on +49 30 1815-1111. www.bamf.de	Applicants for recognition based in or outside Germany
Advice on and issuing of diploma evaluations for non-German university qualifications not leading to a regulated profession or occupation	Central Office for Foreign Education (Zentralstelle für ausländisches Bildungswesen, ZAB)	Recognition applicants with academic occupational qualifications based in or outside Germany
Advice on the EU Professional Qualifications Directive	www.kmk.org	Applicants for recognition based in or outside Germany
Information and guidance in person		
Recognition counselling offices, 34 regional offices, nationwide	"Integration through Qualification" network www.netzwerk-iq.de	Applicants for recognition based in Germany
Law-based guidance on the labour market by the Central Placement Office (Zentrale Auslands- und Fachvermittlung, ZAV)	Federal Employment Agency (Bundesagentur für Arbeit, BA)	Applicants for recognition based outside Germany
Guidance for job-seekers with a foreign vocational qualification, offered by agencies and job centres	www.arbeitsagentur.de	Applicants for recognition based in Germany
Guidance for recognition applicants before and during the application process	Competent bodies such as sectoral chambers, district governments etc. Contact via: http://www.anerkennung-in-deutschland.de/html/de/68.php	Applicants for recognition based in or outside Germany
Guidance for recognition applicants before and during the application process	Charitable welfare associations, foundations, refugee guidance centres, migrant organisations Contact via: http://www.anerkennung-in-deutschland.de/html/de/85.php	Applicants for recognition based in or outside Germany

A German citizen of Turkish origin who graduated in medicine 30 years ago in Turkey but has never worked in that profession will not, in all probability, obtain a job as a doctor even with a positive certificate of equivalence. People who are trying to obtain recognition of a foreign qualification so that they can work in Germany not only need to know the reference occupation and the conditions of residency and employment law but also the mechanisms and structure of the German labour market, in order to decide whether or not a recognition procedure is actually worthwhile for them. Being able to demonstrate relevant work experience is a decisive factor, for example. But in the same way, it is also important to know whether the occupation practised abroad is actually familiar in Germany and whether there is any demand for it in the German labour market. This should be researched before making an application.

How information and advisory provision supports individuals seeking recognition

As the examples show, without professional support in the form of competent guidance or sources of clear information, many people who try to obtain recognition of their foreign occupational qualification face major challenges even in completing the groundwork for an application.
For this reason, to ensure that individuals living in Germany and abroad can benefit from the new Recognition Act when seeking recognition of their qualifications, the German Federal Government has flanked the Recognition Act's entry into force by reinforcing existing structures and creating new information and guidance services such as the online portal "Recognition in Germany", from which the three people in the case examples were able to obtain help. But that is not all: assistance is available to individuals seeking recognition from the Länder, from industry and welfare associations and from the labour administration. Online, over the phone or in a face-to-face consultation, individuals seeking recognition can now receive support on their way to submitting an application.

PRELIMINARY INFORMATION ONLINE AND VIA HOTLINE

Individuals seeking recognition, based in Germany and abroad, can obtain all the basic information before and during their application procedure from the website "Recognition in Germany",[6] the official online portal for the Federal Recognition Act. The core service of "Recognition

6 *The portal "www.anerkennung-in-deutschland.de" has been published by BIBB on behalf of the BMBF since April 1, 2012. It is supported within the framework of the „Integration through Qualification (IQ)" programme, which is jointly funded by the Federal* ▶

in Germany" is to act as a digital guide – the Recognition Finder – which guides individuals seeking recognition and their advisers through the jungle of regulations and competences described above. With the help of the portal, for example, the electrotechnician from Warsaw could be pointed in the direction of the right competent body. The Recognition Finder helped him to pin down his reference occupation. All he had to do was enter keywords describing his occupation, like "electrical" and "technician", into the Finder. He promptly received a selection of possible reference occupations and a description of the tasks that are carried out in these occupations. After selecting the most suitable occupation and picking his chosen locality, he landed on a results page which told him which competent body to apply to and provided its contact details. At the same time, it told him all the other essential information about how the procedure worked, the documents he needed to submit, the legal bases, and advisory provision in his region.

The teacher from Vietnam is dependent upon the Internet as her source of information, since she cannot visit a counselling office in Germany. Because the content of the "Recognition in Germany" portal is available in English as well as German, the website helped her to obtain the necessary information from abroad.

Individuals seeking recognition from Germany and abroad who want to enquire by phone about possible recognition of their occupational qualification can contact the telephone hotline of the Federal Office for Migration and Refugees (BAMF).

INFORMATION AND GUIDANCE IN PERSON

The "Integration through Qualification" network supported by the Federal Government (cf. footnote 6) was further expanded as part of the Recognition Act, partly to guarantee that information and guidance for individuals seeking recognition would be available nationwide. So far 34 IQ counselling offices have been established. They provide preliminary information and refer individuals seeking recognition to the relevant competent body (cf. Baderschneider/Döring in BWP 5/2012). The labour administration, the jobseekers' benefits agencies and other competent bodies based in chambers or regional administrations are also providing guidance on the new recognition procedures. Furthermore, at regional and municipal level there are numerous advisory and contact centres for migrants which can provide advice on matters including the Federal Recognition Act, drawing upon decades of experience in this field in some cases.[7]

▶ *Ministry of Education and Research (BMBF), the Federal Ministry of Labour and Social Affairs (BMAS) and the Federal Employment Agency (BA).*

7 *Overview of nationwide information and advisory services in Germany at: http://www.anerkennung-in-deutschland.de/html/en/8.php*

Publicise sources of preliminary information

The amount of background knowledge that recognition seekers need to have, merely in order to complete the groundwork for submitting an application, cannot reasonably be taken for granted even if the person has been living in Germany for many years. Particularly for those applicants who have learnt German as a second language or are still in the process of acquiring German language skills, the regulations and conditions for the recognition of foreign qualifications present a particular challenge. It is therefore no wonder that in the early months since the Recognition Act took force, the demand for advice and preliminary information has been extremely high. By comparison, however, only low numbers of applications have been submitted, on the evidence of early reports from the chambers and counselling offices (cf. Pfister/Treu and Kämer/Witt in BWP 5/2012).

Another indication of the immense need for basic, preliminary information on the procedure is the heavy use of the newly created "Recognition in Germany" information portal and the telephone hotline of the Federal Office for Migration and Refugees (BAMF), as well as the high demand experienced by the IQ Network's recognition counselling offices. The "Recognition in Germany" portal received almost 100,000 visitors from Germany and abroad in the first three months. The most frequently used function on the page is the digital guide called the Recognition Finder, which helps individuals seeking recognition to complete the groundwork for submitting an application in a few steps. The high demand recorded by these preliminary sources of information reflects a positive side-effect of the Recognition Act: the media debate has inspired many people with foreign qualifications to consider for the first time or to reconsider the possibilities of having their qualification recognised, and to explore their career prospects in Germany.

To ensure that potential applicants for recognition receive rapid and accurate information, whether they live in Germany or abroad, the counselling offices and information services should be networked with each other effectively. Since the emphasis of each service can be slightly different, this is particularly important so that individuals seeking recognition can be referred, where necessary, to the right information and guidance provision for their situation.

First and foremost, however, all the available guidance and information sources should be publicised more vigorously. This would be beneficial not only for potential recognition applicants but also for the staff of the competent bodies as it would probably enable them to see a larger number of procedures through to a successful conclusion. ■

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Migrant-ready? The benefit of the Recognition Act for companies

▶ According to the 2011 labour-market report from the German Association of Chambers of Industry and Commerce (DIHK Arbeitsmarktreport 2011), the number of companies seeing a skills shortage as one of the greatest economic risks has doubled since 2010. To tackle this problem, companies are weighing up a variety of strategies including stepping up the recruitment of skilled migrants already resident in Germany as well as potential future immigrants. The questions pursued in this article are to what extent human resources management in companies is attuned to this group of employees, and how the new Recognition Act can help companies in the recruitment, employment and individual support of qualified skilled workers with biographies involving migration.

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Migrants as a new recruitment pool

It has been well known since the 2008 Labour Force Survey that out of over 3 million people living in Germany and holding foreign qualifications, only around 15 per cent have succeeded in obtaining formal recognition of their qualification (cf. Statistisches Bundesamt 2010, p. 297 ff.). This cannot be blamed on any imagined shortcomings of the foreign qualifications in relation to German qualifications, however; negative outcomes to recognition procedures were much more of a rarity than positive ones. Rather more pertinently, the distinct majority of qualification holders had never applied for recognition.

The idea that Germany's far higher-than-average rate of overqualification among migrants might be due to gaps in its recognition legislation was one rationale for the German government's Recognition Act. The entitlements for holders of foreign qualifications to apply for equivalency procedures were broadened substantially. Moreover, as from April 1, 2012 for the first time, it has been possible to submit applications to German recognition authorities from migrants' home countries. As a result of these two factors, an upsurge in the transfer of foreign qualifications into the German education and employment system could occur. The expected beneficiaries will not just be migrants themselves but also German companies, which are increasingly perceiving skill shortages due to demographic change. If the addition of foreign qualification holders enlarges the recruitment pool, German companies stand to gain. Recognition research over the past few years has shown that human resources managers are often unfamiliar with foreign qualifications and consequently overlook them in selection procedures. In some cases, recognition statements have been misunderstood or adjudged not to be meaningful enough (cf. Englmann/Müller-Wacker 2010, p. 91 ff.). A comprehensive new provision was therefore included in the Recognition Act concerning the issuing of statements: Section 7 of the "Professional Qualifications Assessment Act" (§ 7 *Berufsqualifikationsfeststellungsgesetz*, BQFG) stipulated the requirements for competence-oriented recognition statements. This means that evaluation looks at

more than the foreign certificate awarded at the end of education or training; the informally and non-formally acquired competences gained through professional practice or continuing education courses are also appraised, which enables the applicant's individual competence profile to be described.

The new provision on recognition statements was specifically tailored to the needs of companies. To investigate what information would meet their interests, the Federal Ministry of Economics and Technology (Bundesministerium für Wirtschaft und Technologie, BMWi) had commissioned the Institut für Entwicklungsplanung und Strukturforschung (IES) to carry out a company survey in 2010. Previously no empirical data was available on the use of recognition statements by German companies. Small and medium-sized companies were therefore asked to state what written forms of evidence enabled them to assess the competences of migrants in the application process or could enable them to do so in future. In this light, the reference to a theoretical situation somewhat limits the applicability and generalisability of the results (cf. information box). Nevertheless, they will be tested in reality since the "planned certification" was fundamental for the reform of recognition statements. Data on whether the new statements are recognised de facto by human resources managers can be collected in future on the basis of recruitment statistics.

Relevant information for the assessment of foreign qualifications from the viewpoint of companies

"Most frequently, more in-depth information on the training programme completed abroad is deemed important. For example, the duration and contents of training and the title of the qualification come into this category of information. 92.2 per cent of respondents consider this information important. For companies, as might be expected, the German education system and occupational profiles are the reference framework from which they take their orientation. They are familiar with the qualifications acquired here and the associated contents and tasks, and make reference to these in their hiring decisions. With this in mind, it is helpful for them to find out which German occupation the professional experience and/or qualification can be matched up to (89%). Also of great interest is information on the sphere of responsibility in which work experience and qualifications were gained (86.6%)" (IES 2010, p. 51, own trans.).

Out of approximately 5,000 companies contacted, just one-fifth took part in the survey. Among other suggestions, the authors of the study recommend extensive public relations work aimed at making SMEs better informed (IES 2010, p. 11), thereby highlighting a problem that will continue to require attention: most companies are not well-informed about the Recognition Act. As the Act's wording shows, the German government assumes that having qualifications recognised should result in more hiring. However, companies have been left to fulfil this expectation on their own. The Danish recognition law, which was one of the models for Germany's reform, offers companies an advantage: there, employers as well as migrants have the right to submit recognition applications, which turns companies into active advocates of their employees' interests.

How demographically aware is personnel planning in German companies?

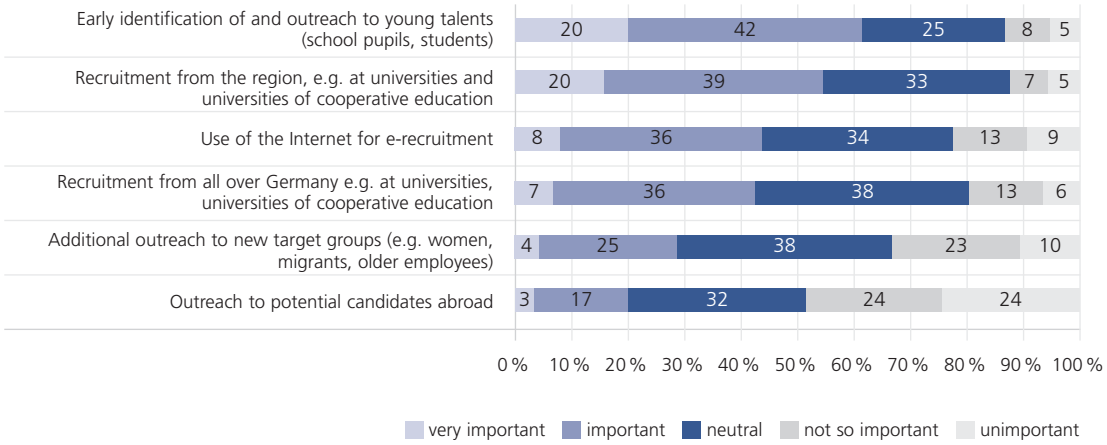
As yet there is no data for Germany recording whether migrants are employed in work matching their qualifications. In the context of the Recognition Act, what matters is how many holders of foreign qualifications are working in their own occupations – and, for correlation purposes, whether or not they are in possession of recognition statements. Equally, there are no statistics on which vocational qualifications from which countries are receiving recognition and being accepted by companies. In order to evaluate companies' recruitment of economically active persons with foreign qualifications, questions that need to be asked are:

- How many companies employ migrants in skilled jobs?
- Are there differences between small, medium-sized and large companies?

If the focus of research is whether human resources managers are developing strategies for successful use of the Recognition Act, both of those questions need to be answered. In the context of concern about skills shortages, various company surveys have been conducted since 2010, some parts of which also investigated personnel management in relation to migrants. In order to evaluate whether migrants can form a "new" pool of skilled labour, what matters is to obtain responses from human resources managers who can draw on relevant knowledge of recruitment and employment practices. This cannot be taken for granted in Germany. Migrants are underrepresented in the majority of companies, particularly once the discussion turns to the proportion of managers from a non-German background. In large companies they may account for 10 per cent of management personnel but not in SMEs, where the percentage is not even half that high (cf. Institut für Demoskopie Allensbach 2011).

Ernst & Young's "SME barometer" (Mittelstandsbarometer) is a regular survey of German small and medium-sized enterprises. In January 2011 the majority of the 3,000 respondents reported that the recruitment of skilled workers had become more difficult. To follow this up, Ernst & Young carried out an additional survey on the theme of recruitment. The results show that SMEs rely on traditional measures by concentrating on the young and regional talent pool (cf. Figure 1).

Figure 1
If you recruit externally, how important are the following measures to you?



* multiple responses possible
Source: Ernst & Young 2011 b, p. 22

Although the demographic forecasts are known, the growing scarcity of young and regional talents is not yet feeding through into human resources planning. The evaluation also reveals a dearth of good practice with regard to the so-called "new target groups": only 29 per cent of human resources managers are intent on making targeted approaches to women, older people and migrants, and only 20 per cent want to recruit abroad. These are by no means new groups of applicants but have been underrepresented for many years when it comes to employment. It is interesting in this context that companies are well aware of the absence of innovation in their personnel selection practices. 45 per cent of companies stated that a "lack of tolerance" towards migrants "caused or exacerbated" the skills shortage, and 65 per cent perceived a "lack of willingness" to employ older people in skilled roles (Ernst & Young 2011a, p. 19).

The findings make it clear that a longstanding pattern of structural discrimination against underrepresented groups calls for new measures. Without targeted programmes, individual companies can only meet this societal challenge with difficulty. In autumn 2011, more than 20,000 companies were surveyed by the DIHK on the theme of securing their skilled workforce needs. On that evidence, the skills shortage among doctors, nurses, childcare workers and engineers is generating a new interest in migrants that is not yet apparent in other branches. Companies and organisations with problems filling vacancies – for example in health and social services (28%) and in vehicle manufacturing (23%) – are looking to hire more foreign experts (DIHK 2011, p.3). Currently, however, the majority of branches – and small companies in particular – are not yet strategically recruiting migrants. Large and mid-sized enterprises can deploy their resources in a targeted way. They not only use more differentiated methods of personnel selection but also manage their human resources development. Moreover, in many cases they have built up experience in the field of international personnel management and could extend the relevant tools internally to all members of staff whose biographies involve migration.

International personnel management

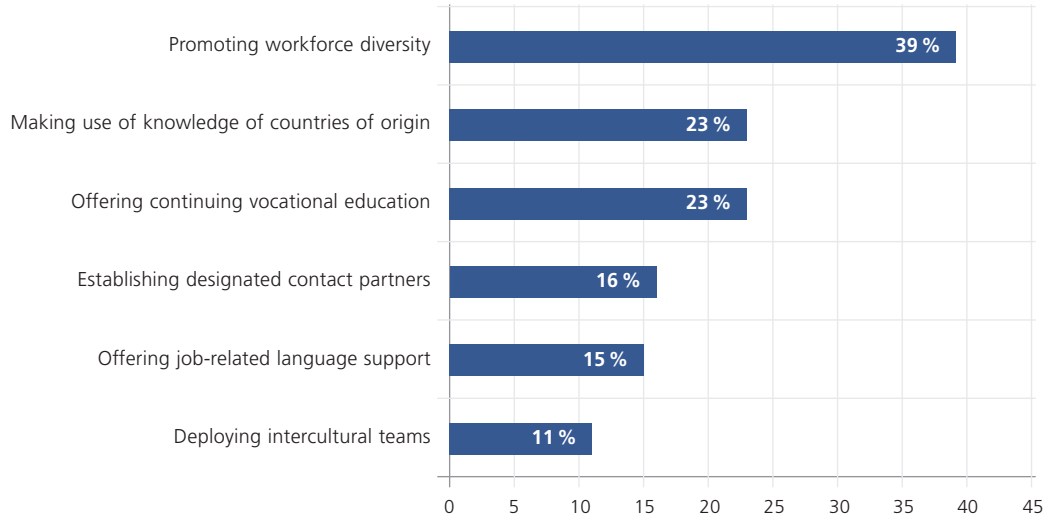
The German government plans to use the Recognition Act to make Germany more attractive for immigrants. Inspiration can be taken from the migration policies of successful immigration destinations like Australia and Canada, where side-by-side with the demands of business that immigrants must be employment-ready, companies are increasingly expected to make themselves migrant-ready. For good long-term employment outcomes, how well foreign skilled workers "integrate" is not the only relevant factor; management and staff bodies face challenges, too. German industry has experience in international personnel management, namely in the field of personnel selection for cooperative international teams or in the practical support of expatriates. The latter are members of staff who are carefully selected for a finite term of secondment abroad, where their internal knowledge will advance the company's business success. Since the adaptation requirements faced by expatriates in a foreign environment are understood to be complex, various instruments such as language courses and intercultural training are used to ensure that they succeed. Among other benefits provided are additional payments, support with orientation questions like finding an apartment and dealing with official-

dom, assisting spouses and partners with finding employment, help with contacts abroad and with readjusting after returning home (e.g. Festing et al. 2011).

The adaptation efforts of migrants who possess foreign qualifications are, in practice, comparable. They, too, face the challenge of transferring their specialist knowledge and competencies as effectively as possible into a foreign environment. The new entitlements to recognition procedures and the improved recognition statements are helpful in ensuring that German human resources managers recognise them as qualified skilled workers. The enabling conditions for successful employment outcomes could be improved even more if skilled migrants could access language courses, acclimatisation support and help with making contacts in the same way as expatriates. Although business-owners' associations increasingly proclaim a "welcoming culture", currently the necessary tools are only available to the minority. This is shown by data from the Chambers of Industry and Commerce "Company barometer" (IHK Unternehmensbarometer), which surveyed the "integration" of immigrants in companies in 2011. 1,500 companies participated. From the framing of the questions the participants can be presumed to have some experience of hiring expatriates or having migrants on the payroll. This is of key relevance in methodological terms, because statements about strategies are only reliable if they have actually been applied. In the evaluation, it emerges clearly that a divide exists (cf. Figure 2), on which a few supplementary remarks can be added. While 85 per cent of companies with more than 1,000 employees make use of at least one strategy, the figure tapers off as company-size decreases; but even among companies with fewer than ten employees, 18 per cent are making deliberate efforts to promote workforce diversity (DIHK 2012, p. 5). Another pointer for interpreting the results is that not all the responses consistently match the research question. The actual question was about "company strategies and instruments for the integration of employees with a migrant background". Three of the response variables do represent instruments of integration: individuals can be helped greatly by continuing education and the offer of language courses, and by having a designated contact partner within a trainee or mentoring programme. Fewer than one-quarter of companies are using these instruments, so this is an area with major development potential. Promoting the diversity of the workforce, on the other hand, which is mentioned by 39 per cent of respondents, is only an abstract means of integrating new members of staff. Just like "making use of knowledge about countries of origin" and "deploying intercultural teams", these strategies are relevant to business efficiency and are aimed at accessing new sales markets or client groups and ensuring that decision-making is innovative. Companies that are migrant-ready distinguish between these strategic aspects.

The DIHK also asked for any useful political suggestions on the matter of migration. Simplifying recognition practice

Figure 2
Company strategies and instruments for the integration of employees with migrant backgrounds*



* multiple responses possible
Source: DIHK 2012, p. 5

was the second most frequent response by companies, directly behind easing the immigration regulations. For a proportion of German companies, the recruitment of migrants is a reality, and they are aware of the hurdles of recognition legislation.

How the Recognition Act allows for internal human resources development

In the sphere of human resources development, which will expand in response to the shrinkage of the skilled labour pool in the coming years, the Recognition Act offers new opportunities. Now that professional practice or continuing education qualifications will be relevant to equivalency assessments in future, recognition applications can be resumed or resubmitted when competencies have been developed with regard to German occupational standards. So far, little discussion has been devoted to this aspect of the Act, which relates to qualifications initially assessed as not fully equivalent. Essentially there is an opportunity to use methods of human resources development so that holders of foreign qualifications can correct the shortcomings specified in the statement by following a personalised programme of competence development within the company. As soon as an equivalent competence profile has been achieved by means of on-the-job training, and confirmed by the employer, skilled status in Germany can be obtained by means of the recognition procedure once again. SMEs in particular could benefit from an effect of this new provision. Although few small companies have the resources to use additional methods to enhance their strategic personnel selection, they do have experience in human resources development within the company, and are well versed in both individualised employee support and training on the job.

Consequences for ongoing implementation of the recognition legislation

The goals of the Recognition Act are only achievable in practice when all relevant stakeholders are involved. The administrative act of assessing equivalence is a first step in the recognition process. If companies will reassess their traditional forms of personnel management, the Recognition Act offers new opportunities for personnel selection, staff retention and employer branding.

So far, no programmes exist in Germany which encourage companies to improve their human resources management with specific reference to migration. These can be created in the course of implementing the recognition laws of the German federal government and the German Länder, if political players and industry associations cooperate. Unfortunately, the German government's Recognition Act has not created a uniform mechanism for all qualifications: the diverse sectoral legal provisions are a continuing impediment to transparency for companies. It remains to be seen whether the new recognition laws are capable of supporting the reorientation of personnel strategies in practice. ■

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The International Standard Classification of Education (ISCED)

▶ **The original purpose of the International Standard Classification of Education (ISCED) was solely to facilitate standardised international comparisons of statistics across education systems. Over the course of decades it proved so useful that, more recently, it has also been invested with an evaluative function and treated as a reference standard which informs the development of new qualifications, qualification frameworks or entire education systems. Nevertheless, it only gives a limited reflection of the reality within education systems and the diversity of existing qualifications, and even the new version of ISCED approved at the end of 2011 in no way alters that fact. The aim of the article is therefore to understand the underlying basis of the ISCED classification and the comparative scales and values that may be used to map a qualification to a level. Ambiguities mainly arise at the point where a qualification's valence, in the sense of rigour and complexity of content, justifies the mapping of a qualification to a particular level.**

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Purpose and logic of classification schemata

UNESCO's International Standard Classification of Education (ISCED) plays a key role in the classification of vocational and general educational qualifications: it primarily serves as the basis for international statistics on education systems and qualifications, such as those found in the annual OECD publication "Education at a Glance". Furthermore, it is the foundation of numerous occupational classifications such as the International Standard Classification of Occupations (ISCO) or the German classification of occupations (Klassifikation der Berufe – KldB), used by the Federal Employment Agency (Bundesagentur für Arbeit – BA) and has even been the starting point for the development of numerous qualification frameworks; for example, the development of the European Qualifications Framework (EQF) was at least partly motivated by the desire to create an alternative system to ISCED which was better able to reflect qualifications and learning outcomes (cf. Coles/Oates 2006).

The classification of (occupational) qualifications is based on a relationship that seems simple at first glance: a classification scheme makes a clear statement about the criteria for assigning an occupational qualification, position or job to a particular level. These criteria are called "descriptors" and can be framed in the form of curricular-content criteria, personnel and financial resources or institutional and time parameters. The decisive factor is the mapping process, which is carried out by the involved actors from policy, practice and academic research. Integral to this process is a certain conception of the value of learning processes and qualifications. Thus, on closer examination, the "valence" of qualifications is based on a socially negotiated process of imputation which can take account of quite a number of factors:

- the degree of abstraction of learning processes and contents,
- the duration of a formal, institutionalised educational programme,

- the (monetary and non-monetary) benefit and/or the prestige of a qualification or an education provider,
- usability of the qualification for access to the labour market or more advanced educational programmes,
- the status of a qualification in a different education system, or relative to another qualification in the same education system,
- the subjective status, i.e. personal evaluation of qualifications, certificates and learning outcomes.

Once a qualification has been placed at a particular level, its valence becomes established as time passes, and the higher the level at which it was positioned in the classification scheme, the more highly the qualification, position or job is valued.

Development and structure of ISCED

The origins of systematic comparative educational reporting can be traced back to 1867 when the US National Center for Education Statistics began to collect annual data on the quality of school systems in each state of the USA. One of the core problems from the outset was the comparability of terminologies and structures. In 1933, an early pioneer of comparative education research named Nicholas Hans therefore proposed developing an "artificial terminology" that should be implemented by all the states for comparative purposes (cf. Hans 1933, p. IXXXVIII). In the years that followed, this idea was taken up repeatedly by institutions like the International Labour Bureau (the forerunner of the International Labour Office), but it was not until the founding of UNESCO in 1946 that an internationally recognised institution was mandated to develop a specific set of terminology and statistics for the worldwide domains of education, science and culture. Consequently the first version of a common terminology came into being in 1954. It provided specifications both for groups of persons (e.g. students, teachers, classes) and for educational levels (cf. UNESCO 1954; in detail: Smyth 2008). Further to this development, the first drafts in preparation for ISCED were produced in 1958 when UNESCO presented a conceptual framework for describing four core areas of education (institutions, educational finance, illiteracy, and the educational attainment of the population). Then in 1976, the first version of today's ISCED was produced; it was superseded by the 1997 version, which in turn would become one of the fundamental components of the other classification schemes mentioned above (ISCO, KldB, EQF etc.). On 10 November 2011 UNESCO's General Conference passed the latest revision of ISCED, which had become necessary due to the massive changes in the tertiary sector and in early childhood education in numerous countries worldwide.

Structural principles

ISCED is based on the mapping of educational programmes to various levels. Educational programmes are understood as a sequence of, for the most part, structured learning activities organised to accomplish a more or less clearly defined objective. In most cases the educational programmes are offered by recognised educational institutions and culminate in a certified qualification. In this way ISCED encompasses not only formal learning but also non-formal and informal learning, provided that this is recognised for the purposes of a formal qualification. In contrast, ISCED makes no provision for learning that does not lead to a recognised qualification, or for non-accredited qualifications. ISCED classifies educational programmes in terms of levels and fields of education. The system is subdivided into nine fields of education (cf. box).

In contrast to the fields of education the levels refer to the complexity of content. UNESCO defines this complexity of content as "the overall knowledge, skills and capabilities required of participants if they are to have a reasonable expectation of successfully completing the programmes in these categories" (UNESCO 2006, p. 15).

ISCED fields of education:

- general programmes,
- education (e.g. teacher training, education research),
- humanities and arts (e.g. languages, history),
- social sciences, business and law (e.g. sociology, journalism),
- science (e.g. biology, physics),
- engineering, manufacturing and construction (e.g. telecommunications, architecture),
- agriculture (e.g. farm management, veterinary medicine),
- health and welfare (e.g. medicine, childcare),
- services (e.g. tourism, logistics).

Source: UNESCO 2006, pp. 41 ff.

The 2011 revision of ISCED

Whereas the ISCED 1997 scale has seven levels, ISCED 2011 has nine.[1] The table (p. 25) shows the two classification instruments side by side, along with the mapping of German educational programmes to levels for ISCED 1997; the German mappings for ISCED 2011 are not yet available. ISCED 2011 has a number of innovations, principally concerning early childhood education and university education:

1 *Both versions also contain an extra level for qualifications that cannot be assigned to any other level. No further mention will be made here of this eighth or tenth level.*

Level 0 (early childhood education) renamed and extended: In addition to formal early childhood education for children from age three up to regular primary school enrolment age, this level now encompasses early childhood education for children up to age three.

Differentiation created between educational programme and attainment: In previous versions the assignment of educational levels was oriented to educational programmes only, which meant that the compilation of the statistics was of little help for reporting on programme attendance and completion. Following the introduction of an additional subcategory, extra data can now be obtained about programme completion; that is to say, a differentiation has been introduced between educational programmes (ISCED-P) and attainment (ISCED-A).

Orientation of an educational programme: Previously the classification made reference to three further criteria, i.e. general education, pre-vocational or pre-technical education, and vocational or technical education. This element has now been reduced in wording and content to two dimensions, i.e. general and vocational.

Diversification of levels in the tertiary sector: The introduction of new study structures has led to a differentiation between short-cycle, Bachelor's, Master's and doctoral degree programmes. Hence the scheme now differentiates between four instead of two levels in the higher education sector. The new classification will be implemented in 2013 at the earliest in order to give the countries sufficient time for the mapping of their national qualifications. In the medium term, a revision of the nine fields of education is envisaged; these will be further diversified so that better statements can be made on the supply and demand of qualifications.

Table **ISCED levels 2011 and 1997**

ISCED 2011		ISCED 1997		Extract from the mapping of German educational programmes (ISCED 1997 only)
0	Early childhood education	0	Preprimary	• Kindergarten, Vorklasse, Schulkindergarten (forms of pre-school)
1	Primary	1	Primary	• Grundschule (primary school)
2	Lower secundary	2	Lower secundary	• Hauptschule (lower secondary school), Realschule (intermediate secondary school), Gymnasium (grammar school), Integrierte Gesamtschule (integrated comprehensive), Abendschule (night school), Berufsaufbauschule (vocational extension school), BVJ (prevocational training)
3	Upper secondary	3	Upper secondary	• 3A: Allgemeinbildender Sekundarbereich II (secondary level II of general education) (e.g. gymnasiale Oberstufe (grammar school senior grades), Fachoberschule (specialised vocational upper secondary school), Fachgymnasium (technical upper secondary school) • 3B: beruflicher Sekundarbereich II (secondary level II of vocational education (e.g. Berufsfachschulen (full-time vocational schools), duales System (dual system)), BGJ (basic vocational training) • 3C: Beamtenausbildung (mittlerer Dienst) (intermediate grade civil servant training)
4	Post secondary non-tertiary	4	Post secondary non-tertiary	• 4A: Fachoberschulen (Klasse 13) (specialised upper secondary schools, 13th grade), Berufs-/Technische Oberschule (vocational/technical upper secondary school), Berufsfachschulen (full-time vocational schools) which award final vocational qualifications (second-tier training combined with higher education entrance qualification), duales System dual system (second-tier vocational training combined with higher education entrance qualification), Abendschulen (Sekundarbereich II) (night schools, secondary level II) • 4B: duales System (Zweitausbildung) dual system, second-tier vocational training
5 6 7	Short cycle tertiary Bachelor or equivalent Master or equivalent	5	First stage of tertiary	• 5A: Universität, Kunst-/Musik-/Fachhochschule (university, art school, music school, university of applied sciences) • 5B: Fachakademie (specialised academy), Verwaltungsfachhochschule (college of public administration), Fachschule (advanced technical school), Schulen des Gesundheitswesens (health sector vocational schools)
8	Doctoral or equivalent	6	Second stage of tertiary	• Promotion, Habilitation (doctoral degree, post-doctoral professorial qualification)

Source: UNESCO (2006; 2011)

Strengths and weaknesses of ISCED

Under the basic assumption that learning processes and their outcomes can be represented hierarchically, the central criterion for the mapping of a qualification to one of the levels listed above is the complexity of its content: "These categories represent broad steps of educational progression, in terms of the complexity of educational content. The more advanced the programme, the higher the level of education" (UNESCO 2011, p. 10). Yet on further investigation of how exactly the complexity of the programme is to be captured, all that is found is the following statement: "However, curricula are too diverse, multi-faceted and complex to directly assess and compare the content of programmes across education systems in a consistent way. Due to the absence of direct measures to classify educational content, ISCED employs proxy criteria that help to classify a given educational programme to the appropriate ISCED level" (UNESCO 2011, p. 10). For their part, though, the proxy criteria[2] specified here do not refer to complexity of content but are oriented solely to two criteria, namely a) whether a level has been completed successfully and b) whether it leads to a higher-level educational programme. In the tertiary sector, where criterion b) does not apply, the total duration of the programme is used in its place.

2 Proxy criteria can be understood as indirect criteria, but refer in this case to categories that are subordinate to the individual levels so that these can be defined more precisely.

The very abstract expression of the complexity of an educational programme or a qualification is found in all three versions of ISCED (1976, 1997 and 2011). The fact that UNESCO intentionally leaves this aspect very vague is both the greatest strength of ISCED and its greatest weakness: at this point it calls to mind the central aim of ISCED, which is to be a classification instrument for statistical purposes and for international comparisons. In this way, the responsibility and the freedom to define complexity of content are handed over to the individual countries. So its strength is that it states a very broad and abstract conception of education and only fixes the formal criteria that facilitate any kind of statistical comparisons between countries. Moreover, it is the only classification system that supplies regular, worldwide and publicly available data on education systems of such breadth, detail and acceptance that no other instrument is likely to match it in the foreseeable future.

Meanwhile, its weakness is that unless the national traditions, functions and structures of a given education system are also taken into consideration, statements on the concrete level of attainment and the actual competences of individuals are as close to impossible as a meaningful comparison of the data generated with the help of ISCED.

So on closer consideration, ISCED demonstrably does not assign either a value or a particular level to formal qualifications; in fact, this mapping takes place within a social negotiation process and is an estimation arrived at within the countries themselves and between countries and international actors. This explains why, for example, ISCED 1997 classifies Germany's two- or three-year educational programmes in health and social care occupations (at full-time vocational schools or health sector vocational schools) as belonging to the tertiary sector (level 5B), when according to the logic of the German education system the higher education sector is precisely where they do not belong. Another example of problems in the interpretation of ISCED-based statistics is the controversy currently being debated in Germany over the country's low graduate ratio by international comparison: critics of ISCED complain that the ratio only looks low because the dual system of initial vocational education and training, despite its very high standards of content, is located outside the tertiary sector (and thus – by the logic of the German system – assigned to an unduly low level); meanwhile ISCED's defenders claim that take-up of tertiary education is simply not high enough in Germany, and that the dual system cannot belong to the tertiary sector because it does not normally issue any higher education entrance qualification or impart any content of comparable complexity to the higher education sector.

Both examples make it clear that the mapping of national qualifications and the arguments from institutional versus content-based perspectives are the critical points in the application of ISCED. In other words, if no distinction is made between ISCED's intention and structure, on the one hand, and between its application and interpretation, on the other, there is a danger that ISCED and the data generated with it could be misinterpreted or misused for political (education policy) purposes. It is also evident that of the valence criteria mentioned above, the critical ones are the duration of institutionalised educational programmes, the prestige and influence of educational institutions (in relation to the mapping of educational programmes) and the usability of a qualification for accessing higher-level programmes, whereas valence aspects like monetary returns, labour-market usability or subjective status do not play any (direct) role. Therefore the main weakness of ISCED is that it cannot be used meaningfully without precise knowledge of its structure and the national context.

It follows that ISCED should only be an orientation aid in the mapping of qualifications; it cannot solve the core problems of capturing complexity of content and individual competences. For that reason, it should not be overvalued in the evaluation of (vocational) qualifications: "ISCED 2011 is not designed to directly assess the competencies of individuals because there is no direct relationship between educational programmes or qualifications and actual educational achievement. The educational programmes that an individual has participated in or has successfully completed are, at best, only an approximation of the skills, knowledge and competencies mastered at the time of completion" (UNESCO 2011, p. 5). ■

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New forms of learning for vocational education: mobile learning – social learning – game-based learning

▶ The Internet has become a staple element of information and communication infrastructures throughout society and culture, including the workplace. Low-cost, high-performance mobile devices coupled with the universal Internet accessibility and simple applications (apps) have brought about marked changes in our information and communication habits. In response to these changes, new forms of learning have emerged in step with these developing technologies. This article introduces several of these new forms of learning – mobile learning, social learning and game-based learning – and reflects on their potential for vocational learning.

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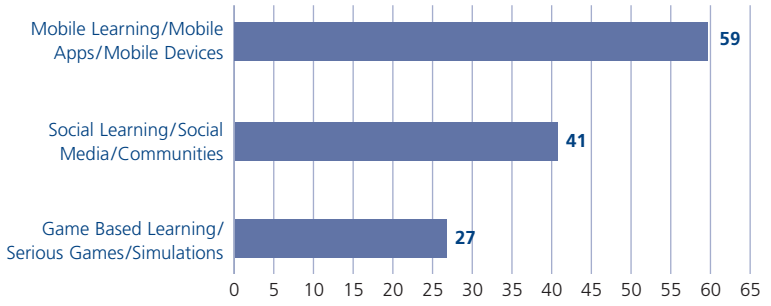
New forms of learning via new technologies

Job-related continuing education and life-long learning increasingly require employees to take the initiative and learn more independently. To complement this development, forms of learning are emerging which can be used flexibly and which facilitate any-time, any-place interaction and communication. Leading market research and consultancy firms see great development and growth potential, particularly in mobile and cooperative learning, over the next few years. Key examples of the new learning trends of relevance to initial and continuing vocational education and training (IVET and CVET) are mobile learning, social learning and game-based learning. According to an online survey conducted as part of the 2011 MMB study, a survey of 76 experts from Germany, Austria and Switzerland, these forms of learning will gain much more ground in company-based IVET and CVET in the foreseeable future (cf. Figure). These trends are not only the most significant, but account for the highest growth as well as the strongest demand.

Learning is a complex process that means acquiring new behaviours, knowledge and skills in order to master situations in everyday life and indeed work-based situations. The use of digital technologies is changing the mode by which some of this learning is acquired, and it is the task of (media) didactics to harness the advantages of the new learning technologies for educational use. Mobile learning, social learning and game-based learning are not completely new forms of learning as such. Books or study materials have long been taken on journeys and used for learning on the move. Social learning as an educational principle has a long tradition for personality development, particularly in schools. Social learning is closely associated with the principle of community (cf. Dewey 1916) and aims to develop interaction and communication skills as well as cooperation and conflict-management skills.

These forms of learning continue to advance in step with the new technologies, however, and are becoming increa-

Figure **The three most important learning trends for the future**



In your view, which three e-learning trends will be of greatest importance in the immediate future? n=64 experts / responses as % of experts who mentioned this trend without prompting/multiple answers possible

Source: MMB-Trendmonitor II/2011, p. 4

singly widespread both in formal and informal contexts. In the following, these three learning trends, which are increasingly relevant for vocational education and training (VET), are considered with a view to finding out:

- which existing learning methods they relate to,
- what potential and added value they offer to foster and support learning processes, and
- what limitations are apparent for work-related learning.

Mobile learning

Alongside blended learning, mobile learning is becoming one of the fundamental pillars of digital learning in German companies (cf. MMB-Trendmonitor II/2011). Mobile devices like mobile phones, smartphones, tablet PCs or hybrid netbook tablets (with touch screens) are always ready for use and are conveniently lightweight with relatively long battery discharge times. In common with e-learning, mobile learning supports learning processes through information and communication technologies (ICT), and by virtue of the extended context provided by mobility it can be understood as a specialisation of e-learning, even if the end devices have different technical features from static, cabled PCs. Their independence from power sources and their permanent network connections make the devices immediately available when needed in the situative context or within the learning process.

Mobile devices serve as an "information source" (e.g. navigation, access to knowledge databanks), as a communication medium (e.g. collaborative exchange with other learners) and as a cognitive tool (production and exchange of notes, photos, videos or mind maps, etc.)" (Döring 2005, p. 325, own trans.) e.g. on real-world excursions or within work processes. Mobile learning processes are defined by Frohberg (2008, p. 5, own trans.) as "pedagogically motivated, sustained practices (learning, teaching, learning support and learning logistics)…, when mobile computer technology is used to a substantial extent in mobile contexts and this clearly adds value or at least causes a significant change in behaviour."

Action-based and on-the-job learning approaches have become established in vocational training practice, which have potential for use in mobile learning scenarios:

- **Situated learning** addresses the complexity of social reality as opposed to abstract content, and supports the learners' authentic activities for the management of problem situations. Having the learning content contextualised in realistic situations establishes relevance to the learners' everyday experience and to applying the content.

- **Problem-based learning** is a learning concept that confronts learners with authentic or comparable problems from their workplace or occupational reality – much like situated learning – but is a more cooperative form of learning which also incorporates reflection on the learning process and learning outcomes.

- **Task-oriented learning** is based on working through task-specific learning content. The selection and structuring of learning content is oriented to the requirements of tasks that the learners have to solve in their day-to-day work. Real work orders are converted into systematically prepared task assignments for the learners to work through.

- **Informal learning** describes all learning processes that take place outside of formalised education programmes and not organised and supported by public or company-run education and training institutions. The purpose of learning is to solve a specific situational requirement or a problem which requires an immediate or urgent solution.

The particular characteristics of the devices and their flexibility with regard to the mobile usage context result in

- steadily growing integration of mobile devices into the (workplace) routine;
- situative and contextualised learning;
- informal learning processes for people who cannot participate in formal education processes due to lack of time;
- micro-learning, i.e. learning in small structured, audio-visual or text-based learning units that can be worked through in periods of "downtime" (e.g. while waiting).

Social learning and social media

Social learning is also a tried-and-tested form of learning in the pedagogical sense. It implicitly depends on the emergence of (learning) communities and on working within these. In relation to new technologies, social learning means learning in social structures and networks via the Internet. The online components are complementary to traditional off-line learning. Social media are based on Web 2.0 technologies and are comprised of social networks on online platforms. Examples of these social networks are the business community platform Xing, LinkedIn, Foursquare and, currently the largest social network, Facebook, while the video platform YouTube also belongs in this category. Users establish personal profiles on these social networks, make contact with others, form interest groups and share ideas and opinions. They also create media content of all kinds, known as "user-generated content" and post this on the Internet which makes it accessible worldwide. The most characteristic features of social media are participation and collaboration.

Among the most popular social media technologies are "WikiWebs", which can be used both on the publicly accessible Internet and inside companies' own intranets. They facilitate the simple production, publication, review and linking of texts, photos, artwork, videos and other multimedia contents by employees. Their purpose is to support the collaborative development and editing of content. This virtual participation in community knowledge is broadened by functions of other social media like "(micro-)blogging", "social tagging", and adding comments, ratings and recommendations.

Micro-blogs are characterised by short, SMS-like messages and a rapid, spontaneous exchange of ideas; Twitter is the most widespread micro-blogging service. In the learning context, micro-blogging enables informal and instant exchange between participants in the learning process. Particularly in IVET within the dual system, which involves a separate workplace and learning venue, the limitations of the classroom can disappear; the trainees can connect with each other via Twitter to solve a particular technical problem and enhance what they are taught with authentic content. Micro-blogging can stimulate discussions and informal information-sharing, but it can also be used for feedback and establishing social networks. "Enterprise micro-blogging" facilitates the informal use of a micro-blog in the corporate context. It is suitable for geographically separated teams or employees in dispersed locations, and supports collaboration and the transparency of work procedures. Social tagging enables the learners themselves to annotate (learning) resources with freely chosen keywords (tags). It acts as an aid to reflection, recall and structuring, for purposes of orientation and exploration, communication and the exchange of knowledge (cf. Lohmann 2010). This gives rise to versatile inter-linkages of learning resources, rendering learning activities collectively usable that were previously more isolated.

Game-based learning

With game-based learning or serious games, the social element is once again an important factor. This form is a combination of e-learning and computer gaming. Whereas "serious games" refers to the games as such, "game-based learning" refers to the associated learning processes in users (cf. Ganguin 2010). Apart from the classic design elements of games such as the game idea or story, the game rules, elements of suspense and challenge, and the setting for the action, additional characteristics of serious games are the digital medium and a didactic concept.

These are underpinned by considerations of how learning can be associated with positive feelings. By merging the previously separate spheres of play, learning and work, the aim is to make informal learning processes easier. Playing games together satisfies social needs for interaction that may be based on the desire for competition, companionship or recognition (cf. Bonfadelli 2004).

The ability of the individual players to cooperate is vital to success in many computer games. In a large number of online games, particularly multi-player games, social cooperation and mutual assistance are made necessary by design. Social competences that are becoming increasingly important in the world of work are fostered; e.g. competences with a bearing on teamwork, conflict management or cooperation, or having to take charge of certain special functions. Moreover there are certain leadership qualities which can be read as social competences, such as assertiveness, flexibility or taking responsibility (cf. de Witt/Ganguin 2011). Kerres/Bormann/Vervenne (2009) see good learning outcomes when the game is embedded in a didactically adapted learning situation and when learning tasks are integrated into the game. In complex game worlds, the players must apply rules, on the one hand, and on the other hand generate new knowledge in certain situations. The authors emphasise that in digital games, the learning that takes place is predominantly implicit, and the trained behavioural repertoire is carried out repetitively. Explicit learning becomes necessary soon as the person gets stuck and has to find out how to solve new problems (ibid.).

The Internet portal qualiboxx provides a series of learning games to foster generic competences for the workplace as well as job-specific occupational competences.

Table **Overview of the three forms of learning**

	Mobile learning	Social learning and social media	Game-based learning
Characteristics	Any-time, any-place learning; ubiquitous access to information; social networks and digital tools; personalised learning environments	Participation; collaboration; user-generated content	Combination of learning and play
Didactic potentials	Extending the places and times of learning; situated learning; contextualised learning; informal learning; micro-learning	Learning in social networks and communities; informal learning; collaborative learning	Social and emotional learning; situated learning; exploratory learning
Potentials for VET	Linking learning venues and workplaces; improving cooperation between learning venues	Active co-authoring; collaboration between employees in dispersed locations; transparency of work procedures	Fostering social skills and occupational competences
Limitations	Imparting and acquiring complex learning processes without integration into broader learning contexts	Traditional corporate cultures	Acceptance of games as a learning element
Applications	Location-based services; augmented reality; QR codes; micro-blogging/social networking; GEO-tagging; RFID/NFC	Micro-blogging; social networking; social tagging; wikis	Online/off-line educational computer games; serious games
Technologies	Smart phones; Tablet PCs; e-book readers; mobile media players	Community platforms; micro-blogging tools	PCs; Internet-based learning platforms

Even if game-based learning is enjoying increasingly positive acceptance as a form of learning in the IVET and CVET sectors, as the above-mentioned examples show, there are also critical aspects to weigh up concerning the instrumentalisation of computer games for vocational education. Despite new technologies there is no avoiding the contradiction between play and work or training. It also emerges that gamers associate gaming with relaxation from the stress of work, and are not necessarily keen on seeing their game instrumentalised for work-related purposes.

Opportunities and limits of new forms of learning

It is becoming easier and easier to access knowledge and information on the Internet. New mobile phone standards like LTE (Long-Term Evolution) will bring significantly higher download rates. "Ubiquitous learning" will replace learning tied to one location. Irrespective of that, all learning resources, personal notes and social contacts will be available to the learners at all times. Social and game-based learning will increasingly come with dedicated apps for mobile devices, allowing employees to synchronise their various learning apps via their personal smart phones.

The significance of informal learning and the need for cooperation and collaboration in companies and workplaces are increasing by the day. Didactically tailored forms of learning are therefore called for in the VET sector to prepare learners for these requirements. Mobile learning and social learning, in particular, facilitate learning within the work process and cooperative interaction between learners who are often dispersed across locations. Micro-learning, small multimedia learning units, combined with micro-blogging will play a part in influencing the instructional design and continuing development of job-related learning. However, learning-on-the-fly situations are not best suited to internalising knowledge for the long-term and committing it to memory. In many cases the distractions during train journeys or waiting times are too great, and the information accessed cannot be processed into meaningful knowledge. ■

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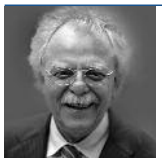
On the myth of the Digital Natives and the Net Generation

▶ **Analyses of the frequency and type of media use in persons up to 30 years of age prove that the so-called Digital Natives do not exist. Their media use is a leisure pursuit only, and is not being transferred to learning; it principally serves the purpose of communication with peers, the most important part in the socialisation of young adults. Against this background, the article sheds light on the nature and function of media use in young adults and argues that the learners' individual motives and dispositions most decisively influence the use of new media in learning contexts.**



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The myth of a media-omnipotent "Net Generation"

The post-1980 generation has come to be known by various sobriquets: Tapscott (1997) coined the phrase Net Generation, while Howe and Strauss (2000) called them Millennials.
The best-known epithet was invented by Prensky (2001), who referred to young people as Digital Natives. Ever since, it has widely been asserted that those born after 1980 are Digital Natives because they have grown up with the new media and therefore possess certain distinctive traits – visual orientation, multi-tasking, active learning, tolerance towards minorities – and are team-oriented, inductive learners, who can switch their attention rapidly and give quick responses. Prensky casts them as native speakers of the digital language, who even have different kind of brains following the catalyst of the new media "singularity" (or digital Big Bang),, and who differentiate between "legacy" (old) and "future" (new digital) knowledge (cf. Schulmeister 2009a). The term Digital Natives is usually trivialised in the press and media. For instance, the headline for the 30th anniversary of the Commodore computer read: "The C64 turned an entire generation into 'Digital Natives'" (Welt Kompakt 10.01.2012, p. 26, own trans.).

In the same way, the "Net Generation" is just a metaphor. Ulrike Jureit (2006) voiced the criticism that the term generation was "now so popular that it risks degenerating into an empty cliché. In the mass media the 'generation' label is a tremendous seller, albeit without any quality standards" (p. 19, own trans.). The age-cohort in question lacks any of the features that would define a generation: homogeneity, identity, self-thematisation, commonly rooted experience, historical reference events or a collective attitude to life. The Internet as a common source is not a sufficient basis for describing a generation. The term Digital Natives implicitly suggests that the technology is the cause of this behaviour, rather than the psyche of young people who have discovered an agreeable form of self-motivated activity in these media. But youth and media researchers are critical of the technological determinism

of such an assertion (Buckingham 2008; Jenkins 2006). Unifying experiences or collectively endured historical upheavals are not identifiable in the case of today's 25- to 30-year-olds, and any self-identification with Digital Natives applies only to a tiny minority and may stem from a "distorted self-interpretation and world perception" (Jureit 2006, p. 131, own trans.).

Media usage data refute the Digital Natives theory

Do people born post-1980 really behave in the way that Digital Natives are supposed to? In superficial terms, some aspects seem to support this proposition. For instance, the Kaiser Family Foundation (2010) reports on a massive rise in media use in children between the ages of eight and eighteen years old: young people in the USA spend 7.38 hours per day using media, or even more (10.45) if the proportion of media in simultaneous use is counted. Similarly, the online studies carried out for Germany's two public broadcasters (ARD/ZDF-Online Studien) by the media research network Medienpädagogischer Forschungsverbund Südwest (MPFS) have registered a rise in digital-media use to the same level as television consumption over the last 10 years. The millions of people piling into Facebook seem to support a similar conclusion. It is therefore necessary to look beneath the surface of these high numbers:

First, studies that collect data on media use along with other leisure activities record that non-media-based activities, like outings with friends and parents and playing outdoors, rank highly (cf. MPFS 1998–2009; MPFS 1999–2008). In reality, what matters to young people are not their media but their peers and families. Their free-time activities encompass far more than television, gaming and the Internet: sports, playing music, animals, clubs and church are all significant.

Second, in terms of media use, television is often ranked ahead of other media. In the Kaiser Family Foundation study, television accounts for 4.29 hours and computer use 1.29 hours per day, in the ensemble of media activities, MP3 challenges the position of the computer (2.39 hours).

Third, it is necessary to differentiate computer and Internet use by its various functions. If the activities are analysed according to the different functions, a clear dominance emerges for everything that enables communication: email, instant messaging and postings in social communities. "Almost half of the daily time spent on the Internet is attributed to communication (…). In teenagers, interaction via the various channels takes up 58 per cent of usage time" (Busemann/Gscheidle 2010). Communication is extremely important for young adults. Today the SMS is replacing the landline phone call. The search for role models is another important factor: the teenage magazines of yesteryear are being replaced by websites about sports idols, film stars or animals (Theunert 2011, p. 71).

Anyone who expected Web 2.0 to mean a quantitative jump in user participation was initially proved right by the rising user numbers on Wikipedia and weblogs. But in the year 2010 the ARD/ZDF online study (Busemann/Gscheidle 2010) found that although passive Web 2.0 use was still on the rise, the rate of growth was already beginning to fall, and active use of Web 2.0 has already shrunk by 50 per cent. The predominant use of wikis and weblogs is receptive; very few people use them productively. Interest in photo communities, bookmarking, weblogs and Twitter is diminishing: "the picture is crystallising of a two-class society in user-generated content applications" (p. 361, own trans.). This observation is backed by the most recent study from Pew Internet & American Life (Lenhart et al. 2010): the blogging rate among teenagers in the USA fell from 28 to 14 per cent between 2006 and 2009. Likewise, commenting on blogs decreased from 76 to 52 per cent. The mobile phone seems to be triumphing over all

other media. This again confirms that communication with peers is the most important socialisation factor for young people. Twitter plays very little part in it (5%). The 14th ARD/ZDF study also confirms "rather modest Twitter usage" (Busemann/Gscheidle 2010). If these findings are considered from the viewpoint of socialisation, it becomes evident that young people select those items from the media mix which best meet their needs as young people. Communication with their peers dominates their life, and entertainment their leisure time. Content plays a more minor role.

Digital literacy

Digital literacy covers a range of issues from information competence through communication competence to media competence. In no way does the term imply that longstanding skills in the context of analogue media have become obsolete. Quite the opposite: reading skills and attentive listening, critical appraisal of information and advertising in newspapers, radio and television self-evidently still belong to the field known in the English-speaking research community as literacy (cf. Media Literacy Expert Group 2007). Whereas the main aim of information competence is to "recognise the need for information, search for it systematically, select it critically and re-use it effectively" (cf. Heinze/Fink/Wolf 2009, p. 7, own trans.), media competence is defined less in terms of hardware and software use and access to resources, and more by the ability to understand contents and communication processes in the media and to contribute to them creatively (cf. OFCOM 2006a/b).

Young people's media competences: are they "digital" learners?

All this has nothing to do with the media-omnipotence that Digital Natives are presumed to possess. Analyses of digital literacy (cf. box) have shown that such abilities have not developed in students in the way that schools and universities necessarily expect (cf. Paechter et al. 2007; Heinze/Fink/Wolf 2009; OFCOM 2006a/b; Livingstone/Bober/Helsper 2005). These skills do not simply materialise incidentally as a result of web-surfing. No transfer is taking place from leisure media use to learning; other studies back this up (cf. Kvavik/Caruso 2005).

Understanding in the sense of digital literacy means culturally interpreting and critically evaluating information and communication in media, with the aim of participating in societal processes and digitally mediated social and political actions in different contexts. Since digital media are especially prone to the manipulation of information, misuse of data, viral marketing and profiling on the basis of individual data footprints, and because they may invoke emotional distress and social brutality, the passion for new ideas definitely needs to be complemented by active engagement and rational evaluation. The greatest deficits that we find, however, are in active participation and creative content generation (cf. Lenhart et al. 2010; Busemann/Gscheidle 2010).

Psychological aspects must not be ignored either: many users get lost in the surfeit of information and offers, never-ending communication processes and the attraction of numerous contacts. Since users could so easily be led astray, media competence is about more than being able to master the medium, and – as Sherry Turkle (2011) made especially clear in "Alone Together" – also requires the ability to resist being mastered by the medium, and to exercise self-control (cf. Schulmeister 2011).

Media use in learning contexts

The findings of studies on digital literacy are generally applicable to the handling of media in school, university and vocational training. Studies on media use by students[1] confirm that only a minority are equipped with strong media competence and express an interest in seeing more media used. 2,098 students took part in the online survey "Recruiting the Next Generation" (Schulmeister 2009b). They were asked about their use of the Internet. It was found that students used it to communicate daily, for research perhaps on a weekly basis, and for shopping perhaps monthly or less frequently. This ranking reveals a highly pragmatic use of Internet services. Students were either unfamiliar with or did not use half of 32 Internet applications on which they were questioned, including all the significant applications for learning (bookmarking, web conferencing, virtual classrooms, podcasts, etc.). Its principal use proved to be for music. Video, photos and film and Internet radio are the second most frequent type of use, while podcasts, Internet TV, games and weblogs are not used by the vast majority. Only applications promising clear added value are selected, and the rest are deselected. Several surveys have arrived at similar results (cf. Kleimann/Özkilic/Göcks 2008; Nagler/Ebner 2009). In the "ZEITLast" student workload project, a web-based time-budget analysis was carried out in 25 samples from 20 degree programmes, each for five months, logging the amount of time that students spent studying (cf. http://www.zhw.uni-hamburg.de/zhw/?page_id=419; Schulmeister/Metzger 2011). The survey also recorded how often and for how long they used digital media for their studies: media use relevant to the major subject of their study programme was confined to a few minutes per day, rising only slightly in examination periods. This tells us nothing about the total time that students spend using media, since activities in leisure time were deliberately not recorded.

1 *I confine these remarks to studies about students; I am not aware of equivalent studies for initial vocational training. In continuing vocational education and training, other necessities dictate the trend towards distance study, and hence also towards a simple form of media use.*

What can be concluded from this for the use of media in IVET, CVET and training in general? The vast majority of learners would like to see moderate use of media in teaching (Kvavik 2005). Communication functions and Facebook earn high approval from school pupils, vocational trainees and university students. E-learning and the rest of the Internet, however, do not measure up to the learners' needs.

Individual motives and abilities determine media use

The attempt to explain this behaviour brings to our attention – not for the first time in history – that causal conclusions about usage cannot be drawn from properties of the technology. The use of media and the misuse of technology, which can always be deployed ambivalently, cannot be ascribed to the capabilities of the technology but to the motives of individuals in the social and cultural context. It is not technology that determines use but social scenarios and cultural practices that influence the type of use (cf. Buckingham 2008; Jenkins).

Our focus must therefore be directed to the needs and motives of users in adolescence, whose primary socialisation goal is the development of their own identities. The lack of any transfer from leisure activities to learning can come as no surprise, because young people's search for identity is served primarily by communication in their free time. In a young person's world there is a strict distinction between leisure time and learning. Although the media offer rich opportunities for learning, this function goes unused. Young people confine their skills very much to leisure activities like maintaining contacts and communicating with peers via social media, surfing and, to a lesser extent, gaming.

The cautious approach of students to media is a reflection of their learning behaviour, for which social and cultural factors are responsible, along with psychogenic factors of the learning situation, which affect cognition, motivation and fear. Many learners succumb to distractions easily and tend to put off forthcoming tasks (cf. Güntert/Schleider 2011). Students who do not suffer from poor concentration and low endurance achieve better grades in less study time. For those affected by distraction and procrastination, the disturbances to learning have an adverse effect on their learning outcomes, even when the time spent studying is longer (cf. Schulmeister/Metzger/Martens 2012). The overwhelming majority of learners are thus a long way from the ideal of self-directed learning, and for this reason, we cannot reach all learners with a single form of learning provision.

Another reason for the divergence in media-use habits is the diversity of learners. It seems to be a false assumption that everyone would if only they could, and everyone could if only they knew how. The expectation nurtured by some e-learning enthusiasts that everyone will join in can only lead to disappointment. The group of proactive users will not exceed a minimal proportion, because not everyone can muster the self-organisation necessary for participation at all times (cf. Reinmann 2008). Studies on the basis of the self-determination theory of motivation only ever identify a few learners who have the self-determined motivation to learn in the given context (cf. Deci/Ryan 1985; Metzger 2011). It is therefore unrealistic to expect that all the people who use an innovation receptively will go on to use it actively. Internet users who are active producers will always be in the minority, but this should not be taken as a pessimistic assessment. People have different experiences, different interests, and get involved in different social and political issues. Perhaps they act with self-determination in other areas such as sport, culture, and politics or in social life, but not in learning. The diversity of learners is a great asset, and education must do it justice. ■

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Geographical mobility and qualification – a historical perspective

▶ **The fundamental economic transformation of the past few decades has caused seismic shifts in the interrelationship between geographical mobility and qualification, the conditions, forms and consequences of which are mapped out in this article. The great mass migrations of the 19th and 20th centuries were characterised by the movement of people with low qualifications to become a "cheap" and "willing" workforce for the extraction and exploitation of the natural resources specific to their destinations. Although it is a valid observation that migration has commonly been associated with gaining qualifications, in that era knowledge transfer due to the movement of specialists was only ever marginal in scale by comparison to the mass migrations of unqualified workers. In view of the accelerated pace of structural economic change since the Second World War, however, and the increasing level of professionalisation and specialisation in the most diverse fields of work, the acquisition of qualifications has since become a considerably more significant factor.**

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Structural change and mobility

"Mobilising skills for economic competitiveness", "free movement in education and training" and "removing barriers to labour mobility" are just some of the slogans from the debate on how to manage existing and foreseeable skills shortages in Germany and in other countries of the European Union. Amid ever-diminishing demand for low-qualified workers, who therefore have to contend with low incomes and lengthy phases of unemployment, the demand for (highly) qualified workers keeps growing. The vigorous debate centres not only on promoting intra-European mobility as a means of managing labour market shortages but also the prospect of attracting (highly) qualified workers from non-EU countries for European labour markets. It is almost impossible to make an accurate assessment of the chances of augmenting existing workforce potential with more highly qualified immigrants because a) the countries concerned are involved in global competition in this respect, b) various traditional sending countries of migrants to Europe are themselves undergoing substantial demographic and economic change, and c) in many EU countries, there is still little public acceptance of opening up labour markets to immigrants.

The drastic rise in demand for (highly) qualified workers in the last few decades in the face of falling birth rates is predominantly a result of the swiftly developing service economy and knowledge society, which is less and less dependent on the labour-intensive extraction and exploitation of site-specific natural resources. Things were different in the past: in earlier decades and centuries, a majority of jobs in agricultural and industrial societies did not require any substantial qualifications. Likewise, the labour migrants of the 19th and 20th centuries were generally low qualified.

Migrating to take advantage of opportunities – even without qualifications

Migration is relocation to a different place of residence by individuals, families, groups or entire populations, with intent to remain for a substantial length of time. Different dimensions of migrations can be distinguished (cf. Table). These include labour migrations, settlement migrations, nomadism, educational and cultural migrations, migrations for marriage and prosperity, and forced migrations (flight, displacement etc.). Leaving forced migrations aside, individuals, families and groups move voluntarily between geographical and social territories in the endeavour to earn a better living by improving their labour-market, educational and training opportunities or by exploring new opportunities (in this regard and on the following, cf. Oltmer 2010a, pp. 1–7).

In labour migrations the primary difference between the region of origin and the destination region is an economic disparity. This need not be understood as a generalised mismatch in economic development between two major regions, by any means; it is often restricted to particular, small-scale market segments. Specific social attributes of individuals or members of families or groups, which include gender, age, occupational status and qualifications, and imputed attributes (particularly regarding membership of ethnic groups, castes, races or nationalities) all affect market access and hence the ability to take advantage of the opportunities of migration.

A central element in both economic growth and economic integration and transformation in the agricultural and industrial societies of past decades and centuries was the availability of labour as a production factor, and the geographical movement of workers to extract site-specific natural resources. From the early 19th century onwards, the number of people turning their back on Europe rose rapidly. A small proportion of European intercontinental migrants, female as well as male, set forth overland and settled predominantly in the Asiatic regions of the Russian empire. The vast majority crossed the continent's maritime borders (cf. Figure, p. 38): of the 55–60 million Europeans who moved overseas between 1815 and 1930, more than two-thirds went to North America, predominantly the USA. Around one-fifth emigrated to South America and approximately seven per cent reached Australia and New Zealand. These million-strong migrations were mainly a result of high demand for unskilled and therefore cheap labour, people who cleared land for agricultural production with their bare hands, extracted important raw materials for European and North American industry, worked as "excavators" building railway lines, canals, streets and ports, or found employment in factories as unskilled or semiskilled workers (cf. Oltmer 2010b, pp. 178–188).

Table **Causes and spatio-temporal dimensions of migrations**

Cause
• Taking advantage of opportunities (labour and settlement migrations)
• Coercion (flight, forced displacement, deportation, usually for political and ideological reasons or as a consequence of wars)
• Crisis (e.g. environmental pressures induced by human or natural environmental destruction; emigration because of acute economic and social hardships)
• Education/training (acquisition of occupational or academic qualifications)
• Culture (cultural migrations, prosperity migrations)
Distance
• Intraregional (close migrations)
• Interregional (moderate distance)
• Transboundary (need not cover great distances but crossing borders generally has substantial legal consequences for the individual)
• Intercontinental (long distances and usually relatively high costs)
Direction
• Unidirectional (migration to a destination)
• Phased (stopovers are taken, mainly to earn money to continue the journey)
• Circular (more or less regular shuttling between two regions)
• Return migration
Duration of stay
• Seasonal
• Several years
• Working lifetime
• Lifelong

In parallel to the intercontinental labour and settlement migrations from Europe, there were massive population movements in the context of European and urbanisation. Particularly in Western and Central Europe, rapid industrialisation meant that a larger proportion of the population gravitated to urban centres than remained in rural areas. In the year 1800, statisticians counted 23 cities in Europe with more than 100,000 inhabitants; these were home to 5.5 million people in total. 100 years later, the count had risen to 135 cities with a total of 46 million inhabitants (cf. Bade 2000, pp. 69–84).

The rapid growth of European cities was closely intertwined with the fundamental shift in the balance of individual economic sectors in relation to agriculture, and the rise of manufacturing, industry and services: urbanisation was an outcome of extensive interregional labour migrations resulting from the rapid economic structural change caused by industrialisation. This geographical mobility was determined by a fluctuating mass of unqualified youthful immigrants and young families seeking work and higher earnings. Added to these were the many seasonal migrants – again, often young people – who worked in the building trade, for example, or in the case of women, in hotels and restaurants or in domestic service (maidservants).

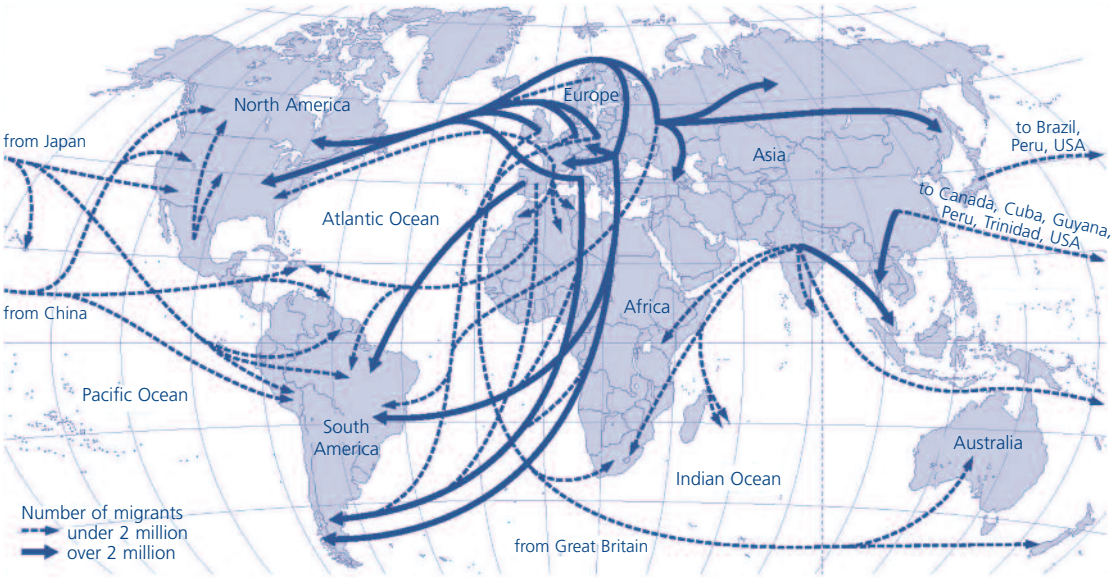

Figure
Global labour and settlement migrations 1815 – 1914
(Political and territorial situation in the year 2000)

Source: Oltmer 2010b, p. 180 f.

Migration as the transfer of special knowledge

Compared to the internal and cross-border mass migrations described, the number of movements of workers with qualifications remained low. Only in particular labour market segments and branches, migration served the purpose of transferring special knowledge or acquiring qualifications.

ACQUIRING KNOWLEDGE THROUGH MIGRATION

For instance, at the start of the 19th century, the rich tradition of journeyman migrations initially upheld its continuity and significance in relation to overall migration activity. Vienna, with a total population of 350,000, was the industrial and service centre of the German Confederation in the first half of the 19th century. It also played host to 140,000 to 160,000 craft journeymen every year. These were craftsmen who had completed their apprenticeships, after which it was compulsory to spend a certain number of years travelling according to the regulations of their guild. To varying degrees in each craft, this custom was aimed at transferring knowledge and technological innovation by means of migration. Furthermore, the guild regulations for travelling journeymen amounted to steering instruments in labour markets: the compulsory migration was in the interest of the master craftsmen, who wanted to keep the employment of journeymen as flexible as possible because the demand for labour was constantly changing due to seasonal fluctuations and reacted extremely sensitively to short-term economic, demographic or political crises, e.g. plagues or wars (on this and on the following, cf. Oltmer 2010a, pp. 15-26). Migrations by journeymen lasted for three to five years and sometimes took them all over Europe. Working stopovers with employers could last for days, months or even years and were interspersed with phases of unemployment and migration. The migration and employment patterns of journeymen were adapted to production cycles that were usually seasonal. A key characteristic of their labour markets was rigid segmentation: each skilled craft had its own labour market and its own set of regulations on the journeyman years. Furthermore, the labour markets were regionally segmented, which had more than a chance influence on migration routes.

Systems of migration which operated for centuries and were associated with gaining qualifications can be observed elsewhere in the German building trade, e.g. among brickmakers, of which the group from the Lippe region is the best documented: it was in the 17th century that former seasonal farm workers began to specialise in the production of bricks and roof tiles. Within a few decades they had monopolised the labour market for brickmakers in East Frisia and in neighbouring Dutch Frisia, expanding into Schleswig-Holstein and Jutland in the 19th century. Up to the First World War there were brickmakers from Lippe to be found throughout north-western Europe and southern Scandinavia, and sometimes far beyond (Russia, Austria, Hungary). Around 1900 one-quarter of all adult men in

Lippe were employed as seasonal workers in the brickmaking industry

Lippe's brickmakers provide an example of occupation-specific migrations of the kind that became well-established in some trades during the Early Modern period. Yet the qualifications offered in these niches cannot be traced back to the tiny region from which the workers originally came. Those who embarked on such migration were not skilled workers when they left; they gained their specific occupational knowledge only as a result of labour migration.

In Lippe, for example, there was no distinctive brickmaking industry and the predominant building style consisted of timber-framed houses with lime plastered walls. The (informal) training in brickmaking was undertaken in the groups who lived far from home and tended to work together for many years. Likewise, in large areas of Europe, active whitesmiths from the Italian Alps acquired their knowledge only on leaving their regions of origin where there was no tradition of this craft.

DISSEMINATION OF KNOWLEDGE THROUGH MIGRATION

The special knowledge of migrant groups from identical home regions was transmitted within stable communication networks based on kinship or friendship. Pioneer migrants took advantage of labour-market opportunities more less ad hoc, and if the segment proved suitable for developing further market opportunities, they passed on specific knowledge to friends and relatives. These in turn were available, once their training was complete, to pass on knowledge to new migrants within the communication network. In this way a group could take control of specific labour-market and product niches and maintain this dominance over a long period of time in particular regions.

The transmission of specialist occupational knowledge within firmly defined communication networks based on kinship and friendship is by no means a thing of the past: in the Republic of Ireland today, for example, the owners of almost all fish-and-chip bars originate from the village of Casalattico in the Italian province of Frosinone, or within a 10 km radius of that village. The first fish-and-chip bar in Ireland run by an Italian from this narrowly defined region of origin was opened in 1904. Currently three-quarters of all Italian migrants in Ireland originate from the village of Casalattico, which also means that almost all Italians in Ireland run fish-and-chip bars (cf. other examples of similar phenomena in BADE et al., 2010).

Immigrant specialists were frequently pioneers in the industrial development that brought mining and metallurgy centres to prominence in many parts of Europe, by using their skills to exploit new deposits. The knowledge passed on by itinerant specialists was constitutive for the introduction of new technologies in other sectors, too, including mechanical engineering, textiles and heavy industry. This was particularly true in the early phase of industrialisation, during which time models of formalised training in the technical and engineering occupations were – only gradually – taking shape. In France, for example, the immigration of British technologists was concentrated into the period from the 1820s to the 1840s. As a rule they stayed for just a few months or years, generally gravitating to where the technological superiority of British industry promised some modernisation of traditional processes. This applied particularly to the iron and steel industry, the textile industry, and other processes that were switching to the use of steam-powered machinery.

For example, the English "puddlers" were manufacturers of high-grade iron and steel using a process developed in England. Between 1820 and 1850 they brought the process to Belgium and France, and finally to Germany. A tendency was apparent among the puddlers that has also been observed in other groups: knowledge transfer by migrating specialists could be so effective as to make migration redundant. By the mid-19th century there were enough native puddlers on the continent, and by the time new steel manufacturing processes were introduced in the second half of the 19th century, demand for highly specialised puddlers had tailed off completely.

Although Great Britain continued for some time to exert an attraction for technologists, engineers and entrepreneurs from the continent who were seeking to improve their knowledge of modern manufacturing processes and forms of distribution, the balance shifted in the late 19th century and German industry garnered a more prominent role in the forms of knowledge transfer necessary to pass on technical innovations. Up-and-coming specialists were now moving to Germany in ever-increasing numbers. This also furnished the context for the growing appeal of universities, and especially polytechnic universities, in the eyes of foreign students, as a result of the ascendency of education and training in engineering and the natural sciences in Imperial Germany. A similar effect could be attested for agricultural and trade colleges, mining academies and other technical colleges. In 1912 the student population of around 13,000 at Germany's polytechnic universities included some 4,400 foreign citizens, the largest single group being almost 2,000 subjects of the Russian Tsar.

Already the founding of numerous academies and universities for technical and engineering professions suggests that since the late 19th century, in particular, professionalisation gained considerable weight in diverse lines of work. Against the backdrop of rapid technical progress and the

increasingly scientific nature of many fields of employment, access to certain segments of the labour market without formal education qualifications was no longer possible. Work opportunities for unqualified workers dwindled but, even after the Second World War, did not dry up entirely as is evident from the history of foreign-worker recruitment in West Germany from the 1950s to the early 1970s. By 1973 the foreign working population in the Federal Republic of Germany had grown to around 2.6 million. From the end of the 1950s up to 1973, around 14 million foreign workers had come to Germany. Some 11 million of them eventually returned home; the rest stayed and were joined by their families.

Limits to state control of geographical mobility

The early 1970s brought the decline of the old industries (iron and steel, textiles, mining) which had employed the many unskilled and semiskilled workers. Germany's halt on the recruitment of foreign workers in 1973 is symbolic of structural change in the labour market. Rationalisation and automation of production led to a rapid fall in the demand for unqualified employees in the 1970s and 1980s. This was a development precipitated by the digital revolution that began in the 1980s and has affected all fields of work. Now the only people with good job prospects are those who acquire occupational qualifications. Geographical mobility can be a prerequisite for gaining such qualifications and can improve the chances of making appropriate use of them in an occupational field; it can also support the transfer of technologies and specialist knowledge. However, in neither case has geographical mobility ever been an indispensable precondition and nor will it be in future, especially as there are signs that the digital revolution will reduce the need for physical relocation.

State steering of migration is an extraordinarily difficult undertaking, as various historical examples show, because the underlying reasons why people act on their willingness to migrate are unfathomably complex and the individual perceptions of the opportunities and risks of migration are very varied. Furthermore, what effect political intervention will have on migration choices is virtually impossible to predict accurately. Because migration processes essentially have open outcomes, there is always a chance that incentivising mobility could set in train permanent depopulation trends that are deemed undesirable. ■

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Learning abroad: Current status and prospects of cross-border mobility

▶ **In Germany there is a broad consensus among the partners involved regarding stays abroad during the individual's vocational training. Stays abroad are considered the ideal way to acquire the international occupational competence which is needed for many jobs today. Despite the importance attached to stays abroad, it had not however been known to date how many persons undergoing initial vocational training complete a phase of their learning in another country per year. A study conducted on behalf of the Education for Europe – National Agency (NA) at BIBB examined this question. The following article presents key findings from this study. It also examines what action would have to be taken so that the widely-accepted practice of completing a phase of learning in a foreign country can be incorporated into the vocational education and training field as a normal, integrated learning segment.**

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Stays abroad undertaken during initial vocational training

The Mobility Study (see FRIEDRICH/KÖRBEL 2011) commissioned by the Education for Europe – National Agency (NA) at the Institute for Vocational Education and Training (BIBB) showed that during the period from 2007 to 2009 an average of 23,500 persons a year completed a stay abroad. This is 50 per cent more than previously assumed and represents three per cent of all persons undergoing initial vocational training. This study thus makes it possible to describe for the first time the phenomenon of cross-border mobility using more than the figures that were already available from existing funding programmes. The study revolves around a survey of nearly 21,000 persons completing their final year at a part-time vocational school. Mobile persons, enterprises and external training centres were also surveyed (see Table 1).

Titled „Hidden Mobility in Vocational Education and Training", the study 'revealed' first and foremost that 39 per cent

Table 1 **Study profile**

Title	Hidden Mobility in Vocational Education and Training – Ascertaining stays abroad which are undertaken during initial vocational training outside the framework of the EU's Lifelong Learning Programme and bilateral exchange programmes of the Federal Ministry of Education and Research
Objectives	• Determine the absolute and relative amount of mobility during initial vocational training in Germany. • Ascertain the benefits that mobility brings from the participants' point of view. • Ascertain the benefits and challenges from the enterprises' point of view.
Scope of the survey and method used	• 20,949 persons in the final classes at part-time vocational schools were surveyed using questionnaires that were distributed for circulation in the individual classes. • 502 mobile persons undergoing initial vocational training were surveyed regarding the benefits of stays abroad. This information was obtained using an online questionnaire. • 785 enterprises were surveyed using a questionnaire. • 625 providers of extra-company training were surveyed using a questionnaire.
Period	2009 – 2011
Conducted by	Wirtschafts- und Sozialforschung WSF, Kerpen
Further information in German	www.na-bibb.de/uploads/allgemeiner_bereich/studie_verdeckte_mobilitaet_kurzfassung.pdf

of all stays abroad undertaken during the individual's initial vocational training (8,900 persons) each year are undertaken without any financial assistance from the public sector. Thus the level of cross-border mobility during initial vocational training is much higher than was previously assumed. The largest funding programme by far in this area is the Leonardo da Vinci programme. It represents 37 per cent of all mobility in this connection. The bilateral exchange programmes which Germany's Federal Ministry of Education and Research conducts together with France, The Netherlands, Great Britain and Norway together account for eight per cent, as do the programmes sponsored by foundations and chambers. Programmes from other sponsors constitute the remaining eight per cent (see Figure 1).

Figure 1 **Average number of persons participating in mobility programmes during initial vocational training,** 2007–2009 (n = 23,500)

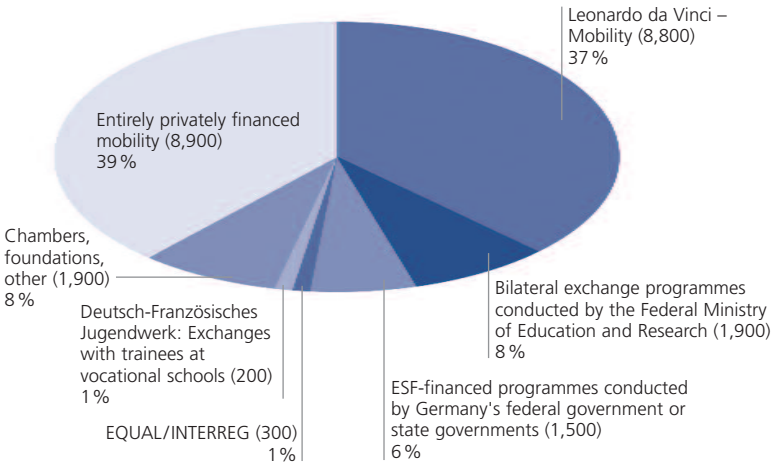


Figure 2 **Benefits of stays abroad from the participants' point of view** (100-point scale, multiple answers possible; n = 502*)

* Respondents in the online survey

Ninety per cent of the stays abroad are undertaken in Europe. The major European and national funding programmes are limited to this region. Consequently, at ten per cent, extra-European mobility is surprisingly high. The USA accounts for four per cent, making it the seventh most important destination country. Thus, one of the first key findings from the study is that stays abroad undertaken during initial vocational training are more common, longer, more global and more 'dual' than was previously assumed, even by the National Agency at BIBB.

Benefits from the participants' point of view

From the participants' point of view, the greatest benefit from mobility arises in those areas which entail personal, social, foreign-language and professional skills. In addition, participants expect a stay abroad to improve their chances when seeking employment in the future (see Figure 2). According to the participants, their stays abroad are pr marily documented using the Europass – Mobility (29%). The second most important form of documentation is a traineeship certificate (23%). However, 21 per cent of the respondents said that they had not received any document at all. A marked difference can be seen here between participants in the Leonardo da Vinci programme and the bilateral exchange programmes of the Federal Ministry of Education and Research on the one hand and the other programmes on the other hand. Only six per cent of the former group had not received any document, compared to 30 per cent of the participants in the latter group.

When trainees and students at vocational schools are asked about the overall benefits of their stay abroad, the first impression is a high degree of satisfaction. The majority of all respondents (79%) considered their stay abroad to have a „large" or even „very large" overall benefit. The level of satisfaction was even higher (87%) among participants in the two major types of programmes – the EU's Leonardo da Vinci programme and the bilateral exchange programmes sponsored by the Federal Ministry of Education and Research – than among persons in other programmes (73%).

Findings from the company survey

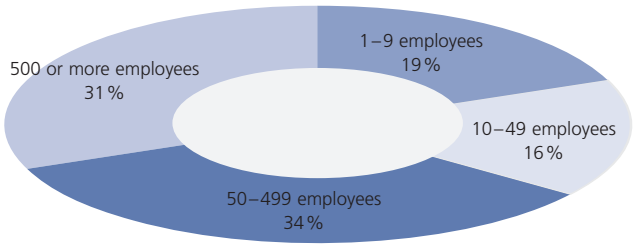
The company survey conducted as part of the study showed that only some seven per cent of the companies surveyed send trainees abroad on a regular or intermittent basis. Based on the responses of the 785 participating enterprises, it can be expected that this figure will rise in the coming years. Six per cent of the surveyed companies said they „definite-

ly“ and 33 per cent „perhaps“ wanted to send trainees abroad in the future. Running contrary to this trend however, 61 per cent still report that they „tend not to“ or „in no way“ allow their trainees to undertake a stay abroad.

The level of mobility among trainees in small and medium-sized enterprises (SMEs) is surprisingly high. Sixty-nine per cent of mobile trainees come from enterprises with fewer than 500 employees (see Figure 3). Although such enterprises seldom conduct projects themselves, many trainees from SMEs make use of offerings organised through schools or chambers.

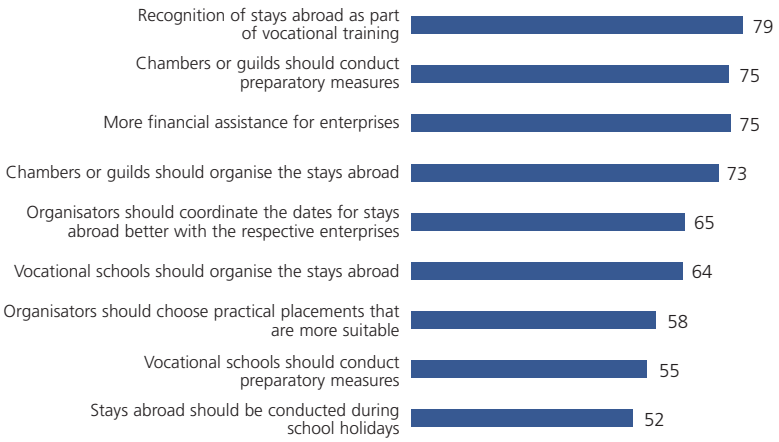
Enterprises which do not allow their trainees to undertake a stay abroad cited the actions listed in Figure 4 as necessary to producing greater mobility. It is striking that recognition of stays abroad as being part of a vocational training programme continues to be perceived as an urgent problem, although strictly speaking this problem was solved with the amendment of the Vocational Training Act in 2005. It appears that there is still considerable uncertainty and a sizable need for information in this connection. In addition, inactive enterprises clearly stated a desire for organisational support.

Figure 3 **Mobile trainees, by company size** (n = 376*)



* Respondents in the online survey, without students at full-time vocational schools

Figure 4 **Action necessary to ensure higher levels of mobility from the enterprises' point of view** (in % of companies, multiple answers possible, n = 730*)



* Only enterprises which do not allow their trainees to undertake a stay abroad during their training

Future development of cross-border mobility

Fundamental factors currently favour the growth and progressive development of mobility. Four factors that foster mobility and two that inhibit mobility will be briefly outlined in this section. Increasing *globalisation* leads to concrete changes in the workplace which require workers to have undergone vocational training (see Hall 2007). Enterprises and vocational schools are responding to this and are increasingly integrating instruction in international competences into the training they provide. Enterprises are also incorporating learning phases abroad into the in-company vocational training they provide in order to make it more attractive – a trend which will grow due to the *demographics-driven decline in the number of training place applicants*.

The *policy framework* for increasing and developing mobility during initial vocational training is favourable because guidelines and benchmarks have been formulated at national and European level. In this context, State Secretary Helge Braun speaking at the presentation of the Mobility Study in April 2011 again stressed the importance of Germany's national benchmark: „An internationally-oriented economy needs skilled workers with international training. For this reason we want to double our already high level of outgoing mobility by the year 2015.“ The internationalisation of training regulations and a marked increase in longer stays abroad (six weeks to three months) – in addition to doubling mobility – were already laid down as objectives by the Federal Ministry of Education and Research together with the social partners back in 2007 in Guideline 8 issued by the Innovation Circle on Vocational Education and Training (Federal Ministry of Education and Research 2007). It appears that when mobility continues to increase at a rate of ten per cent a year as it has in recent years and the necessary funds are made available, it will be possible to achieve the ambitious target of doubling the mobility level by the year 2015. Raising mobility levels has been given high policy priority at European level as well. For instance, the European Council dedicated one of the seven flagship initiatives in its Europa 2020 strategy to boosting mobility in all fields of education (see European Council 2010). In the current generation of programmes under the EU's Lifelong Learning Programme, the Leonardo da Vinci sub-programme already has the goal of each year helping 80,000 individuals undertake a period of practical training abroad during their initial or continuing vocational training by the year 2013.

In addition to the above-mentioned trends and political priorities, actual conditions for mobility have also developed favourably. A variety of nation-wide mobility guidance services for enterprises has been available in Germany since 2009. For example, the Vocational Education and Training

Without Borders programme has 35 mobility consultants at chambers throughout Germany. These consultants are being financed by the Federal Ministry of Labour and Social Affairs with funding from the European Social Fund. As a result, enterprises now have points of contact in their area who can meet their need for assistance. These contacts help enterprises apply for, prepare and conduct mobility projects. A number of states have had a similar set-up for vocational schools for many years.

Given these favourable factors, why isn't mobility increasing at a faster pace? The most important point to be cited here is the *additional work and expense* that arise in connection with integrating foreign venues as additional places of learning into vocational training. Although developments in recent years have brought legal clarity and reduced the amount of bureaucracy, preparing a relocation of the learning process to another country and conducting the requisite quality assurance entail additional work and expense despite funding programmes and support measures. For this reason, enterprises and schools will continue to carefully assess and weigh the additional cost and effort against the additional value offered by stays abroad.

The lack of *high-quality certification instruments* poses a further obstacle. Germany presently does not have a standardised certification instrument that is valid nationwide which would make it possible for trainees and enterprises to officially document additional competences that were taught/acquired during the individual's stay abroad. The Ausbildung Plus database (see AusbildungPlus) offers an overview of the certificates that are currently in use. As a rule, the international supplementary qualifications listed in the Ausbildung Plus database are documented by a certificate issued by the training provider or using the Europass Mobility. Germany currently has only two models – at the level of chamber regulations for advanced training examinations – which offer a high-quality standard with at least regional scope. Although 23,500 individuals complete a stay abroad every year, Germany still does not have a standardised national certification instrument such as the certification instruments which could be established for supplementary qualifications that are earned during initial vocational training and are governed by the Vocational Training Act. Today, the lack of a standardised high-quality nation-wide certification instrument must be viewed as an impediment to mobility.

Implications for the progressive development of vocational education and training

Three per cent of all persons undergoing initial vocational training are internationally mobile. The question of whether this is considered a lot or a little depends primarily on whether the focus is on the level at which mobility in the vocational training field was 20 years ago or whether the focus is on how high the level of mobility should preferably be today. The amendment of the Vocational Training Act in 2005 served two important purposes for cross-border mobility. Firstly, it legitimised the some 10,000 stays abroad that had been undertaken to date as a component of vocational training. Secondly, it sent a strong signal for expanding mobility in the vocational education and training field. The number of stays abroad has more than doubled in the ensuing years. This raises the question of how stays abroad could be systematically integrated into Germany's VET system as a desirable, normal element. There are six core areas of activity to be mentioned in this connection:

1. Anchor a national standard for certification in regulations on a modular basis: Given that every year 23,500 trainees and students at full-time vocational schools undertake a stay abroad as part of their training, a regulatory concept is needed so that international occupational competences acquired abroad can be appropriately certified on the basis of a national standard. The supplementary qualifications that are provided for in the Vocational Training Act but have been made little use of to date (see also Böhle in BWP 4/2011) are one example of a possible means for this. A modular approach could be chosen that makes additional competences which the individual has acquired quite visible without putting at a disadvantage enterprises and trainees who do not strive for the particular supplement-ary qualification.

2. Ensure 'mobility windows': Mobility among university students in Germany has declined in the wake of the introduction of bachelor's and master's degree programmes (Federal Ministry of Education and Research 2010). This has been due primarily to the fact that these degree programmes in their current form usually do not foresee stays abroad and therefore essentially sanction them even though one of the intentions of launching the Bologna Process was to facilitate mobility. The vocational training field must learn from this that training programmes need 'mobility windows' during which it is possible and intended that individuals complete part of their training abroad. In light of the use of extended examinations, windows of time, in other words, phases when there is less pressure to learn, predestining their use for completing a stay abroad, are also disappearing in the VET field.

3. Expand financing: Due to the above-mentioned conditions, it is to be expected that the demand for stays abroad during vocational training will continue to grow. Mobility projects require core financing from the public sector in order to activate additional private funding. Budget plans at European and national level must take this increase in demand into account.

4. Mobility and the ECVET: The Federal Ministry of Education and Research has decided to test the European Credit Transfer System for Vocational Education and Training (ECVET) in Germany, starting in the area of cross-border mobility (see Küßner/Drews in BWP 4/2011). The first mobility projects which are geared to fundamental elements of the ECVET were launched in 2010. The credit transfer system offers many opportunities for encouraging mobility. It is important to organise this longer-term transition process to be open and to take into account the enormous need for information among the project sponsors and in the VET field in general.

5. Internationalisation of learning venues: The international elements in vocational education and training will increase. Mobility among learners is just one aspect in this connection. It would be helpful if the institutions involved were to define their internationalisation strategies with regard to their aims, activities and resources and incorporate them into their mission statements and concepts. This applies to all VET facilities because even the training departments of international companies do not automatically have an international focus in their training activities.

6. VET professionals: An education system's level of internationality is determined by the skills and competences of the actors in the system. Vocational training can be internationalised only when the training/instruction personnel's international skills and competences are developed at the same time. The revision of the Ordinance on Trainer Aptitude has incorporated international aspects for the first time. However, it will additionally be necessary to improve VET personnel's language, intercultural and professional skills and create corresponding training products for this. Mobility programmes for VET professionals could make an important contribution toward this. ■

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Republication of the English article "Learning abroad: Current status and prospects of cross-border mobility"

This article dating from 2011 is being republished in the English language Special Edition in 2013 because key findings of the described study and the vocational education context are still applicable. The article is accompanied by the following information panel which provides a short update on recent developments.

LATEST DEVELOPMENTS

The statistics given in the article refer to a study covering the period from 2007 to 2009. The background conditions and the structural findings continue to be applicable. To bring the content up to date, attention need only be drawn to two key developments and to the current figures, which have risen markedly.

ECVET: The mobility projects launched to pilot elements of the European Credit System in Vocational Education and Training (ECVET), which were first approved in 2010, have now been concluded. The results of these and other ECVET projects have flowed into the drafting of the common European instruments for formalising credit-transfer partnerships (ECVET Memorandum of Understanding) and expected learning outcomes (ECVET Learning Agreement). In 2013 almost 1,000 applications were submitted under the LEONARDO DA VINCI mobility programme for training periods abroad complying with ECVET standards.

Attractiveness of vocational education: The decline in applicant numbers in the vocational sector resulting from demographic change has led companies to redouble their efforts to offer attractive initial vocational training schemes, particularly with a view to recruiting young people of high ability. Therefore companies are now also seeing the attractiveness of training periods abroad as an important factor alongside the benefits to individuals and companies pointed out in the study. The following table gives an overview of the statistical development of training periods abroad and targets for the initial vocational training segment.

	Stated in article	2012 (2013)
Mobility rate (Percentage of persons in initial vocational training which includes a placement abroad)	3%	4%
Placements abroad during initial vocational training under the LEONARDO DA VINCI mobility programme	8,800	14,358
National benchmark for international mobility	Doubling of international mobility by 2015	"By 2020 at least 10% of trainees should be able to gain experience abroad during their initial vocational education and training". (Bundestag Decision of 17.01.2013)
European benchmark for international mobility	80,000 persons in the year 2013	"By 2020, an EU average of at least 6% of 18- to 34-year-olds with an initial vocational education and training qualification should have had an initial VET-related study or training period (including work placements) abroad". (Council Conclusion of 15.11.2011)

"Training for all" calls for a pedagogy of diversity

▶ **The aim behind the principle of "training for all" is to enable all young people to achieve integration into employment and society through an initial vocational qualification in a skilled occupation. It is the vision of inclusive education to give all young people access to high-quality education, putting everyone in a position to develop his or her potential. In the UNESCO "Education for All" programme this is formulated as a universal aspiration, irrespective of a person's gender, social and economic conditions or particular learning needs. This article looks at which steps have been taken, what has been achieved so far and where further action is needed in order to progress towards this goal. It also asks how important the concept of inclusion is for the assistance of disadvantaged individuals in the vocational training system.**

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Training for all – becoming a reality?

The policy objective of "training for all" is by no means new. German education policy guidelines have referred to it since the 1960s with the intention of using target-group appropriate training strategies to integrate "excluded" and "disadvantaged" learners into vocational education processes. The result has been increasing diversification and modification of the German system of recognised occupations and vocational training. Yet fundamental structural changes to the vocational education and training (VET) system as a whole have not taken place – although they have been called for repeatedly (cf. inter alia Deutscher Bildungsrat 1970, Euler/Severing 2007). Instead, changes were made primarily in relation to the specific field of assisting disadvantaged individuals. These involved not only adaptations to a labour market situation affected by structural changes of a technological, occupational and social nature but also adaptations due to the diversifying and changing nature of the target group. Young people seeking initial vocational education and training (IVET) in a recognised occupation are becoming increasingly diverse, taking account of such factors as nationality, age, gender and living circumstances.

The almost unmanageable proliferation of special programmes that grew up in the 1980s/1990s, supported by the Federal Government, the German Länder and the EU, contributed in part to the emergence of a specific system for assisting disadvantaged individuals. Alongside dual-system and full-time school-based training, a third sector has become established within the vocational education system: it is known as the "transition system" although it only enables a small proportion of (disadvantaged) young people to accomplish transitions into training programmes conferring a full vocational qualification.

ASSISTING DISADVANTAGED INDIVIDUALS AS AN INTEGRAL COMPONENT OF VOCATIONAL EDUCATION

With the resolutions of the working group on "Initial and Continuing Vocational Education and Training" of the former "Alliance for Jobs, Training and Competitiveness",

assistance for disadvantaged individuals in the vocational training system was defined as a permanent task and an integral component of vocational education, irrespective of developments in the apprenticeship place market (cf. BMBF 2000). The consensus was that training prospects should be improved, particularly for young people "without a school-leaving qualification but with often considerable behavioural and learning problems". To this end, the broad-scale provision of specific measures to prevent disadvantaged target groups from missing out on training was deemed to be a "permanent necessity" (ibid). The BQF programme ("Vocational qualifications for target groups with special needs"), launched by the Federal Ministry of Education and Research (BMBF) in 2001, took up this issue. Its foremost objective was further structural development of assistance for disadvantaged individuals in the vocational system; "training for all" and "integration through qualification" were the central guidelines. In this context, a "new assistance structure" for prevocational training was developed and piloted (cf. inter alia THIEL 2001). The resultant broad-scale introduction of the strategic concept for vocational preparation schemes (German Social Code, Book III, Section 61) was intended to foster apprenticeship-entry maturity, career choice and integration into IVET. After an introductory diagnostic test, young people should receive optimal assistance in the form of individual support plans and tailored educational strategies. Since then, efforts have focused on increasing the company-based, practical share of training and on forming regional networks. Regional cooperation and integration of both training provision and stakeholders are currently being pursued by the BMBF in its "Vocational qualification prospects" programme (2008–2012) and "Education chains leading to vocational qualifications" initiative in the aim of improving the transition into dual-system IVET (cf. www.perspektive-berufsabschluss.de and www.bmbf.de/de/14737.php; cf. also interview with PETER THIELE in BWP 2/2011).

IS A SPECIAL PEDAGOGY REQUIRED FOR ASSISTING DISADVANTAGED INDIVIDUALS?

In the last three decades, assisting disadvantaged individuals has successively developed as a field of activity in its own right. Its specific feature is that the need for assistance is justified by particular criteria of disadvantage, which are attributed to particular individuals. BOJANOWSKI (2005, pp. 331 f.) talks about a group of young people with problems on multiple levels. Particularly in the early days of "IVET oriented to social pedagogy" (1980) separate learning settings were developed for this target group. The particular strength of these lay in the handling of heterogeneity, diversity and difference. This approach was limited to the field of assisting disadvantaged individuals, however, and was not transferred to the German VET system as a whole. Thus assistance to disadvantaged individuals developed (apparently) independently from the "mainstream system" and increasingly became a "parallel system" in the 1990s (cf. BRAUN 1999). Clear reservations were voiced about a "pedagogy for assisting disadvantaged individuals". Criticisms were directed at the orientation to deficits, the labelling engendered by the (apparent) special nature of the strategies, and their relative lack of effectiveness. All pedagogic concepts will always collide with the boundaries of institutional structures, VET system structures and the limits imposed on social-state authorities by the laws governing assistance (cf. ENGGRUBER 2001; RÜTZEL 2000). Thus pedagogic concepts focused on the objective of "training for all" are of limited effectiveness.

The particular within the general

Thus, the question remains: does the particular need its own pedagogy or do the general learning arrangements of vocational pedagogy apply? A pedagogy for disadvantaged individuals in a specifically designated field of activity harbours the risk of entrenching their excluded status. At the same time, expert knowledge is called for so as to initiate individualised learning processes and to integrate specific contextual conditions. This is currently being debated as an aspect of "diversity competence". KIMMELMANN (2010, p. 10) describes diversity competences not exclusively as "special competencies" but as "abilities that are fundamentally relevant to vocational education". "Openness and interest towards the individual learner and his or her personality as it impacts on learning" are numbered among its central features.

DIVERSITY AS A RESOURCE: FROM INTEGRATION TO INCLUSION

In the pedagogy of special education, inclusion is seen as an extended and "optimised integration" (cf. SANDER 2002): integration incorporates special educational support for specific target groups, it is suggested, whereas inclusion takes account of all learners, each with their own specific educational needs. Another author pointing in this direction is HINZ (2004), who describes the inclusion concept as the "theory of a pedagogically indivisible heterogeneous group", which provides for collective but individual learning and an individualised curriculum for all. What is significant is that people with disabilities or disadvantages are no longer considered within the inclusion concept as self-contained groups "in need of assistance".

In that sense, the inclusion concept is helpful for work to assist disadvantaged individuals, since the systemic approach – unlike an individual-centred approach as used in integration pedagogy – pursues the institution of a comprehensive system for all. In applied terms, what this means

is that (vocational) pedagogy directs its focus towards each individual's prerequisites for learning (subject orientation), takes account of young people's competencies and existing support structures (resource orientation), their social living conditions and milieus (system orientation), and actively involves young people in learning processes (participation).

If the principle of inclusion is pursued, then assisting disadvantaged individuals ought to be part and parcel of general pedagogy. Specific aspects must be reflected in a system of didactics that can engage with young people's common features and differences in equal measure – which is implicit to "subject orientation" (cf. Rützel 2000). This is clearly associated with a competence- and resource-oriented approach.

"PREVENTION": THE FIRST STEP TOWARDS INCLUSION?

Effective early assistance for school pupils in the context of vocational orientation, which begins during their general schooling, is based on the principle that "prevention is better than cure". If we see prevention as "prospective problem avoidance" which is not oriented solely to individual deficits and the objective of which is to create equal opportunities for young people, it points in the same direction as the inclusion concept. To that extent the question is whether prevention can be considered as the first step towards inclusion. A prerequisite would be that early intervention tackles different levels of the system, addressing such aspects as:

- the individual and an appropriate form of individual support to counteract the process whereby disadvantage develops,
- the structural risk factors, which relate to the individual and which exist because of cultural or social background, gender, level of educational qualification, etc.
- the learning context and the development of integrated and subject-oriented learning situations with individualised learning support (individual support plan), and
- the structural risk factors that relate to the selective structures of the mainstream system (e.g. the tripartite school system).

Only then can systemic and contextual conditions come about in which all young people are reached and enabled to learn, in conditions which foster the development of their potential. This can only be accomplished if, for example, vocational orientation is embedded as a segment in a systematic transition process from school into working life, and if changes are implemented on the institutional level (e.g. school), to education concepts and curricula (e.g. the school programme, educational support), to the regional context (regional transition management) and, not least, in the education system itself (integrative school types, modularisation within VET).

Need for action on different system levels

As this brief reconstruction shows, assistance for disadvantaged individuals has constantly undergone further horizontal and vertical differentiation. It has long lost its originally envisaged function as a short-term steering and intervention instrument (cf. Münk 2008, p. 32). Despite enormous resources, its effectiveness is limited (cf. inter alia Timmermann 2004). The aspirations to take account of different learning prerequisites and to strengthen social and personal competencies and integration into IVET and employment are only partly being fulfilled. Although the authors of the 16th Shell Youth Study (cf. Albert/Hur-

RELMANN/QUENZEL 2010) state that the majority of young people look optimistically to the future, confidence among the most socially disadvantaged individuals clearly remains on a downward trend. This affects young people who are lower achievers at school, those with migrant backgrounds, and young women, especially young mothers (cf. BEICHT/ULRICH 2008).

Analyses on selection in the education system point to systemic structures as the principle inhibitors of successful vocational integration (cf. e.g. CHRISTE/REISCH/WENDE 2009). For example, MÜNK (2008, p. 44 f.) sees clinging to the dual system as the "high road" as the principal cause of the transition system's dysfunctionality, since that mindset turns the dual system into a bottleneck and leads to exclusion instead of integration. The findings of MÜLLER-BENEDIKT (2007), that changes in system structures are more promising than intensive individual assistance, are significant in this context.

Even so, concepts involving support and assistance must not be overlooked. Learning processes begin with the learners themselves and their potential as the starting point. Existing methods of vocational, special and social pedagogy (including exemplified learning, subject orientation and empowerment) are being implemented and refined successfully in the practice of assisting disadvantaged young people. They remain ineffective, however, when they collide with rigid, unchangeable institutional or systemic boundaries.

Thus the idea of inclusion extends perspectives for action because it points out the necessity for change on different levels of the system levels without neglecting the importance of factors relating to the individual. Individual risks of disadvantage can only be eliminated in conjunction with changes on the structural level, i.e. leaving special measures behind and changing the mainstream structures. This also involves embracing the aspect of lifelong learning, and shaping the education system in such a way that it opens up access and educational opportunities to anyone, whatever their biography. Important elements to accomplish this include modularised training courses, credit systems, competence and output orientation as well as certified competencies that are not specific to any given learning venue. To allow individuals to develop their potential, the design of the education system needs to be oriented to the education policy guidelines of inclusion, the goal of which is to open up and change the mainstream system. ■

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Treat the unequal as unequal! Inclusion means thinking differently

▶ **The concept of inclusion has become established in various fields such as special needs and mainstream school education, social work, migration research and the sociology of education. Even in business administration and management theory, the inclusion of diversity is attracting ever increasing interest, not least from an economic viewpoint. The question this raises, however, is whether this interest is not just "old wine in new skins"? Why did integration dominate the discourse until quite recently, and why the growing emphasis on inclusion today? This article compares the concepts of inclusion and integration and looks at the different logic of educational practice entailed by each concept. Attention is also directed to the structures and mechanisms of an exclusive German education system. The implementation of an inclusive pedagogy calls for changes to these precise aspects, which will be outlined in the conclusion.**

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Production-line education

If the task were to summarise the criticisms of Taylorism, the analysis would inevitably have to include the following aspects: detailed instructions and fragmented tasks which permit only one pathway to the finished product; rigid one-way communication with tightly circumscribed content; strictly specified place and time of production; quantified targets for the individual; overall objective alienated from the job done by the individual. This management logic can be transferred astonishingly well to the reality of teaching and the school system: there is a plan (the curriculum) that stipulates the input relatively precisely; this input is broken up into 45-minute time-slots (teaching periods); during such a period teachers pose numerous questions (on average 50 to 80, depending on the study) which the learners have never generally asked themselves (form of teaching); there are various "production lines" for high, medium, basic and lower quality (types of school), and a continuous selection process addresses any deviations from tolerance limits (pass/fail grades, being made to repeat a class or transfer to a different school type). Whereas in the past almost all young people – regardless of their school career – could be integrated into the labour market in some form, today educational impoverishment is manifesting itself as a central problem for the economy and the social state. Some 400,000 young people per year find themselves without a place in company-based nor in school-based initial vocational education and training, but in what is known as the "transition system" (Autorengruppe Bildungsberichterstattung 2010). Not only does this cause the social insurance funds to lose revenue, but the prolonged duration of school attendance or alternative measures to assist disadvantaged individuals in the vocational training system give rise to additional costs. That sums up the economic rationale for inclusive participation in education. The normative perspective, which lays claim to a far longer philosophical and educational tradition, prioritises aspects of fairness and personality development. Both lines of argumentation come together in the concept of inclusion: inclusion effectively means fostering involvement or belonging. So how does it differ from the concept of integration?

Inclusion: being different and belonging

Here the differences will be made explicit using the example of the social integration of migrants. So, for example, ESSER (2000) understands social integration to mean both inclusion, i.e. multiple integration, and assimilation, i.e. simple integration (cf. Table 1). Assimilation means that immigrants adapt to the majority society, meaning that they assimilate to the status quo in relation to things like language, social contacts and their personal identification. For this form of integration, participation in the host society is of prime importance and ethnic origin declines in significance as the years go by.

In contrast, the "inclusion" type of integration focuses on an equivalence between people's background of origin and their present location and future prospects. Immigrants speak both languages, for example, have social networks in both directions and identify themselves both with the culture of origin and with the one into which they are growing. What is criticised in many cases is the tendency for ethnic communities to form which are socially excluded. This state of affairs, which is discussed in terms of a "parallel society", is labelled as separation in the model. The essential difference between inclusion and integration is therefore the degree to which the individual's characteristics and the ideas of the social majority are brought into alignment. What is decisive is whether or not a "strong" underlying assumption of normality is made. Social opening and integration have long been understood to mean that the assumptions about normality in organisations and institutions need not (or must not?) change, and that "what does not fit will be made to fit" by a process of assimilation and homogenisation. Since it has generally been concluded that this approach does not yield the desired results, the concept of inclusion has begun to garner attention. So inclusion always means – and indeed this is a key difference – that even ideas about normality must be reconfigured. That is easy enough to say, but harbours an enormous challenge. Otherness and diversity are not merely to be tolerated but to be recognised as integral components of the system. In view of the strongly normative and selective structures in the education system, this is a major challenge.

Structures of exclusion in the German education system

In the German education system there seems to be a strong impulse to preserve the system. Every change in structures has engendered differentiation rather than standardisation: there are now such multitudes of strengths at special schools, of vocational training courses (particularly in the transition system), of options for catching up on school-leaving certificates, of forms of higher education institutions and admission routes, of legal provisions and curricula, etc. that they virtually defy comprehension. By the same token, the logic of the financing is similarly diffuse. Expenditure on secondary level II in Germany is above the average for OECD countries, whereas compared with the OECD average, primary level (and elementary education) is distinctly underfinanced (cf. Table 2). This means that "overfinancing" is confined to the phases of education in which not all learners are able to benefit from the expenditure any longer.

Table 1 **Types of social integration of migrants**

		Social integration in ethnic community	
		Yes	No
Social integration in host society	Yes	**Inclusion** as multiple integration (plurale/multicultural society)	**Assimilation** as simple integration (homogenous society)
	No	**Separation** as social exclusion (parallel society)	**Marginalisierung** as multiple exclusion (isolation)

Source: Esser 2000, p. 287

Table 2 **Expenditures per pupil by educational phase** (in PPP US dollars) and deviation (in %)

	Primary phase		Secondary level I		Secondary level II (schools providing general education)		Higher education (excl. research)	
Germany	5,548		6,851		9,557		8,534	
OECD-average	6,741	+ 22 %	7,598	+ 11 %	8,746	- 8 %	8,970	+ 5 %
Sweden	8,338	+ 50 %	9,020	+ 32 %	9,247	- 3 %	9,402	+ 10 %

Data source: OECD 2010

Table 3 **Expenditures per pupil by school type at secondary level I** (in EUR)

Special school	Lower secondary	Grammar school (without sec. II)	Intermediate secondary
13,100	6,000	5,600	4,600

Data source: Statistisches Bundesamt 2010

Table 4 **Expenditures per pupil after leaving general education** (in EUR)

Prevocational training year	Full-time vocational school	University	University of applied sciences	Dual system (public spending only)
6,900	5,800	5,700	5,300	2,200

Data source: Autorengruppe Bildungsberichterstattung 2008

Table 5 **Inequality and normality as dominant educational ideas**

	Concrete diversity is dominant idea – assumption of inequality	Formal equality is dominant idea – assumption of normality
Form of integration	Inclusion of heterogeneity	Assimilation and homogenisation
Starting point	A person's concrete learning process, needs and abilities	Standardised, "normal" learning and development process subordinated to the curriculum
Mode of learning	Inductive – starting from the lifeworld, then abstracting	Deductive – starting from thematic areas
Theory of assistance	Treating the unequal as unequal and learning together	Learning at the same pace in homogenous teaching groups
Goal dimension	Output: What should everyone be able to do?	Input: What content should be taught to everyone?
Reaction to deficits in attainment	Change learning modes and teaching methods	Homogenisation through selection
Logic	Resource-orientation: discovering strengths	Deficit-orientation: looking for weaknesses
Sequence	First assist, then make demands	First make demands, then assist
Effect	Inclusion by treating as unequal	Exclusion of certain groups by treating as equal

Undertaking a differentiated analysis of expenditures for the different institution-types at secondary level I, it is noted that the expenditures for special and lower-secondary schools are highest (cf. Table 3). This fact is not in any reasonable proportion to the outcomes from these types of schools. And expenditures on the vocational training courses within the transition system are significantly higher (cf. Table 4). Annual per capita expenditure on the prevocational training year, which is mainly attended by school pupils who want to repeat their lower-secondary school-leaving certificate, exceeds the expenditure on all other German training courses. In summary it can be stated that the "theory of assistance" that is dominant in the education system consists in on-going selection and not in early help and prevention. The upshot is that deficits become chronically established and require financially burdensome compensation. Therefore what we can identify is not just underfinancing but particularly a structural misdirection of financing.

Inequality as a dominant educational idea

In a meritocratically legitimised education system, a person's attainment is relevant to the educational qualification obtained. Thought must be given, however, to what understanding of attainment the system is based upon, including the production and measurement of that attainment. The fundamental thought that all children and young people have equal or comparable outset chances and could be "differentiated" in a fair competition turns out, under empirical scrutiny, to be ideological. It is justifiable to pose the question as to why competition between children begins at a very early age but schools and teachers are almost entirely "sheltered" from competition. Repetition of classes, different school forms and even (numerical) grades are introduced very much later in inclusive and measurably successful education systems. Even people with physical or intellectual impairments do not receive any special treatment in special schools. In Finland, for example, schools and teachers take responsibility for all children's and young people's learning development, but also have a distinctly higher degree of autonomy in shaping the learning environment and the teaching on offer. In these countries, the competitive situation is displaced: from a competition among pupils to a (moderated) educational competition between teachers and/or schools. This compels cooperation, innovation and evaluation as well as an intensive engagement with the individual young person. In contrast, the existing structures in Germany encourage a mentality whereby the teacher's teaching is always right, and any deviations from expected attainment levels are put down to having the wrong pupils (cf. El-Mafaalani 2010).

The dominant educational idea of normality with regard to development, ability and achievement is replaced with one that recognises inequality, accepts it and transforms it into usable potential. The individual is credited with being able to develop, receives individual help and remains in a teaching group comprised of young people with different abilities, weaknesses and interests. In Table 5 these interrelationships are compared point by point with a series of (educational) implications. Key differences are whether the starting point of educational endeavour is the learning content, the curriculum and the expected attainment levels (i.e. the learning object and input), or whether the learners and learning itself (i.e. the learning subject and output) are central to such efforts. Of course, learner-oriented learning settings are already part of current practice in the existing system, but this can only take place on an ad hoc basis and within the restrictions of the school system. Meanwhile the school system is geared towards homogenisation and selection.

Inclusive pedagogy requires the right structures

Given that selection is and must remain a basic function of the education and training system, the question that needs to be addressed is whether selection represents the result of education processes or whether it is made an integral part of the education process from a very early stage. Too soon,

in Germany, learning is geared towards passing examinations and not, for example, towards solving stimulating problems, managing complex situations or developing self-esteem. Too soon, children learn to adjust to teachers instead of becoming proficient learners themselves.

Hence it is commonly complained that a school education relies on certain skills which learners cannot be expected to learn except at school (cf. Böttcher 2005). Another frequently overlooked danger of competence-orientation is a tendency to exclude people even more than was previously the case. If competences are understood as "abilities and skills that individuals possess or can acquire in order to solve particular problems along with the associated motivational, volitional and social dispositions and abilities to make successful and responsible use of problem-solving in variable situations" (cf. Weinert 2001, p. 27 f., own trans.), then precisely these dispositions and abilities ought to be fostered. In particular, the distribution of motivational, volitional and social competences is markedly unequal at the time of primary school entry. School confines itself largely to imparting cognitive skills, however.

The potential of vocational education consists precisely in another mode of access to the curriculum. Concrete practical situations, which are certainly relevant from a work-related if not a lifeworld perspective, are simulated and rehearsed systematically. So the vocational education system gives primacy to an inductive, practice-oriented learning design, which could in principle improve the participation of socially disadvantaged young people. However, the structures of vocational education are no less selective than in the education system as a whole. Here again, a tripartite division can be discerned: in 2008, some 48 per cent of young people were placed in the dual system, around 18 per cent in the full-time vocational school system, and 34 per cent in the transition system (Autorengruppe Bildungsberichterstattung 2010). And the "measures" to assist disadvantaged individuals in the vocational training system, which bring all the "school underachievers" back together as a group, are most likely to stigmatise these young people and reduce their labour market opportunities (cf. Bojanowski 2008).

Complex processes in simple structures

On overall consideration, there seems to be a particularly strong inclination in the German education system towards homogenisation, differentiation, ordering and norming. Born of this tendency, on the one hand over-complex, heavily differentiating and obviously inefficient institutional structures have developed, which lead on the other hand to under-complex, barely differentiating and ineffective individual teaching and learning processes. Yet precisely the opposite is important, from the viewpoint of an inclusive conception of education: on the process level, what is unequal must be treated as unequal; strengths and potentials must be maximised in a variety of ways; on the level of structures, all possibilities should be kept open (as long as possible) and all people treated equally. Complex processes in simple structures – how easy it sounds!

Unfortunately, large sections of the population are not in favour of any such opening up of structures. Too many privileges would be up for renegotiation (as the example of the failed school reform in Hamburg shows). Yet educational impoverishment and a welfare state cannot exist in parallel in the long term. Nor, in the long run, can proxy debates be conducted on demographic, migration and Hartz IV unemployment-benefit issues without turning the spotlight on the themes of education and educational justice.

In the meantime there are now also economic arguments in favour of social opening. And economic arguments have always been more effective than normative ones. It is no coincidence that normative and economic perspectives are pointing in the same direction – unusual though this is – but rather, an inevitable conclusion based on the realisation that the fundamental precondition for a functioning society is not the paternalism of the social state but people's own self-responsibility. And this responsibility has to be learnt! ■

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