

**Information Service
of the Federal Institute
for Vocational
Education and Training**
August 2007
W. Bertelsmann Verlag
ISSN 1615-4355

Contents

- **Projects on the Quality of vocational education and training**
- **"Blended Learning Car Mechatronic"**
- **Pathways into new technologies**
- **Dates**
- **New Literature**

■ **BIBB launches projects on the "Quality of vocational education and training"**

The quality of vocational education and training is of major importance for the economy and for society as a whole. For companies skilled personnel are a major contributory factor to safeguarding the future of locations and competitiveness. For individuals the quality of training is one of the decisive factors in their choice of career and their opportunities for vocational integration and development.

However, the quality requirements to be met by training are by no means rigid. They change in line with economic and social developments. At the present time, attention should be drawn to the following ones:

- the ongoing technological penetration of the world of work;
- the growing replacement of function-oriented organisational structures and work processes by process-oriented ones;
- the increasing differences between young people as to their educational profile and socio-cultural background and
- the increasing differentiation in the educational pathways, on the national and international levels, leading to a vocational qualification.

These developments are accompanied by changing quality requirements and expectations amongst the various groups involved in training. They make adjustments in qualification goals, strategic planning paths and the operational implementation of training necessary. These developments also highlight the complexity of training quality.

Against this backdrop BIBB is addressing two central aspects in two different projects:

"Quality assurance in company vocational training" examines

- the scale on which companies currently undertake quality assurance of training;
- the instruments and processes they use;
- the extent to which training-related quality assurance is steered by a quality system and
- the degree to which the quality assurance of training is integrated into the overall company quality policy.

Impressum

BIBBnews

Year 8, Issue 3/2007 August 2007
Published by
Federal Institute for Vocational Education and Training (BIBB)
D-53142 Bonn

Editorial team
Dr. Eckart Strohmaier and Edith Bellaire (editors-in-chief),
Katharina Faßbender (editorial assistant),
Erwin Barabosch, Dr. Monika Bethscheider,
Herold Gross, Katrin Gutschow
Tel.: 0049-228-107-1725
Fax: 0049-228-107-2967
Email: BIBBnews@bibb.de
Internet: <http://www.bibb.de>

Design
Hoch Drei GmbH, Berlin

Publishing house, sales
W. Bertelsmann Verlag GmbH & Co. KG
P.O. Box 10 06 33, 33506 Bielefeld
Tel.: 0049-521-9111 01-11,
Fax: 0049-521-9111 01-19
Email: service@wbv.de

The editorial team welcomes comments, feedback and suggestions on BIBBnews.

The programmes focus on the following four occupations or occupational groups:

a) **Production technologist:** The idea behind this (future) occupational profile is to train skilled workers in the fields of mechanical engineering and plant technology for the customised production of complex machinery and equipment, above all prototypes. Skilled workers must be capable of working with research and development engineers. They must master the information system used for this and must also be trained to handle setting up the machinery/equipment on the customer's premises as well as for sales. For this they need the manufacturing competences plus knowledge about natural scientific-technological basics, developer skills, information flow skills and the ability to respond to customer requirements. Co-operation skills play a key role. Taken together what emerges is a novel occupational profile with unusually complex requirements.

This raises questions like

- whether initial and further training should not be more closely interlinked;
- whether this type of skilled workers and their participation in the innovation process - in some cases they work on a peer level with engineers - touches on a more far-reaching need of small and mid-sized companies who are or who often strive to be world market leaders in product niches in the field of New Technologies. Preliminary studies show that companies of this kind wish to offer training but are convinced that there is no suitable training occupation to match their requirements. There's a call here for research and action.

b) **Microtechnologists** face similar demands. This occupation was set up only a few years ago for semi-conductor production and for research and development tasks. It was mainly large company interests that prompted this move. The profile of this occupation encompasses an unusually high proportion of natural scientific

and technological competences as well as "behavioural skills" which are of growing importance for New Technologies: e.g. behaviour in clean rooms. This occupation aims to combine four traditional profiles: the physics laboratory technician, the chemical laboratory technician, the precision optician and the precision machinist. It is hailed as the "occupation of the 21st century" by the mid-sized companies who "discovered" it.

Discussions currently focus on whether the basic structure of this occupational profile should be the model for other areas of technology and whether this occupation could perhaps be profiled as a "basic occupation" for several linked areas of technology, e.g. microsystems technology, opto-electronics, nanotechnology and medical device technology. What has been lacking up to now is an overview of the requirements of specialist workplaces in these technology areas.

c) These questions from the production area of New Technologies also prompt a question about changes in the profiles of training occupations **for the users of technology**, e.g. medical device technology.

d) Besides the occupations for the production and use of New Technologies, attention must also focus on the **occupations providing sourcing and innovation services**. This encompasses occupations in the areas of consulting and education, research and development as well as sales. These are qualifications in which specialist technological competences have to be linked to service skills.

The project is to look at the following research questions:

- How do the requirements to be met by skilled worker and upgrading functions change in conjunction with New Technologies?
- To what extent are skilled workers involved in technological progress? Is there a need for regulatory support for occupational development pathways into New Technologies?

- Is there no training in small and mid-sized companies because there are no suitable training offerings for these New Technologies?
- What requirements must be met by industrial-technical qualification profiles in the New Technologies, more particularly concerning the profile breadth and the relationship between theory and practice?
- What are the qualification requirements in innovation services for New Technologies: research and development, work preparation, sales, technology consultants, education service providers for skilled workers and master craftsmen?

Contacts:

Herbert Tutschner / tutschner@bibb.de

Bärbel Bertram / bertram@bibb.de

Dr. Ulrich Blötz / bloetz@bibb.de

Dates

**12–14 September:
5th BIBB Congress 2007, Düsseldorf
Vocational education and training
under (reform) pressure**

Whether it be the lack of training places, discussions regarding the modularisation of vocational training or the merging of occupations into 'occupational families', whether it be the issue of training place seekers who are waiting in a 'holding pattern' or the problems involved with training place applicants who could not be placed and are, therefore, carried over from the previous year into the next placement year, or the realignment that a European or national qualifications framework will bring, or the growing competition coming from university degrees such as the bachelor's degree: Germany's tried and tested vocational training system is currently coming under (reform) pressure on numerous fronts. In which direction should – in which direction will – vocational education and training in Germany develop? Meeting under the banner Vocational Education and Training as the Path of the Future: Mobilise potential, shape

change, the 5th BIBB Congress will provide answers to these diverse issues.

Eight forums and some 30 working groups will discuss the entire gamut of current VET issues. Please note: Forums 1–7 and their working groups will be conducted in German.

Simultaneous interpreting services will, however, be provided for Forum 8.

Forum 1:

Strategies to secure training, continuing training and occupational competence

Forum 2:

New structural concepts and innovative developments

Forum 3:

Quality in vocational education and training

Forum 4:

Lifelong vocational education and training

Forum 5:

Qualification perspectives for small and medium-sized companies

Forum 6:

Sustainable development in vocational education and training

Forum 7:

Changes in learning cultures

Forum 8:

Vocational education and training international: comparison, co-operation, marketing

The BIBB Congress is the largest vocational education and training congress in German-speaking Europe and will address both today's and tomorrow's challenges in the VET field. It will give all those involved in vocational education and training an opportunity for an intensive exchange of views and information on major VET themes and future issues. Together with its national and international partners, BIBB will offer a discussion platform with the aim of encouraging innovation in vocational education and training and its translation into day-to-day practice.

The 5th BIBB Congress will be a meeting place for all those in positions of responsibility in the vocational education and training field - for points of contact at companies, specialist associations, trade unions, schools, administrative bodies and training and research facilities.

BIBB and its team look forward to welcoming you to this Congress.

Registration:

<http://www2.bibb.de/tools/fachkongress2007/html/>

28–30 November:

Online Educa Berlin 2007

Online Educa Berlin 2007 is all about increasing your skills and knowledge in e-learning. You can:

- explore the latest developments,
- share experience,
- expand your network and knowledge.

Online Educa Berlin brings together the top professionals and experts in technology-supported learning and training of all sectors: corporate training, higher and professional education, compulsory education and lifelong learning.

Each year Online Educa Berlin is the opportunity for an exchange of current best practice, resources and research, as well as being the setting for the world's largest international gathering of e-learning practitioners, policy-makers, suppliers and stakeholders.

12–14 March 2008:

15th University Conference

Vocational Education and Training

at the Friedrich Alexander University Erlangen-Nuremberg. Topic: Quality in schools and companies: Research results and good practice.

New Literature

The BIBB Annual Report for 2006/2007

What research and work priorities did the Federal Institute for Vocational Education and Training ("BIBB") focus on during the last year? What were the results of its work, and what outlooks are emerging for the progressive development of initial and continuing vocational training in Germany?

BIBB has taken a new approach with its Annual Report for 2006/2007: In contrast to past reports, the new Annual Report does not list all the activities in detail that the Institute was involved in during the reporting period. Instead, it uses selected examples to illustrate important research, development and advisory activities that the Institute pursued during the year. The report's examination of thematic priorities also reflects the fundamental realignment of the Institute's work during the past two years.

72 pages

Order No. 09.127

Price: free of charge

Gisela Dybowski, Georg Hanf, Matthias Walter

BIBB International – Strategy paper on the internationalisation of German vocational education and training

The Federal Institute for Vocational Education and Training (BIBB) is a nationally and internationally recognized centre of excellence for research into and development of initial and continuing vocational education and training. The aims of its research, development and counselling work are to identify future tasks of vocational education and training, to promote innovation in national and international vocational education and training and to develop new, practice-oriented proposals for solving problems in vocational education and training.

20 pages

Order No: 09.132

Price: free of charge