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4th BIBB Congress 2002

Hypotheses and questions
regarding the eleven forums



Vocational training
for a Global Society

Perspectives
in the 21st century

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Vocational Training for a Global Society Perspectives in the 21st Century

FROM 23 TO 25 OCTOBER 2002, THE FEDERAL INSTITUTE FOR VOCATIONAL TRAINING IS HOLDING ITS 4TH LARGE CONGRESS UNDER THE TITLE "VOCATIONAL TRAINING FOR A GLOBAL SOCIETY – PERSPECTIVES IN THE 21ST CENTURY". THIS CONFERENCE, JUST LIKE THE PREVIOUS ONES IN 1988, 1992 AND 1996, WILL PROVIDE EVERYBODY INVOLVED IN VOCATIONAL EDUCATION AND TRAINING WITH THE OPPORTUNITY FOR INTENSIVE EXCHANGE OF INFORMATION AND EXPERIENCE ABOUT PERSPECTIVES AND POSSIBLE SOLUTIONS IN VOCATIONAL TRAINING. 11 FORUMS WITH A TOTAL OF 42 WORKING GROUPS WILL BE ORGANISED, FOCUSING ON THE DEMANDS, QUESTIONS AND CHALLENGES THAT THE GLOBALISED KNOWLEDGE AND SERVICE SOCIETY POSES. ON THE FOLLOWING PAGES THE EDITORS OF "BWP" (BERUFSBILDUNG IN WISSENSCHAFT UND PRAXIS — VOCATIONAL TRAINING IN RESEARCH AND PRACTICE) PRESENT THE CENTRAL THEORIES AND PROBLEMS DISCUSSED IN EACH FORUM.

THE EDITORS WISH THE CONGRESS GREAT SUCCESS.

Federal Institute for Vocational Training (BIBB)
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FORUM 1

THE CHANGING WORLD OF WORK IN TRANSFORMATION AND THE CONSEQUENCES FOR VOCATIONAL TRAINING

For some time, the changing world of work has been undergoing an extensive structural transformation process which has even picked up speed in the recent past. Changes in the world of work are manifold and not always uniform in different branches of industry and groups of employees. There is no doubt that vocational education and training has to adapt to the transformed world of work and develop concepts suitable for coping with structural transformation. The consequences resulting from the transformation of the world of work for vocational education and training are not always easy to assess, and the experts have quite conflicting views on them.

Forum 1 deals with fundamental aspects of the structural transformation in the working world, including its possible implications for vocational education and training as well as vocational training policy. In the plenary session of the forum, an outline of the central developments of changes in the working world will be presented and the ensuing challenges for vocational education and training policy will be discussed. These complexes will then be more closely examined in four working groups, under different perspectives and with different focal themes.

Working group 1.1 *The structural transformation of the world of work as reflected in social research* presents important findings of social research studies regarding the transformation in the world of work.

In working group 1.2 *Early identification of skills developments* there will be reports on new lines of research dealing with identifying changes in skills needs earlier than before and with making the resulting insights usable as soon as possible for the modernisation of existing and the creation of new training regulations.

Working group 1.3 *The costs and benefits of vocational training* introduces current results of economics of education research about initial vocational training and continuing training. The first topic of discussion is the question whether, from the companies' viewpoint, the costs-to-benefits ratio in vocational education and training is changing due to structural transformation, thereby also changing the prerequisites for companies to be strongly committed to vocational training. The second topic is financing concepts suitable for improving the framework conditions for lifelong learning.

Working group 1.4 *Public funding for vocational training* throws light on the changing demands on public funding of vocational education and training resulting from the situation on the job market for training positions, especially in former East Germany.

The following general statements characterise important developments which should be discussed in this forum.

The structural transformation leads to considerable adjustment pressure in large areas of employment and to fundamental changes in the skills levels demanded; the chances of employment are jeopardised for some groups of employees.

The pressure of competition among enterprises has clearly increased. The process of rationalisation is accelerating, especially owing to the possibilities of micro processor technology. This has led to a massive reduction in production jobs, mainly in large-sized industrial firms. This affects not only semi-skilled and unskilled workers; jobs have also been cut increasingly on the skilled worker and middle management levels. Those who are not capable of keeping up with the more demanding job positions resulting from computer technology, changed equipment and product range and the organisational changes are among the losers in this transformation process. This has consequences for the employment prospects even of people trained in traditional skilled worker professions.

Especially older people are still being driven out of the employment process. They are regarded as not very flexible and unwilling to meet the changed demands in terms of continuing education and training or to actively support the transformation process. The companies will have to change their views in this regard since young professionals will be in short supply in the foreseeable future, in particular because of demographic developments. Even older people do not face irreconcilable barriers when trying to adapt to new challenges, as has been shown during the rapid spreading of data processing especially in the field of object-related services.

The importance of the service sector in our society has been on the increase and will continue to increase. The leeway for rationalisation in banks and insurance companies and in commerce, however, is far from being exhausted. The currently unemployed should be viewed as the result of a selection process where personality traits often play a larger role than formal levels of educational attainment.

Early identification of skills developments can considerably improve the coordination between the systems of vocational education and training and of employment.

Early identification of skills developments means that competences relevant to the job market should be observed and ascertained on time and permanently. It should not be viewed as a predictive instrument for very long-term developments. The growing spread of information technology in particular, as well as the complex organisational transformations in the companies, imply permanent changes in almost all occupations and fields of work. Determining skills developments permits the development of concepts for adapting skills levels, improving the entry into permanent jobs and guaranteeing the ability to be employed in the long term.

A wide spectrum of different research approaches has to be used to do justice to the complexity of the investigation topic 'skills development'.

In-company training has adapted successfully to new requirements in recent years, and the benefits of training for the companies are still very high.

In the 1990s, in-company training has reacted to the growing pressure of competition and the necessity of cost saving measures with more economical organisation and execution. Wherever possible, trainees have been involved more than before in the creation of economic performance. Learning processes have been more intensively aligned with job requirements.

The training costs levels differ widely in individual occupations and under different company frameworks. The ratio of decision-relevant costs to training benefits is already balanced, at least partially, in the duration of the training. Furthermore there are considerable benefits from training as an instrument for the long-term recruitment of skilled workers. All in all, in-company training is still held in high esteem in the companies.

The situation on the job market for training positions will continue to require public assistance and funding in the near future – especially in the new federal Lands.

Government promotion of vocational education and training has focused in the past mainly on the creation of new training positions, the promotion of certain target groups and on structurally securing and developing the quality of training. Depending on the preconditions of this promotion it also causes a number of unwanted side effects.

Financial incentives and aid measures contribute to a short-term increase in in-company training positions. In the field of vocational education and training management they could continue to be an important means of supporting training, especially in small businesses.

Fully-financed training places, whether in models of external, company- and business-linked or cooperative training, are often considered as inferior to in-company training, which often leads to unfavourable basic conditions. The biased selection of participants based on this can lead to the later stigmatisation of persons successfully completing these training measures on the job market.

The demographic development and the insufficient supply of vocational education and training, particularly in East Germany, have made these measures an important part of the system of vocational education and training, despite the disadvantageous effects. The performance of the system would suffer significantly without them.

BIBB CONTACTS: KLAUS BERGER, DR. PETER BOTT, DR. WILFRIED BRÜGGEMANN, ROLF JANSEN,
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FORUM 2

INTERNATIONALISATION OF VOCATIONAL TRAINING – EXPERIENCE AND STRATEGIES

The globalisation of the economy and the accelerated process of European integration also affects the German vocational education and training system. In recent years a number of industrialised countries have accelerated the internationalisation of vocational education and training. At the same time the cooperation in the field of vocational education and training within the EU has gained a new dynamism. The increasing international competition and new possibilities to cooperate across borders offer challenges and opportunities.

The German system of vocational education and training has opened up internationally as well during the last few years.

In forum 2 the BIBB wants to contribute to this process of internationalisation.

Internationalisation as a vocational training policy strategy in selected countries

Individual countries have reacted to globalisation with national strategies of internationalisation. Despite such strategies, national systems of vocational education and training have so far – due to their deep roots in the social and political systems of the individual countries – lost almost none of their unique features. Internationalisation means de-nationalisation of the systems of vocational education and training in the sense of opening them up. In the long term they can only profit from their internationalisation, if they manage to retain the qualities inherent in the essence of the individual system.

The globalisation of the economy sets the pace: Around the world, information and communications technologies bring production and exchange processes closer together in space and time and accelerate the capital flows; the intensified competition stimulates mergers of companies, business failures and business relocations; this leads to a new international division of labour and increased mobility of the workforce. The political answer to these processes is strategies of internationalisation of social subsystems – including vocational education and training.

In the 1990s a number of countries have started to align their systems of vocational education and training internationally. Especially small countries with a strong export orientation like the Netherlands

and Denmark, but also Australia, have made the internationalisation of their vocational education and training a national strategy. Due to their legislative regulations and other instruments of control and organisation they have a certain lead over Germany in the internationalisation of their vocational education and training systems.

"Internationalisation of vocational education and training" is based on varying political ideals in the different countries: "World-wide marketing of education", "Making the individual employee fit for global economy", "Catching up with the European Union", "Acquiring suitable skilled workers for companies acting internationally".

Internationalisation strategy and vocational training policy initiatives of the EU

European cooperation in the field of education has certainly gained new dynamism since the Lisbon European Council. At the core of this dynamism lies the insight that economic prosperity and social cohesion in the European Union cannot be achieved without substantial contributions by the systems of education and continuing training. Now that the knowledge society has been postulated, practical consequences ensue.

The goal of the initiatives of the European Commission and the Council is better political coordination between the member states and the EU. They push the fundamental education policy debates in the member states ahead, debates originating for example in the memorandum on lifelong learning. The European debates will not lead to immediate changes in our education system or the structure of vocational education and training in the foreseeable future. There will also be no direct interference of European politics in our system of vocational education and training (the regulations of the Amsterdam Treaty prohibit this). It is the member states themselves that are in fact the most important players in the European process of discussion. They are already actively developing concepts of lifelong learning and initiating national promotion programmes.

Cooperative training under varying system conditions

To take advantage of the internal and external opportunities offered by cooperative training it is necessary to reach a qualification standard that is internationally comparable. German vocational education and training policy must keep the German model internationally adaptable and must act on the global education market itself.

Cooperative training is characterised by the joint responsibility of state and economy and by the cooperation of different learning places. Other countries are increasingly showing an interest in such a model. The reason: The German type of "dual system" is respected around the world as an efficient basic model of vocational education and training. Therefore it provides a promising starting point for the education marketing that has been propagated for vocational education and training as well.

Internationally active German enterprises are trying to elevate their local skilled workforce and managers to an internationally comparable competence level, in the face of their global business goals. For this reason they are currently developing training models for their sites abroad which are oriented on the German dual system. In this area opportunities are emerging for cooperation on the

basis of company-specific business interests and vocational education and training policy interests of the individual country.

In this forum Global Players and an internationally active chamber of crafts will not only report on elements of cooperative training "made in Germany" but at the same time critically evaluate them. This German view and evaluation will be mirrored by the descriptions provided by foreign training providers who also employ cooperative elements in their vocational education and training.

International qualifications, (language) skills and occupational profiles

The development of European occupational profiles and images as a reaction to the globalisation and internationalisation of the economy has been frequently demanded by companies and educational institutions. The dominating approaches to this problem are sectoral and trade-specific ones. European core curricula which would be adapted and implemented according to national requirements could be a promising approach, but it is one which needs the active support of the social partners.

One of the goals of the Bruges initiative is to advance and lastingly consolidate the European dimension of vocational education and training. Especially the current call for proposals in the Leonardo da Vinci programme for the years 2003/2004 with its priority "Valuing Learning" has emphasised the promotion of transparency, comparability and professional mobility.

In view of intensified EU cooperation in vocational education and training there is a need for action especially with regard to the transnational recognition of vocational qualifications, the recognition of qualifications acquired abroad and the transparency of vocational qualifications and skills.

The European vocational education and training programme Leonardo da Vinci (Phase II) as a "testing-ground for innovation and experimentation in education" defines framework conditions under which such projects and approaches can be developed and tested in pilot projects, projects on language competence and transnational networks.

Information and communications technologies in vocational learning

It can be observed that the opportunities offered by the new media to take account of the complexity of learning processes are often wasted in practice. However, on the way to a knowledge society we need convincing blended learning concepts and high-quality content which focuses on the learner/user.

The innovations based on information and communications technologies did not only change manufacturing, working and business processes, they also require new occupational profiles. At the same time IC technologies are increasingly used as an education medium (e-learning, education portals, blended learning).

The European educational discussion has attached strategic importance to IT knowledge for some time now. The new EU Leonardo da Vinci programme on vocational education and training underlines

the significance of IT skills as part of the new basic skills, which include foreign language competences, entrepreneurial spirit, technological culture and key qualifications.

People involved in vocational education and training can use the Leonardo programme as an innovative instrument for developing and testing adequate practical models.

Internationalisation of German vocational training – a challenge for politics and practice

The internationalisation of German vocational education and training will be decisively judged by three aspects: the promotion of international vocational competence, the international shaping of the system and its international readability.

This international orientation places higher demands on international knowledge and intercultural skills, on international accessibility and comparability and on the transparency of contents and structures of the vocational education and training system.

Which of the initiatives on the internationalisation of vocational education and training will receive priority should be discussed in a dialogue between politics and practice.

BIBB CONTACTS: DR. GISELA DYBOWSKI; KLAUS FAHLE; DR. GEORG HANF;
HERBERT TUTSCHNER; DR. MATTHIAS WALTER



FORUM 3

LIFELONG LEARNING – THE IMPORTANCE OF ON-THE-JOB-LEARNING FOR SKILLS DEVELOPMENT

Current aspects of sustained competence development which are relevant to research and practice and which focus on the professional ability to act will be discussed with a view on the structural transformation. Proven examples from the industrial, crafts and service sectors will show paths to promoting change competence as well as independent process-oriented learning and working. Approaches and instruments for the support of on-the-job learning and lifelong learning will be introduced, and it will also be discussed how informally acquired competences can be assessed, documented and recognised.

Learning from work – the new middle management

"Learning from work" means the systematic linking of informally acquired skills with institutionalised continuing training in formal courses of training. Both knowledge from experience gathered on-the-job and social competences acquired out-of-company will be considered.

The integral, action-oriented approach to qualification is best suited as didactic concept for "Learning from work". In this approach, tasks dealing with company situations are the focus of the teaching, learning and testing concept. The continuing training leading to qualification as metal industry master craftsman is now considered a successful example for the country-wide implementation of an action-oriented qualification.

The orientation on application in company practice has a very decisive influence on the didactic teaching/learning concept even in dual courses of study. Persons who have successfully completed a dual course of study at a post-secondary technical college have high action expertise which they bring to bear in the company work process. There are several models currently being tried out in Germany, all of them having the goal of linking theory and practice consistently with each other. However, it is also clear that such processes of teaching, learning and testing must have structures and requirements that are radically different from traditional concepts of continuing education and training. The implementation of this innovative approach is made especially complicated by the fact that there are so far no sufficiently methodical procedures of assessing experiences and making them systematically exploitable. In addition it is necessary that everyone involved, for example responsible

bodies, companies, participants, teachers, examiners and media experts, cooperate closely and in a binding way, so that the action-oriented approach is constantly optimised.

How can learning concepts support transformation processes in small and medium-sized enterprises?

Staff members in small and medium-sized enterprises (SMEs) are required to react with suitable qualifications to the high transformation pressure exerted by economy, technology and organisation. "On-the-job learning" as a learning concept is particularly well suited to SMEs because of their specific basic conditions, for example the higher complexity of the work tasks and the currently not very specialised qualification concepts. The development and implementation of such learning concepts however is a continuing high challenge to the willingness to learn and the innovative potential of the employees and managers of SMEs.

"On-the-job learning" as well as self-regulated learning are approaches which are gaining in importance and are especially suitable for SMEs. As a precondition for the new approaches, SMEs have to create suitable framework conditions, supported by education providers. The ability and willingness of the employees and managers to react to changes with the targeted acquisition of skills (change competence) has to be mobilised in particular. Teaching and learning methods as well as learning places are changing in this setting: Employees of SMEs have to be offered appropriate rooms for experience in vocational education and training and in the work process to enable them to acquire change competence. It is best acquired within the work situation, but this requires an open company culture which also offers processes of reflection and transfer.

Skills development in modern work organisations – examples from pilot projects

Competence-oriented approaches to on-the-job education require a close link with extended approaches to personnel development. They are interrelated with the development of whole organisations in a complex way.

Future-oriented development of competences in modern forms of work and organisation requires the interaction of individual, social and organisational learning and development processes. Once such networked competence development that starts on several levels is established, chances will grow that subjective perspectives and business innovations can be better co-ordinated in learning organisations. Experience-based learning in the work and business process is of increased importance in this scenario.

Results and experiences from tested approaches will be exemplified in the light of the current pilot project priorities "Experience-based learning and working" (6 projects), "Process-oriented initial vocational training and continuing training" (8 projects) and "Vocational education and training in learning organisations" (17 projects). The goal is to also generalise and reflect the interconnections between the three topic areas.

Relevant questions in this context are:

- What does experience-based and process-oriented learning and working mean?

- Which competences are of special importance for making personnel qualified to collaborate in processes of organisational development?
- How can employees be supported not only in regulating their work and their learning process as far as possible by themselves but also and at the same time in the continuous further development of the organisational, structural and cultural framework conditions?
- What is the relation between the professional competences connected to these concepts of learning and organisation?

Facets of expertise and how to develop it

A large number of approaches to supporting competence development are being discussed and practically tested. Critical reflection on these diverse activities, however, points to a number of gaps in our knowledge which show the need for further research:

- The competences that should be developed are not clearly defined at all; it is often not clear what exactly this expertise is and what it consists of. Structural analyses of competence would be important.
If we assume that in a development process advances are made, that something new results which is not just an extension or enrichment of what already exists, then the question arises on which hierarchical levels competences are developed and what exactly the qualitative changes at each individual competence level are.
- It still has not been sufficiently investigated whether (and under what circumstances) the experience potentialities of professional work advance or obstruct the higher development of competences.
- Reflection is certainly of fundamental importance for the utility of on-the-job learning. Reflexivity means the conscious, critical and responsible evaluation and assessment of work processes, procedures and alternative actions within the context of personal experience, norms and values.
- An exciting question to ask is which characteristics of competence support the development of high competence levels and ensure a sustained dynamism of competence development: Certain forms of self-organisation? A positive emotional relationship to the topic area? A positive sense of self-esteem of the person acting? Strong will, or reflexivity, or a high intelligence level? Or is competence development primarily stimulated by certain key terms, maxims for action or theories?

Assessment and validation of skills

Informally acquired competences – both on-the-job and outside of gainful employment – are an enormous potential which needs to be activated if we want to cope with structural transformation in society and economy. A necessary precondition for using this potential, for digging up this "treasure in people's heads", is to assess and document the informally acquired competences. So far only rudimentary methodical concepts exist for this task.

The necessity and support for lifelong learning is acquiring increasing importance. This is connected to a widening of our focus and to establishing new emphases: Informal learning is now understood as

an integral part of learning processes, and this raises the question of how to connect competences acquired in formal areas of learning to informally acquired ones.

Such assessment and validation systems, including those implemented on the European level, will be presented and discussed within the framework of the working group mentioned above. Goals, standards of reference and possibly existing authorisations connected with the assessment and documentation of informally acquired, professionally relevant competences will be the topic of discussion, as well as questions of acceptance and practicability.

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FORUM 4

"E-LEARNING" – CLAIM AND REALITY

E-learning is a new field in education technology which replaces previous trends like computer-based training (CBT), multimedia and telelearning. The term "e-learning" initially created euphoria which a number of market studies try to maintain with projections and chains of reasoning.

The disillusionment that can now be observed should not lead us to turn away from the topic. Rather it is time for a factual debate about the finer aspects, with the objective of a more discriminating view of e-learning within the context of education technology research: its place, its conceptual foundations, and how it can be tested in educational practice. For this reason we are currently in the experimental stage. Many e-learning products are still oriented towards the technological aspects and not yet sufficiently adapted to the didactic requirements. The following theses should start and further stimulate the specialist discussion:

At the lowest level, e-learning means supporting learning processes with the aid of electronic media.

E-learning-assisted learning environments can assist in information retrieval, support the communication between learners and be the carrier of didactically structured learning modules. E-learning is not a learning concept, not a learning strategy and not a learning method. It just supports various learning concepts, strategies and methods. There are many possibilities for the didactic implementation of e-learning-assisted learning.

Two examples: Using online communities, informal learning processes could possibly be created within a professional context as a just in time reaction to emerging skills needs. These learning processes would originate from the learner's own initiative and would be planned and carried out by the learner. But e-learning can also mean computer-assisted individual execution of a learning programme, for example acquisition of a foreign language, within the context of an organised training measure. In this case it would be part of a complex learning context and would be didactically and methodically planned out externally.

Educational technology research has to categorise e-learning more discriminately, support it conceptually and further test it in educational practice.

E-learning is the result of a technology-driven development. The future application of e-learning, however, will be determined by media-didactic, organisational and financial criteria. It is necessary to create terminology and application-related definitions of e-learning to assist in its planning, introduction, use and assessment. In certain sections standardisation will be advantageous, for example as a prerequisite for quality assurance.

E-learning offers new possibilities for shaping action-oriented and task-oriented learning programmes.

The computer is a means of work and a means of information, communication and presentation at the same time. Different stages of the action-oriented learning process can be integrated into a single medium. The computer can aid in simulating technical and business processes and therefore create very realistic learning situations and tasks. Information retrieval is made easier by fast access to a wide spectrum of maintained and open knowledge pools. The varied ways of interaction in learning software, including hypermedia structures, can be used to assign the learner an active role in the learning process. The joint preparation, presentation and reflection of the work results by the participants is made easier.

Lack of user acceptance of e-learning is not the user's fault.

Much more often it is caused by insufficient consideration of framework conditions and learning qualifications even at the planning stages of e-learning, by overestimated learning potentialities and by the insufficient quality of e-learning applications. It is therefore necessary to identify success factors more precisely and to deduce consequences for improving implementation strategies and introduction methods.

Learning success in e-learning depends decisively on the professionalism of the teaching personnel.

The right planning and organisational embedding as well as the targeted instruction and intensive accompaniment of the learning process by qualified teaching personnel is of decisive importance. The quality of e-learning is certainly determined by the underlying didactic concept and the way it is planned and implemented by the teaching personnel, even if they perhaps do not interact directly with the learner during the teaching/learning process. The assignment and division of tasks between teachers, trainers, teletutors, learning consultants and personnel developers is currently not sufficiently optimised. Existing experience is now being evaluated. It is necessary to draw comparisons between organisational models occurring in practice and to identify best practice examples. At the implementation stage, the specialised and didactic as well as social and communicative skills of the teletutors are decisive for learning success.

E-learning is a precondition for lifelong, self-regulated learning.

E-learning offers greater flexibility with regard to time, place and speed of learning than traditional circumstances of learning. It is therefore better suited to the increasing importance of lifelong learning. It supports self-regulated, application-oriented and co-operative learning, especially in continuing education and training. E-learning requires a high degree of self-organisation and motivation in learners but also offers learners a high degree of freedom during the learning process. For the companies this creates the challenge of making the skills acquired by the employees in the context of informal and non-formal learning transparent, and of using those skills. To guarantee this process, organised and non-organised forms of learning have to be linked. E-learning thereby attains a bridging function in connection with knowledge management and supports the creation of learning organisations.

Distance learning and e-learning can profit from each other in many ways.

Distance learning providers integrate new learning technologies (CBT, WBT, online seminars, chats, message boards etc.) into their education offerings with varied intensity and with different concepts. These technologies decrease the distance between teacher and learner and between the learners themselves. They open up additional possibilities of individual and self-regulated knowledge acquisition. At the same time it is possible to apply the experience gathered in traditional distance learning over several decades to e-learning.

New inter-company forms of organisation and cooperation are necessary for using e-learning in small and medium-sized enterprises (SMEs).

The relative personnel, time and cost outlay for using e-learning in SMEs is much higher than in large enterprises. Additional competitive disadvantages for the SMEs could be the result. New inter-company forms of cooperation and organisation are necessary if e-learning is to be used in SMEs, for example online communities or virtual centres of excellence with a regional or sectoral focus. In part these can be built upon existing networks, training cooperation schemes and inter-company training centres.

E-learning supports the globalisation and internationalisation of vocational education and training.

Today the Internet is widely accessible and is used for accessing the world-wide supply of information. It is becoming the foundation of a globalisation of information, a universal, globally accessible library. In this context (internationally operating) education providers who influence the organisation of initial vocational training and continuing training programmes are gaining influence. They can set standards in the certification of relevant qualifications which will influence the education landscape and national learning cultures in the long term. How far this development of a global education market has already progressed can be seen in the discussions within the World Trade Organisation (WTO) dealing with whether education is one of the services for which conditions of market access should be relaxed. The topic is also of outstanding importance to international

cooperation in vocational education and training because access to the new media and their utilisation is indispensable for the competitiveness of national education systems.

Internationally recognised standards allow for quality management and transparency of e-learning offers.

Users (individuals, companies, institutions of continuing education and training) are often made insecure by the currently existing diversity of different platforms provided. The interoperability of e-learning offers is becoming an essential sign of quality which customers and producers should take into consideration. Comparisons between different learning environments are made possible and dependence on a single content provider can be stopped. The foundations for this will be laid by the current drafting of internationally accepted open standards, for example regarding system architecture, terminology, user interfaces, data structures and data exchange. The advantages of open standards are obvious: They allow the reuse of digital learning units once they have been (expensively) produced, their continuous and fast update and their combination in constantly new applications. This leads to more transparency for the users and producers of e-learning content.

BIBB CONTACTS: MICHAEL HÄRTEL, ERWIN MAIER, DR. GERT ZINKE



FORUM 5

THE FUTURE OF EXAMINATIONS: RADICAL CHANGES IN THE EXAMINATION SYSTEM HAVE JUST BEGUN

During the past five years progress has been made in vocational examinations. Innovations in examination forms (and now, at least partially, also in examination structures) have almost exhausted the possibilities of the traditional system. The reforms introduced so far are therefore not the conclusion of a reform process that was long overdue but the beginning of fundamental and radical changes.

From control of the educational status to the account system. The intermediate examination is undergoing a functional transformation.

When the intermediate examination was established as a control of the educational status in the Vocational Education and Training Act of 1969, an important goal of the reform discussion at the time was honoured. During vocational education, trainees as well as trainers should be given the opportunity to recognise and rectify individual performance weaknesses and training deficits of the company in time by way of industry-wide control of the learning success. The intermediate examination was intentionally detached from the pressure of an examination leading to a certificate: The result of the intermediate examination does not influence the grade in the final examination and has no consequences for the continuation of the training agreement. However, this pedagogical innovation was never fully accepted in training practice. In some training sectors there was early criticism that "this examination does not count" and it was demanded that the result should influence the final examination. Today almost all training sectors plead for the consideration of the result of the intermediate exam in the final examination grade or for an influence of the performance in the intermediate exam on the final examination. This change in the function of the intermediate examination would also be the starting point for a systematic development in the examination procedures: The autonomy of intermediate and final examinations as well as their functional differentiation would be abolished and the final examination would receive a new structure. The examination system, which in the dual system was traditionally oriented towards independent

certifications at certain stages, would evolve into an account system with (currently) two components: intermediate examination and final examination (or examination at the end of the apprenticeship).¹

One possible transition to the account system is provided by the "stretched out final examination model". The time-limited trial regulations currently being issued or planned for a number of professions will over the next few years result in initial experiences with the transformation of the intermediate examination and a restructured final examination. It remains to be discussed whether the original pedagogic intention for the intermediate examination has to be completely given up in the course of the system development or whether it should be realised through other instruments.

The decision about success or failure in the journeyman examinations is already prepared from the beginning of training. Only a bundle of measures can minimise examination failures.

It is not just the examination and its conditions that decide about the examination success. The course is already set when vocational training starts, regardless of performance in school. A very decisive influence on examination success is exerted by the three parties involved in vocational training: company, vocational school, trainees. They have to fulfil the training tasks assigned to them in order to ensure success in the examination. First and foremost this means for

- the company: to ensure that a wide spectrum of training contents is imparted using personally and professionally qualified trainers and according to the training plan,
- the vocational school: to impart the subject matter prescribed in the curriculum using personally and professionally qualified teachers and to connect it to professional practice,
- the trainees: to be interested in and committed to their vocational training.

Because of the multitude of factors which can influence examination success (and thereby also the success of training), only a bundle of measures can contribute to minimising failure rates in the final examinations. It is still unclear and will be discussed in detail in the working group "Preventing examination failure" which measures lead to the improvement of examination results and how they can be implemented.

The new task "Assessment of soft skills and experience knowledge" cannot be fulfilled using the traditional examination system.

For some time it has been agreed that the ability to act competently in a professional position cannot be evaluated only by assessing professional knowledge and skills. Professional qualifications as described, for example, in training regulations and certified in the final examination only make certain facets of professional competence visible. In daily professional practice the "abilities of a professional" form an amalgamation of professional competences, emotional intelligence and (individual) empirical

¹ An account system should not be confused with a credit system. A credit system is a specific system, mainly found at universities, where points are awarded for individual finished educational units. The points can be accredited in different courses of study in a flexible manner. The account system, on the other hand, is purely a system where both examinations influence the result of the final examination after training to a specified extent.

knowledge in a way unique to each person. Consultation skills of retail and insurance salespersons are an example of such a complex mixture.

There are now many different training concepts available which further develop these not completely analysable and describable skills for professional action. But when professional competence is certified, the "soft skills and experience knowledge" are not validated. This "hidden side of professional action" is assessed implicitly at the most and even then only very partially and by chance. This is not only the case in initial vocational education and training. It also applies to formalised continuing education and training. But how can these rather vague, not clearly measurable facets of acting competently be assessed, validated and certified? Is that possible at all? Does one want it at all? The traditional examination system, to say the least, is not up to this task. In training practice early concepts have been developed and trial runs have been conducted. But the consequences for the development of the system are still unclear. In which way, with which methods and to which ends they should be or have to be integrated in the testing system is a question that needs to be rethought and clarified.

Customer orientation must become a form-shaping principle in more and more commercial examinations.

For many new and modernised commercial and administrative occupations models of testing have been chosen which include simulated talks with customers. This is supposed to allow the assessment of customer orientation, i.e. communicative and social skills in connection with professional competence.

But simulated conversations where one of the testers assumes the position of the customer can only reflect customer orientation as a part of professional acting ability in a limited way:

- examiners cannot realistically assume the role, for example, of an uninformed customer in the examination situation,
- examiners have specialised knowledge and can intervene as support if necessary ("ignorant" customers often cannot do this),
- examiners have no personal need for advice in this situation (but customers do),
- the emotional state of the customer is not relevant in the examination (but is relevant in practice),
- dissatisfied customers go to the competition (but the examiners stay).

Extensive integration of 'customer orientation' therefore requires different examination concepts. It remains to be clarified whether this can be achieved within the existing examination system and how examinations have to be designed in the future to remove the "examiner effect".

Authenticity becomes the overall concept for examinations in commercial and technical occupations.

The process of modernising the final examinations in vocational training in the industrial and technical fields has moved from the principle of practical orientation via the concept of action orientation to the new model of authenticity. While practical orientation is targeted at imitating professional work requirements and action orientation is based on the model of complete professional working

procedures, authenticity now makes real work processes in a real working environment the subject matter of the examination.

Central characteristics of this new model are:

- *Extension of the concept of action orientation*
Actions are put – process orientated – in the context of the procedures that precede and follow them. Only this allows full testing of integrated thinking and acting in the company context.
- *Moving the examination into the company*
Authentic examinations do not reflect the reality of the company. They are a part of that reality.
- *Usability of the examination result*
An order received by the company (from a customer) is used for the examination.

The success of authentic examinations – as a specific class of examination forms – is only possible if certain conditions are met. So far, attempts to create these conditions have been made within the existing examination system and with the means it supplies. But it is already becoming apparent that this can only constitute an intermediate solution. Aspects of practical relevance, like 'working on an order in a team' and 'customer satisfaction', are currently not taken into account. Widespread application of authentic examinations will therefore probably lead to incentives for systemic changes.

BIBB CONTACTS: DR. DAGMAR LENNARTZ, MARGIT EBBINGHAUS



FORUM 6

INDUSTRIAL AND TECHNICAL OCCUPATIONS IN TRANSFORMATION – NEW PROFILES AND PRINCIPLES

The globalisation of business and life and also (connected to it) the far-reaching transformations in the economy, technology and society force us to adjust the dual system of vocational education and training, including in particular the industrial and technical field. The speed and severity of these changes make it necessary for people employed in this work process to be flexible and mobile at all levels of work and life. Some renowned experts, however, view this as a contradiction to the occupation concept of vocational training prescribed in Germany and recently again confirmed by the "Bündnis für Arbeit" (alliance for jobs).

Nevertheless the occupation concept should not be called into question, since it promotes identity development and also functions as a social safety net on the job market, but we still have to find ways of harmonising these seemingly contradictory aspects with each other. Forum 6 therefore attempts to create a *vocational education and training policy synthesis* between

- adherence to the occupation concept on the one hand and
- the concurrent overcoming of the strict boundaries between occupations on the other hand, which would allow higher flexibility and mobility at the second stage and create the conditions for more and faster updating of the skills required in the work process.

The following general theses deal with the necessary transformation process in dual training in the industrial and technical sector:

The increased requirements of skilled work can only be met if skills transcending occupations and occupational fields are imparted more than before in vocational training.

Some of these complementary skills are quality management (quality assurance and control), product and process optimisation, product assurance (for example service, maintenance, repair), customer orientation (for example organisation, planning and preparation of order completion) as well as the imparting of core skills in the widest sense (for example, problem solving competence, ability to work in a team, responsible operational acting, knowledge of foreign languages and intercultural competence). In this context it is important to employ process-oriented forms of training, since transfer thinking ability and ability to think and act in networked systems is expected of a skilled worker.

These increased demands have already been taken into account in current restructuring plans for industrial and technical occupations, as can be seen for example in the industrial metalworking professions which are being reorganised at the moment. The social partners have agreed to adhere to the bundling of occupation-oriented professional, social, organisational and methodical skills into integrated occupations (= occupation concept) without any changes and to design the bundle of skills in such a way that the mobility between occupations, companies, industry branches and sectors of the economy is simplified and encouraged. Within this context, vocational training should enable trainees to practise the profession independently and also in self-organised and functionally integrated teams.

Integration of skills and knowledge transcending occupations and occupational fields into vocational education and training is already a reality in many professions. The following points are particularly topical:

- a) the imparting of electrical engineering skills,
- b) the consideration of sustained, future-compatible action and
- c) the imparting of international professional action competence

The examples mentioned above will be discussed in the plenum of the forum.

Regarding a) In many industrial and technical occupations *work on electric (electronic) parts and systems* as well as repairs and control of highly modern plant and machines is increasingly required. Such occupation-transcending skills are for this reason nowadays directly included in occupational training profiles. However, the extent of this inclusion differs from occupation to occupation, depending on the requirements of the profession. In vocational education and training for the occupation of chemical/pharmaceutical laboratory assistant, for example, electrical engineering skills and knowledge are imparted in the context of an optional qualification unit, "Electrical engineering", with the goal of preparing the trainees for later continuing training to become an "Electrical specialist for defined activities". The occupation of mechatronics technician, on the other hand, already implicitly includes the qualification as electrical specialist for a limited area of responsibility or for defined activities when the vocational training is finished, while qualified water supply technicians and wastewater technicians are only trained as "persons qualified for electrical engineering".

Regarding b) Environmental protection, unlike electrical engineering, is already an integral part of vocational training for **all** recognised professions. This was introduced when the social partners and departments agreed on a number of general standard items in vocational education and training back in 1997. In some professions, however, it is not sufficient that qualified employees exclusively act according to regulations and instructions. Active thinking and an *eye to sustainability* ("*responsible care*") is required there, either based on inner convictions or at least on acceptance of the necessity. Imparting social skills and the ability to work in a team should therefore be a particular focus in all courses of training. With the reorganisation of the chemical professions this extended goal was implemented in practice by giving much more room to the topic of sustainability as an integrative training content over the complete duration of training.

Regarding c) As a result of the international division of labour (globalisation), the consolidation of "flat hierarchies" and the spreading of "cross-border" information and communications technologies, employees are directly confronted with international requirements. Internationalisation, after having arrived at the offices, has now reached the workshop as well. Especially in small and medium-sized businesses this increasingly affects the qualified employees with a finished vocational education. For this reason, extensive "*international professional competence to act*" has to be imparted already during vocational training. This includes in particular

- *Foreign language competence*, i.e. the ability to communicate in at least one foreign language,
- *Intercultural competence*, i.e. the ability to treat members of a foreign culture with understanding, acceptance and tolerance,
- *International professional competence*, i.e. knowledge of professional regulations in foreign countries that differ from German standards,
- *Network competence*, i.e. the ability to deal with the relevant media in a knowledge-based, adequate and methodical manner and to make use of them in cross-border communication.

In this area there are also examples of successful integration of these requirements into training regulations. For example, the general training plan for the chemical/pharmaceutical laboratory assistant and also that of the laboratory professions explicitly contains "using foreign languages documents", which in turn leads to obligatory language courses in vocational school and optional qualifications for the acquisition of international competence. For the industrial metalworking professions, which are currently being reorganised, the social partners request the imparting of "Europe competence" (international exchange programmes; occupation-specific English in all occupations).

While upholding the occupation principle, recognised occupations must be organised in such a way that they not only compensate optimally for the economic structural transformation but also correspond to the changed requirements of employers and workers.

Consideration of this general goal requires, at least in part, *reorganisation of training regulations*,

- where, because of the need for observing the occupation concept, the individual occupational profiles are sufficiently sharply distinguished from each other, which in addition results in better promotion of identity development (the job title is also important in this regard),
- which on the other hand also allows for sufficiently large overlapping, thereby giving the companies a larger degree of flexibility in the specific adaptation to their task spectrum or work organisation, as well as simplifying professional advancement and job or occupation changes for trainees who have successfully completed the course.

Working groups 1 and 2 of this forum will therefore focus on the question of possible further development of occupational profiles and occupational structure, using the industrial metalworking and the automobile technician professions as examples of professions where reorganisation of vocational profiles is currently at the planning stage.

The increasing Europeanisation and international opening up of the economies and the job markets will in future also necessarily influence vocational education and training at the national level.

European and international influence can lead to changed priorities in national legislation and also needs to consider the binding supranational legislation. The latter include, for example, the EU directives on the right of establishment and freedom to provide services but also the pertinent decisions of the European Court of Justice which make it increasingly necessary to start a new discussion about the national legal basis of occupational law. Suitable approaches to solving the resulting problems should be worked out. First steps in this direction will be attempted in working group 3 where the question "State regulated occupations' monopoly or occupational freedom?" will be discussed.

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FORUM 7

INNOVATIVE APPROACHES IN COMMERCIAL AND MEDIA OCCUPATIONS

Traders, media and IT service providers are particularly affected by the changed situation in business life. Success on the market is the indicator for the appropriate skills of the employees: Skills in the fields customer/service orientation, IT, foreign languages, logistics, controlling as well as organisation and processing of knowledge data are, to different extents, required for the occupations.

In the period from 1996 to 2002 not only 47 new occupations have been created overall but also the content and structures of 126 existing occupations have been enriched with new elements, and the qualification profiles have been adapted to the needs of a globalised economy and society.

Initial vocational education and training is oriented towards a diversified basic vocational education, the imparting of distinctive vocational skills and the acquisition of professional experiences. Although companies are specialised, broad and extensive skills are still imperative because they guarantee a person's professional mobility and long-term employability and build a foundation for the future skills needs of the economy. In the area of continuing education and training as well, new project-oriented and process-oriented concepts have gained acceptance.

The occupation concept offers sufficient potentialities for shaping future occupational development.

Based on the social consensus and common criteria all new and newly regulated occupations contain a broad range of professional skills which are oriented towards the requirements of the branches and targeted at usability on the job market. The occupation concept intentionally does not support partial qualification in initial vocational training. The concept has proven in recent years that it can fulfil the demands of both trainees and companies. Pilot variations and possibilities of opening up have allowed occupational, branch-related and regional characteristics to be taken into consideration and the uniform structure of each occupation to be preserved. Another advantage of the occupation concept is that it transcends skills needs of individual companies and sets uniform federal standards for education, training and examinations. Additional challenges are the necessity of new interfaces to neighbouring occupational fields and the chances of integrating initial vocational training and continuing training as well as the development of hybrid qualifications, for example the growing together of commercial and technical qualifications.

First differentiation, now consolidation – the structures of regulated vocational education and training need to become more transparent.

The wave of new training regulations since 1996 has led to a large renewal in terms of content but also to a multitude of structural concepts for initial vocational training. The concept of core skills was the basis not only for the IT occupations but also, in an adapted form, for three new service occupations. The concept for the printing and media occupations differentiates between obligatory and optional qualification units both in basic and occupation-specific training. In the insurance business there are qualification options in the area of private or business customers, and in training for industrial clerks there is now greater consideration for branch-specific aspects. After this creative phase with a multitude of structural concepts it is now time for a consolidation phase to increase the transparency of the systems. Particularly the aspects in terms of content, methods and structures which are common to all branches need to be brought out more clearly and distinguished from branch-specific and occupation-specific characteristics.

There can be no high quality education and training without vocational schools. The status of the vocational school has to be raised.

Initial vocational education and training cannot fulfil its statutory mission without vocational schools. It is therefore imperative to recognise the vocational school as an equal partner in the dual system in the context of the cooperation of learning places. Standardising both curricula in a common general training plan (integrated vocational education and training plan) would be an adequate sign of a new role understanding. With a different "division of labour" as a starting point, vocational schools should impart, for example, comprehensive tasks like abstract and analytical thinking, communication, general cultural skills as well as economic and IT basics. The contents qualifying for the specific occupation – which undergo permanent changes depending on the company – should rather be assigned to the in-company learning place. Cooperation and division of tasks have to be newly aligned and the role and capacity of the vocational school has to be strengthened.

The necessity of lifelong learning requires sound education and training, a new organisation of learning and greater interchangeability to other educational fields.

Lifelong learning requires the commitment to organise education and training in such a way that the pleasure in acquiring new knowledge, experiences and insights is promoted and suitable methods are experienced and trained. Basic knowledge and experiences that can be built upon have to be tied to specialised knowledge and competences in selected fields. From the point of view of lifelong learning, initial vocational training and examinations should focus on what is most essential, at the same time employing the potential of exemplary learning more fully. The combination of basic skills and specialisation modules shows how this idea can be implemented in the training regulations.

Lifelong learning also has to ensure that qualifications acquired in the system of vocational education and training are recognised in continuing training certificates and as evidence of achievement for university or technical college studies.

Customer orientation in its various dimensions – from direct communication with the customer to the design of products and services – has to be further reinforced in commercial vocational education and training.

Customer relations are an indispensable topic in vocational education and training. Communicative behaviour as well as customer-oriented design of services, products and courses of business are of importance here. By reflecting their own behaviour and by practising behaviour patterns employees should be enabled to win customers and to bind them to their company.

The development of complex products and services that fill a demand is currently only possible in an increasing number of economy sectors in direct dialogue between developer and service provider. This requires, apart from high professional competence, a work climate that supports cooperation – not just in the relationship with the customer but also in the organisation of professional relationships within the company.

Business people have to be competent users of information technology; an understanding of the basics of the pertinent business processes is a prerequisite for targeted application of software programmes. Furthermore it is necessary to acquire mixed data processing/economic qualifications and network skills.

In commercial training the necessary IT application skills are taught as aids for the computer-assisted execution of different tasks and for making the underlying business processes understandable. If businesspersons are to use IT competently, they not only need to practise certain key combinations but also require an overview of the functional principles of such systems, and especially an understanding of the processes that are modelled by a software package. Carrying out all business processes by electronic means and the ensuing accelerated dynamism in structuring company fields of activity necessitates broad basic skills – branch-specific differences notwithstanding. This applies in particular to the acquisition of mixed data processing/economic qualifications and of social-communicative network skills, which can be applied both functionally and across different fields of work. Understanding their basics and the interrelations between the modelled processes, also in the case of changing work conditions, is required for their targeted use.

In times of economic transformation entrepreneurial independence should be supported in commercial vocational education and training.

The foundations of entrepreneurial independence are laid in vocational education and training. Commercial vocational education and training today already imparts most of the basic economic skills essential for potential business founders. What is missing, however, is the orientation towards professional self-employment. The different professional prospects of employed persons and self-employed ones should be demonstrated more clearly, and some educational content should get different priorities. In this way a sensibility could be created already during training that starting a business requires a sound business idea, research into the market conditions and the ability to assess costs and revenue realistically. Training methods that support self-employment, for example junior firms, offer trainees not only the opportunity to experience and help shape all relevant business

processes but also to get familiar with the framework conditions of entrepreneurial decisions. The imparting of soft skills like decisiveness, flexibility, target orientation and ability to plan and organise could also be supported more strongly during vocational training. The continuing education occupations (starting from the level of "Fachwirt") should be examined with regard to the question of whether they should qualify only for taking over management positions or additionally for professional self-employment.

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FORUM 8

PERSON-RELATED SERVICES AT THE INTERFACE OF THE MARKET, STATE AND SOCIETY

Service, "civic society" and volunteer work: social transitions and ideological changes of orientation as touchstones for the occupation system and initial vocational training and continuing training in person-related services (plenum)

Person-related and social services provide according to all predictions the most important stimuli for the future development of the economy, vocational education and training and the job market:

The care for old people alone will presumably require an additional 2 million trained professionals between now and 2015, given the demographic development in Germany. However, (professional) activities, working methods and qualifications are increasingly under the pressure of economic rationalisation strategies, legal interference and neglect by vocational education and training policy: low wages, lack of financing and McJobs, shortened training durations for "assistant" occupations with concurrent creation of (academic) elites in the fields of nursing and education and the new subsidiarity of volunteer work and communal commitment are decisively influencing the current situation in person-related service occupations.

The introductory plenum of the forum attempts to present and analyse the major influences on occupations, work and vocational education and training in the field of person-related and social services: the increasing fragility of the traditional orientation of vocational education and training and occupational profiles on paradigms of industriality and production, the growing influence of "soft" skills on occupational qualification profiles, the continuing sexual discrimination in health and social occupations and the necessity of bridging the gaps between the qualification systems of company, school and university.

*From the cooperative economy to the private economy – from skilled workers to the semi-skilled?
Vocational training policy perspectives and contradictions in the health and social services*

The "economisation of welfare" is accompanied by contradictory developments: they reach from an increasing range of assistant qualifications via the establishment of professional elites to the renaissance of the traditional volunteer worker. If skilled professional work is to gain profile in the person-related and social services then matters of qualification must not be marginalised by economic rationalisation concepts.

Especially the changed legal framework conditions (GSG, SGB) influence the economic status of charitable institutions and so-called "non-profit organisations". Cost-performance calculations, economic benchmarking and "total quality management" are the new guidelines for health and social service providers. The market economy re-organisation from the old-style "charitable benefit" to modern "service enterprises" and "service pools" has its consequences especially for the skills needs, the process of qualification and the professional requirements of the employees in person-related and social services.

The "economisation of welfare" process seems at the same time to initiate a new polarisation process in the field of requested professional qualifications which seemed to have been long overcome in the industrial economy sector: While the new health and social economy apparently relies increasingly on "helper" or "assistant" qualifications, most major professional organisations follow a policy of university-oriented "elite formation". The tradition of complementing skilled professional workers with voluntary workers is in this context not just a question of economic rationality but first and foremost a question of the social role of the profession and its qualifications: Will we succeed in integrating volunteer work together with professionally relevant qualification modules into the "lifelong learning" concept? Can we transplant "bridging qualifications" with professional recognition into civic work and volunteer work? These interconnections have so far not been acknowledged in traditional occupational discussions and professionalisation debates and will be discussed in working group 1.

Vocational training for person-related service occupations: necessary questions for vocational qualification concepts

School, company – or university? The argument about vocational learning places and qualification systems in the health and social services is waged with more dogged determination and ideological stubbornness than in any other occupational field. This allows the "hard facts" about occupational and qualification development, job market relevance of assistant and elite certifications, and performance of school-based and company-based training to be easily forgotten.

"Postmodernism" has reached the present stage of debates about occupations and qualifications: Modularisation of vocational education and training content, lifelong and flexible acquisition of vocational skills, individual and situation-conformative adaptation of professional knowledge and skills – these are the "modern" demands on the learners. Concepts for the academicalisation of vocational education and training (care, education), or at least school-based vocational education as a conceptual counterpoint to in-company training, play an extraordinary role particularly in the person-related and social services field.

It is obvious that this trend towards "modernisation" of vocational education and training through academicalisation and schoolification contains contradictions worthy of discussion but also possibilities of modification which should not be ignored when thinking about future concepts of vocational education and training in the field of person-related and social services:

In particular the specific performance advantages and disadvantages of an academic "vocational training", the foreseeable consequences of a polarisation between "elites" and "helpers" as well as possible models of cooperation between in-company and school-based vocational education and training need to be discussed.

Rehabilitation of people with disabilities: as normal as possible – as special as necessary

The further development of the occupation system has its consequences for the occupational rehabilitation of people with disabilities. The changes in the field of IT and media occupations in particular are a great challenge for vocational education and training bodies and especially for didactics and teaching methods in occupational rehabilitation.

According to Book 9 of the Social Code (SGB IX), rehabilitation and participation of disabled people is to enable people with disabilities to realise their claim to a self-determined life as a part of universal civil rights. They receive rights to cooperate and participate in the determination of contents and goals of social services concerning them, for example rights to make suggestions and to vote on them, but also new forms of services like the right to professional assistance and a personal budget.

Following the principle "as normal as possible – as special as necessary" training forms and regulations for disabled young persons have to be tailored to the individual case. To put this principle into practice it is necessary to review existing systems of vocational education and training at various levels and to adapt them to the challenges.

The starting point in occupational rehabilitation must be a competence approach and not a deficiency approach: The abilities of people with disabilities have to be improved, their resources used. Of special importance in this regard are the acquisition of extra-functional media and communication skills and the qualification to self-reliance in the learning and information process (examples: IT occupations, virtual vocational training centre for handicapped juveniles).

BIBB CONTACTS: DR. WOLFGANG BECKER, BARBARA MEIFORT



FORUM 9

DISADVANTAGE IN THE EDUCATION SOCIETY – PERSPECTIVES FOR OCCUPATIONAL PROMOTION

Employment and occupation opportunities are very strongly coupled with formalised educational pathways and certifications in Germany. The "value" of a job applicant is measured by his or her certificates. Missteps inevitably lead to disadvantages and hold the danger of exclusion from society. The PISA studies have shown that school education in particular is ever less able to integrate the disadvantaged. Vocational education and training can choose from different paths in this field.

Individual training paths and structured forms of support

The support offerings made by vocational education and training have to find a middle way between the individual needs and the structures of funding and government action.

The pathways to personal development and social integration are individually very different. Young people with unfavourable social preconditions or bad performance at school need more time and more alternatives to find and follow their path.

The structures of support that have evolved follow their own logic and are hardly compatible with individual support or assistance plans. The offers of assistance provided by institutionalised support agencies are often not coordinated and waste valuable resources without creating medium-term prospects for the disadvantaged. At the personal level this leads to measure careers without integration into the first job market and on the society level to a jungle of measures that is impermeable to the young people and almost incomprehensible even to experts.

Because of the resulting confusing and unsatisfying measure structures which lead to individual support careers there is currently a reorientation trend in different sectors of support for the disadvantaged, away from measure orientation towards person orientation: Detours are supposed to be prevented, resources saved, motivation kept and success (acquisition of a vocational training certificate, transfer into employment) ensured.

At the level of educational policy new support structures for young people requiring support are being developed.

The providers of extra-company vocational education and training are developing training forms which integrate the in-company learning sites more strongly and therefore simplify overcoming the second threshold. The interlocking of different kinds of measures, like vocational preparation, vocational training and assistance accompanying training are intended to ensure more focused and sustained promotion.

Interruptions in training should not result in permanent renunciation of completed vocational training and hence in permanent disadvantage. The documentation of qualification modules, the confirmation of partial qualifications and the delayed acquisition of a vocational training certificate through post-qualification approaches should offer an alternative vocational qualification opportunity.

New occupations and skills needs

The qualification needs in the working world are constantly changing. The half-life of knowledge and acquired skills is shrinking more and more.

The exercise of vocational activities requires the development of new competences such as media competence and self-marketing and the reinforcement of personal and social competences such as independence, decision-making and problem-solving ability, the ability to communicate and cooperate. This confronts support for the disadvantaged with new challenges.

The technological permeation of the working world requires IT competence on the part of all young people. For the disadvantaged young people group this also means a new chance; since dealing with the new media so far has not been associated with negative school experience, new learning potentialities can be opened up through learning with the new media.

Owing to the new qualification needs, in particular in the personal sphere, the integration of young people requiring support is becoming more and more difficult: new qualification models and pathways for disadvantaged young people are called for.

One key issue is the promotion of new "lean" occupations with less complex content. Another is the development of qualification modules and partial qualifications. These will allow disadvantaged young people who have not (yet) managed to finish vocational training with a certificate to receive proof of their partial qualification as a step towards finishing their vocational training. Opponents of this path fear that any form of special certificate for disadvantaged young people will only reinforce their discrimination.

Transfer and evaluation

Despite the demand for changes there is almost no transfer of pilot project results into training practice: positive experiences are lost or not integrated into the support for the disadvantaged. Methodical spreading of the concepts and instruments used is unfortunately still only in its beginnings: the existing competence potential within the spectrum of supporting the disadvantaged in vocational education and training is not made use of.

The reason is that both the willingness to change and the necessity of change are missing. Thanks to public support it has obviously been possible so far to maintain the status quo even without changing anything. But in the context of the short supply of financial resources this state can no longer be maintained. The indifference of training providers towards transfer and the priorities of the support agencies prevent cooperative solutions and qualitative improvements. The short-term orientation on proof of integration just serves the purpose of adjustment of the statistics. Attractive projects and models are more easily marketable in daily political business than long-term transformations.

Transfer and evaluation of measures will receive a new standing in future: Transfer platforms like the GPC or the "Stiftung Bildungstest" (Foundation Education Test) will serve as substitutes for the lack of market transparency in the publicly sponsored sector of vocational education and training.

Cooperation is an obligatory prerequisite for transfer. Cooperation is sustainable if all participants benefit from cooperating. Thus it is necessary to develop offers of bidirectional transfer that generate benefits.

The further development of measures and methods puts questions of effectiveness and fundability into the foreground. Knowledge management in the field of support for the disadvantaged has to answer the following questions:

- How can the knowledge and experiences of the participants be made generally accessible, updated and saved?
- Which conditions have to be met to allow for the transfer of existing and proven approaches?

The support for the disadvantaged can be effectively improved through the interplay of transfer and evaluation.

Prospects for support for the disadvantaged

The conversion of the support structure from measure orientation to person orientation means on the one hand consistent implementation of the social pedagogically-oriented support concept and on the other the dissolution of standardised forms of support for the disadvantaged (fixed training groups, fixed times of transition to cooperative or in-company training, support either through assistance accompanying training (abH) or through vocational training outside the company (BaE)).

This entails the danger of isolation. Young people requiring support, whose backgrounds are often characterised by the experience of failure and negative relationship structures, require personal and emotional stability and continuous assistance (case management).

The return of practical technical training to the company leads to a redefinition of the tasks of the different learning places in support for the disadvantaged. This is followed by a redefinition of the role and function of the education providers in vocational training as a whole.

Trainees requiring support change between the in-company and extra-company learning place according to their individual state of development and development phase. In-company trainees

participate in offers made by education providers like preparation for examinations, courses in specialised topics and projects of social training. The providers, being the experts in training young people requiring support, increasingly turn into service providers for the regional enterprises.

The increasing individualisation of vocational training for young people requiring support leads to a modularisation of training in the long term. This necessitates consequent development of qualification modules.

The development of independent training units allows a temporary interruption of vocational training (insertion of phases of support, work or school, e.g. as a second chance to obtain school certificates) and thus accommodates the focus on personal development. However, promotion of this development is only sensible if the individual young person, even when temporarily interrupting vocational training, still has contact persons supporting him or her in his/her individual training planning.

Current developments in support for the disadvantaged, like the new regulations for the division of tasks between the learning places in vocational education and training, the development of independent content units (qualification units) and the development of new approaches to transfer and evaluation could serve as models for the reorganisation of in-company vocational training.

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FORUM 10

DEMAND-DRIVEN SERVICES FOR SMALL AND MEDIUM-SIZED ENTERPRISES –

THE LEITMOTIF OF THE INTER-COMPANY TRAINING CENTRE AS CENTRE OF EXCELLENCE

The inter-company training centres are increasingly being affected by the comprehensive processes of change in the working world. The modernisation offensive in the vocational education and training system also poses new tasks for them. Efficiency and practical usability criteria compel the education providers to redefine their relationship with company practice. Competence is what it is all about. The idea of centres of excellence has already reached and mobilised the educational establishments. As far as concrete implementation is concerned, however, there are at present more questions than answers.

The following working theses concerning the continuing evolution of the inter-company training centres into successful innovative educational service providers may serve to stimulate discussion:

The future success of the vocational training centres will depend largely on the extent to which they succeed in evolving from education offerers to educational service providers. Demand orientation as the basis for a new business relationship with the customer requires far-reaching organisational, staff and qualification changes in the educational establishments and the organisations sponsoring them.

Request and demand orientation implies greater proximity to the companies and participants and the resulting precise knowledge of company practice. The educational establishments will increasingly have to derive their qualification requirements and qualification concepts from the company work processes.

The overcoming of company problems and the increased competence in the company business and work processes that this entails will be the decisive business basis of the centres of excellence in the future.

Experience has shown that companies do not think in categories of differentiated qualification measures but expect rapid and efficacious solutions for company problems. Innovative educational service providers can meet this requirement by overcoming their narrow and course-centred conception of qualification and link initial vocational training and continuing training with consultation, company coaching and technology transfer. Flexible "problem-solving packages" geared to

requirements provided promptly by one (network) provider will become a decisive criterion for competence.

The competence of innovative educational service providers is determined in essence by the ability to rapidly generate and evaluate a constantly expanding and changing body of knowledge and translate it into competence-building services and, not least, to get rid of outdated knowledge.

The present forms of knowledge processing in educational institutions fail with increasing frequency or prove to be too inert in view of the speed of knowledge propagation and change. Like enterprises, whose competitiveness depends primarily on the speed of product innovation, educational service providers are now faced with the challenge to develop new strategies for efficacious knowledge processing and utilisation. Analogous to the production of goods, work with knowledge requires the definition of processing and process procedures that embrace the whole chain from identification through the acquisition and processing of knowledge to its (electronic) storage, forwarding and, above all, utilisation.

Centres of excellence will increasingly be required to form alliances and participate in competence networks. This is the only way they can meet the large demand spectrum in breadth and depth and offer their services flexibly, rapidly and at acceptable prices "from a single source".

For the institutions this means changing structures, creating platforms for knowledge-based exchange and enabling staff to acquire the requisite skills before they can acquire the ability to cooperate. In this connection the training centres must develop the willingness or acceptance of the need to specialise, that is, to provide courses corresponding to core requirements. This also means abandoning tasks (unprofitable ones by preference).

Quality management that is transparent in its application and effect will be an important instrument for training centres in the future for recruiting customers and ensuring their loyalty. Quality management thus qualifies as an essential element in successful education marketing and successful cooperation relationships.

Inter-company training centres as centres of excellence do not just rely on providing high quality services, they also control them in order to maintain the quality standard and open up potentials for improvement. The most valuable of such potentials can be opened up through the customers and their evaluation of a qualification. Through education controlling procedures, for example, the customer can become actively involved in the optimisation of qualification processes.

Centres of excellence will only be able to satisfy the new requirements and/or their own aspirations if they prepare their staff intensively and with clear targets for these new tasks.

There are grounds for scepticism about whether this can succeed with the present form of trainer qualification. One reason is that the traditional continuing education and training of trainers is suboptimal in its effect and the application of what has been learned often fails because of general conditions and lack of support in the training centres. In addition, it is doubtful whether the present

continuing education of trainers will still correspond to the tasks of the trainer in the context of customer-oriented service providing. The tasks and role of the trainer will have to be redefined in the context of such a concept.

The level of development, degree of propagation and constantly increasing profitability of the information and communications technologies will open up new opportunities for cooperation among the centres of excellence and between them and other learning sites and institutions.

Cooperation among learning sites has been insisted on, considered desirable and yet seldom practised for as long as the Vocational Training Act has existed. The reasons are well known and have changed little down through the decades. The information and communications technologies as a new element in this system and one rich in communication potential arouse hopes of progress. The precondition is that none of the learning sites lags behind and that in conceiving measures the partners do not lose sight of the need for compatibility and the use of uniform quality standards as well as the timely acquisition of the skills this requires.

Linked with the further evolution of the inter-company training centres into centres of excellence are the realistic possibilities of methodological repositioning of inter-company training.

The application of action-oriented teaching and learning arrangements in the method mixture of inter-company training measures is of particular importance in this connection. Learning based on a customer order assumes a central position because it seems particularly apt to promote a sense of reality in terms of actual company situations. In order to implement the desired methodological repositioning of the inter-company training centres, in addition to working out concrete action-oriented teaching/learning arrangements, it will be necessary to set regulatory policy and provider-organisational goals. This applies above all to setting benchmarks for the action-oriented reorganisation of the inter-company training centres within the general curricula for inter-company vocational training and tailoring staff and material preconditions to the changed spectrum of requirements.

Both the inter-company training centres and the vocational schools have undertaken to evolve into centres of excellence and to some extent pursue similar goals, so this process will not be without tension.

Both sites of learning traditionally have different strengths and weaknesses, but at present they have quite similar concerns. The drastic drop in the number of participants owing to demographic factors and the shrinking budgets at a time of growing customer demands makes change mandatory. More efficiency in task performance and new partnerships for a division of labour in performing services, help in meeting the criteria for a centre of excellence. For that reason the present incentive policy with innovation in the context of regional development at its core aims at synergy through networking. Whether the cooperation potential this offers is actually exhausted or the development leads to sharper competition and the erection of barriers between sites of learning will depend largely on the players themselves.

Not all the approximately 800 inter-company training centres in the Federal Republic of Germany will be able to or want to evolve into centres of excellence as provided for in the Bundesministerium für Bildung und Forschung (Federal Ministry of Education and Research) incentive concept dated from July 2001.

Structures and profiles, general regional conditions, the qualification of staff, the providers and so on differ widely in the inter-company training centres. Accordingly the starting conditions for this evolutionary process are just as different. Nevertheless the stringent requirements that have to be met under the new incentive concept are basically the same for all potential applicants. These requirements were all formulated by the inter-company training centres themselves in a country-wide competition of ideas. The BIBB, (Federal Institute for Vocational Training) which conducted the competition, adopted the characteristics of future innovative educational service providers outlined there and made them the basis of the new incentive concept as requirements for ensuring the viability of the training centres.

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FORUM 11

ADVANCEMENT AT WORK AND PROFESSIONAL CAREERS THROUGH CONTINUING TRAINING¹

Continuing training is a decisive help nowadays for the continuing professional advancement of widely differing target groups and especially of the graduates of the dual system of vocational education and training:

About 40% of all employed persons annually participate in continuing training events; about 11% of all employed persons are in what are called continuing training occupations. Every year about 140,000 persons take continuing training examinations as provided for by the Vocational Training Act. These are in part considerably larger orders of magnitude than are found in technical colleges and universities.

Even if the number of lasting hierarchic subordination relationships of structural organisation and hence the corresponding hierarchic "advancement" is decreasing in the modern company organisation, entrepreneurs still, and indeed increasingly, need "vocational development pathways" for their personnel that permit functional vocational advancement. These opportunities for advancement are oriented to a greater extent nowadays around the project organisation that many firms have introduced. Continuing training occupations are needed for this functional advancement that meet the corresponding higher skills requirements and provide the requisite guidance for all those involved. While the recognised occupations cover all training opportunities and thus determine the "basic horizontal structure" of the vocational education and training system, a "vertical structure" of the vocational education and training system is gradually generated by continuing training regulations of the chambers and the federal government out of what are called "continuing training occupations": Continuing training examinations allow the recognition of qualifications and skills that can be gradually acquired through vocational experience at work and through continuing training on-the-job.

In the year 2000 the lead organisations of the social partners, with the support of the Federal Institute for Vocational Training, prepared a structural model in which all the vocational education and training certificates provided for under the Vocational Training Act can be integrated and which is the foundation for a network of calculable vocational development opportunities or "opportunities for

¹ Continuing training in the spirit of the Vocational Training Act of 1969 is called *Fortbildung* (further education) in the text of the Act.

advancement". It is only in this way that a vocational education and training system in the real sense of the term will emerge.

In the public (status) consciousness of the Federal Republic of Germany, however, continuing training certificates still do not play the role that they merit in the creation of independent structural "continuing training occupations". Despite protestations to the contrary, continuing training is instead still frequently treated as a supplement, an appendix to the training that determines the relative status of the holder. The specific skills needs to be met in essence by way of vocational and in particular enterprise experience and the independent vocational character of intermediate and higher specialised and leadership functions are still underestimated in the public mind and in considerable parts of business.

Recently one branch of industry, the IT industry, developed for the first time a stringent system of initial vocational training and continuing training occupations for its field that covers the requirements of its entire sphere of activity and the corresponding vocational development opportunities and classifies the skills needs in four qualification levels: skilled occupations, specialist profiles, operative professionals and strategic professionals. For reasons of its quality supply this dynamic branch evidently considers a system of initial vocational training and continuing training occupations to be necessary for the vocational development of its employees and hence for its attractiveness.

This has aroused considerable attention and induced other branches – e.g. chemistry, construction and the media industry – to critically examine their own continuing education and training for practicality and restructure it if need be. Gradually, propelled by such developments, the realisation is growing that a system and a systematic treatment of regulated continuing training is necessary and worthwhile for all those involved in the labour market and the continuing training market even in the case of market economy structures of continuing training.

The Federal Minister of Education and Research has proclaimed the IT model as her programme and recommended it be copied. This is a signal for the discussion about the future structure of vocational education and training and is therefore also the starting point and central theme of this forum. The following questions are to be dealt with in connection with this programmatic development in continuing training.

What should a viable structure for upgrading training be like? Can one formulate points that the various branches have in common? To what extent are elements of the "IT model" suitable as orientation or at least as a benchmark for other branches?

Continuing training structures that have evolved over a lengthy period in the traditional manufacturing and service branches and in the crafts, such as those serving as the basis for the system concept of the social partners mentioned above, have in some respects a structure that is totally different from that of the "IT model".

The closer the parameters of influence for the development of a branch are related to those of the IT branch – for example in the new service branches – the more likely similar organisational ideas are to be appropriate. Information and communications technology is in any case a cross-section technology that is gradually penetrating all branches, more or less, directly or indirectly and will substantially

affect their task structures. This applies in particular to the electrical industry, which recently started rearranging its initial vocational training and continuing training. Thus the electrical industry will be an example for the discussion of this process.

The introduction of a basic initial vocational training and continuing training system for the security services raises the question of how lateral entry can be supported by meaningful regulatory means.

Regulated continuing training structures support a large number of vocational development opportunities for target groups that enter an industry from other branches (lateral entry) or have to or want to re-enter the old field of activity after a phase without vocational activity. This applies first of all to all new branches for which basic training does not yet exist. Increasingly, however, vocational training is used, for example, by university graduates who do not find acceptable development opportunities in the economy with their diplomas and want to create a better or a new basis through a continuing education occupation. Such situations are found, for example, in the IT industry. For the security services branch lateral entry has been typical for some time.

What part is played here by job and company experience as well as precise knowledge of the company's performance on the one hand and strategic thinking and action in the light of market and customer requirements on the other? How can the necessary level of performance be ensured and, among other things, qualified lateral entry for university graduates facilitated through appropriate regulatory means?

A central inquiry for the relative importance of the vocational education and training system in the economy and society is how far along the road of upgrading via continuing training levels those qualifications can be acquired that are needed for the strategic management of an enterprise: for the enterprise management in SMEs, for controlling, marketing, quality management and the corresponding information supply of the enterprise management.

How can the transitions between the occupations and branches and in the technical colleges and universities be facilitated?

Initial vocational training and continuing training occupations are only a basic structure for a viable vocational education and training system. In order to create the necessary flexibility and permeability for constantly changing and varying demands, transitions between occupations and industrial branches and in the technical college and university system are necessary. This can be achieved through standardised supplementary qualifications as well as through reciprocal accounting and recognition opportunities, as are being developed internationally at the present time in the university sphere in the form of credit point systems. This is to be tried out in Germany too between the vocational education and training system and the German university system, taking the IT industry as an example.

The orientation of modern vocational education and training on business processes/project structures and action situations makes enormous demands on the vocational education and training system. This applies to the qualification and examination conditions, and primarily the qualifications and skills of the personnel responsible for this. The performance and relative importance of the vocational

education and training system stand and fall with them. They too are at present underestimated; the relevant continuing training occupations are lacking. These will therefore be the subject of debate in Forum 11 on the basis of concrete examples.

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