

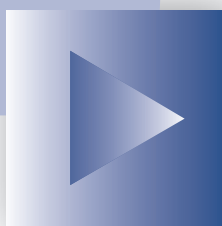
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VOCATIONAL TRAINING
IN RESEARCH
AND PRACTICE

OFFPRINT

Attractiveness of
vocational education



Vocational Education and Training 2020

Consequences for continuing development of the recognised-occupation model

► The key challenges for vocational education and training (VET) are demographic change with all its consequences including the implications for securing the skilled workforce, and internationalisation in business and society and the associated task of integration. We must bear these aspects in mind for the continuing development of the VET system – that was one of the central messages at the 2011 BIBB Congress in Berlin. What are the likely repercussions for the continuing development of the

model of the recognised occupation? Within the framework of communication between research, policy and practice pursued at BIBB, this question was explored in order to gather answers from the principal players in VET policy, who influence the future elaboration of recognised occupations. This yielded a range of comments that are not only interesting but also practicable, and are presented in this article.

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Prof. Esser_ *What potential does vocational education make available to meet the demand for a skilled workforce?*

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

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

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

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

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

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

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

JOHANNA BITTNER-KELBER

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

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

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

PROF. DR. GEORG SPÖTTL

“Vocational training should play a part in educating mature citizens.”





THOMAS SONDERMANN

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

which integrative competence is necessary to perform them effectively.

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

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

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

Occupational groups are intended to create more transparency for young people and companies and to enable greater mobility between occupations and sectors. Competence-oriented descriptions within the training regulations may help

to identify technical crossovers across training occupations, and so facilitate the creation of occupational groups.

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

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

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

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

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



DR. ESTHER HARTWICH

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

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

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

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

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

Dr. Hartwich Education and training initiatives – either at central government or at regional level – have been dealing with precisely this challenge for some years. The outcomes of various initiatives such as JOBSTARTER CONNECT, DECVET or ANKOM must be evaluated jointly with all stakeholders before launching new support programmes or research projects. Re-examining the need for new structures or regulations is another aspect of this. The framework conditions in vocational education have changed since the year 2005. For example, the declining numbers of applicants

DR. BEATE SCHEFFLER

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



in the apprenticeship place market have made companies much more open when it comes to filling their training places. The universities, too, are increasingly opening their doors to holders of vocational qualifications. In this respect the negative tendency of the demographic trend can become a positive driver for changes in the education system.

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

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

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

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

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



THOMAS GIESSLER

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

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

Prof. Esser *Does the model of the recognised occupation offer the necessary flexibility to cope with future challenges?*

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

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

there is still more potential here which we could attract into dual system initial vocational training.

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

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

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

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

Opportunities and prospects of vocational training

Interview with four trainees on their expectations, experiences and career plans

What are the attractions of vocational training from the trainees' viewpoints? Why did they choose their vocational training programmes? What are their plans once they have gained their certificates? The four people interviewed talk about their motivations, expectations and plans. A highly diverse set of motives and prospects are revealed. All interviewees agree, however, that their chosen training gives them an opportunity to realise the career goals on which their sights are set.

SVEN FRENZEL

"I had no idea that working as a painter and varnisher would be so varied."



SVEN FRENZEL, born in 1991, gained a general secondary school certificate before embarking on an extra-company training programme; he is currently in his second year of training as a painter and varnisher with the painting and decorating firm Malereibetrieb Hubert Jürgens in Hamburg.

BWP Was your current training occupation your first choice, or did you originally have other plans?

FRENZEL I wanted to do my training in a skilled craft, at any rate. Initially I was placed on an extra-company training programme at KOM, which is an independent provider. It's a good place to get some practice. They place young people in firms offering work experience placements. And those who do well can be taken on permanently. I did my work placement here at the firm Malereibetrieb Jürgens, and because the firm was pleased with me they took me on permanently. I just happened to be sent to the right firm, I suppose. I'd applied to skilled craft companies all over the place but I liked this one best. And I am still enjoying it.

BWP What attracted you about a skilled craft occupation or training as a painter and varnisher? What were your expectations?

FRENZEL I can't quite remember any more. I just wanted to get a good training and find an occupation that I enjoyed. I'd been at school a long time by then. Before my training I did a work experience placement. I liked it very much. I had no idea that working as a painter was so varied. Everybody thinks "it must be so dull, painting all day long". But I saw that the occupation offers a lot more than that.

BWP What do you mean by varied?

FRENZEL What I mean by varied, for instance, is that I might also get to work outside on the façade or on the thermal insulation. Although I haven't done it myself yet, I'm certainly looking forward to it. There are also various techniques that you can use, like varnishing for example. Another thing I like is all the work that goes on before anyone ever starts painting: surface preparation and so on. I find it really enjoyable.

Sometimes it involves a lot of sanding, but it's just part of the job.

BWP So are you satisfied with your choice today?

FRENZEL Yes, very! In fact it has even exceeded my expectations. Especially here in the firm. Everyone is kind and looks out for you. The workplace has a good atmosphere. People make time to help me.

BWP What do you like most about your training?

FRENZEL Lots of things! There's always something different to do. And if I don't know what to do, they explain it all to me. If I have questions I can always turn to my trainer. I'm really learning a trade here. And I can even make use of it in my own time. My brother is moving next week, for example. So last week I went and did a bit of painting at his place.

BWP And are there any aspects that you aren't so keen on or that leave room for improvement?

FRENZEL No, there isn't really. Maybe something will come up, but nothing springs to mind at the moment. That might also be thanks to the firm. A few people in my class never have anything good to talk about. Their work is always the same; they have to do overtime and don't get paid for it, or aren't allowed to leave early sometimes to make up for it. But I'm very satisfied here.

BWP When do you expect to finish your training and have you already made plans for afterwards?

FRENZEL On 1 September 2014 I will finish my training. I hope I will then be taken on permanently. I'd like to stay here at the firm and work at journeyman level. I wouldn't like to do further training for the time being.

RUTH VASKO

"I noticed that without a solid training I was running up against career limitations."



RUTH VASKO, born 1969, gained an intermediate school leaving certificate and worked for 20 years in the care sector; she is currently in her first year of training as a carer for the elderly at the Caritas Association for the city of Bonn.

BWP Was your current training occupation your first choice?

VASKO I always wanted to work in a social occupation and was actually employed in that field for a very long time. After the birth of my first child I worked as a nursing auxiliary and later as a healthcare assistant. Even then, I planned to take a fully fledged nursing qualification but because of my family situation I never managed to do so. Instead I took continuing education courses to become a hospice assistant, a personal care attendant and, when I started in a residential community for people with dementia – where I'm still working now – as a gerontopsychiatric worker.

BWP Why did you finally decide to take vocational training, in the end? What is the attraction of working as a carer for the elderly, and what were your expectations?

VASKO At some point I realised that I can connect with people, I suppose, and that I enjoy this kind of work. That's what motivated me to continue working in this field. But in the final analysis, employers all insist on exam certificates. I knew that however much experience I could bring to the work, the lack of an exam certificate would always rule me out, even during the application procedure. Added to that, colleagues don't give you the same respect otherwise. You have the knowledge but you are always in the shadow of the experts and seen as the person who ultimately doesn't have a clue. That was the problem that drove me crazy in the end, and I wanted to do something about it. Over the course of almost 20 years, by that time, I'd learnt a lot but I repeatedly ran up against limitations because I lacked the foundation of a solid training. So I made up my mind to take my exam.

BWP Are you satisfied with your choice today? Have your expectations of the training been fulfilled so far?

VASKO On the practical side, yes. Although I haven't come across much that is new to me at school over the last six months, that doesn't really matter. I think in the care sector in particular, continuous professional development is very important because so much is changing. For example, 15 years ago dementia was not even part of the curriculum for the vocational training to become a carer for elderly people. That's changed now.

BWP What do you like about your training?

VASKO I very much like being on practical duty, and I still really enjoy broadening my knowledge and learning from my colleagues' experience.

BWP And are there any aspects that you aren't so keen on?

VASKO At school I occasionally run up against my limitations. I suppose it's mainly because there's such an age difference between myself and my classmates. It's very tiring to sit in a class where the majority of learners are very young. Maybe I bring different expectations and a different type of motivation to the matter: I want to listen and learn. But because of the teaching conditions, unfortunately the content is suffering quite badly at the moment.

BWP What could be improved?

VASKO There are three other trainees of my age in my class. They're having the same problems. I would be glad if the learning atmosphere improved over the course of the training.

BWP What kinds of things can you do with your training?

VASKO I can work as a care worker in old people's homes and outpatient services. At any rate, I'd like to advance professionally after finishing my training. I can take advanced training to become a residential or care services manager, or else I can work in the gerontopsychiatric department of a hospital.

BWP When will you finish your training and have you already made plans for afterwards?

VASKO I should finish my training in December 2015. Since I'll have completed the advanced training to become a gerontopsychiatric worker by then, I'm already fairly sure that I'd like to work in a residential care community at some point. Probably for people with dementia; in psychiatric care, at any rate. Later on I'd like to set up one of these residential settings myself, because I think they're very worthwhile. But for the time being I would like to stay on my ward.

ARYAN AZIZ

"I wanted to seize the opportunity and power ahead with my training."



ARYAN AZIZ, born 1993, gained an intermediate school leaving certificate and completed an introductory training qualification; he is currently in his second year of training as a management assistant for retail services at Deutsche Telekom in Bonn.

BWP Was your current training occupation your first choice, or did you originally have other plans?

AZIZ I didn't know exactly what I wanted to do. I wanted to work with people, at any rate. After leaving school I did a year's voluntary work in the community. My parents had just separated and it wasn't an easy time for me to decide which way to go career-wise. I did voluntary work with a children's group at the youth centre and realised that working with people appeals to me. I could picture myself doing something in the educational field. But even then I also had an interest in working as a management assistant, because I'm good at selling, too. I remember that from the days when we used to collect and sell stickers. I was very successful at it.

BWP And why did you finally choose to train as a retail management assistant?

AZIZ: The employment agency had pointed it out to me. I had registered with them, and they asked me what I thought of Deutsche Telekom. There was an option to take an introductory training qualification with them. In my mind, the penny dropped immediately: Deutsche Telekom? A huge and responsible employer. And all kinds of future prospects are on offer, for instance if I want my own home, family and children at some stage. So I had a choice between training as a nursery teacher or at Telekom. I thought I'd prefer to go for Telekom, even if the only way in was a one-year work placement - an introductory training qualification, in other words. But that didn't matter to me, because I wanted to power ahead and get a proper training.

BWP What were your expectations at the time, when you applied for the introductory training?

AZIZ Actually I thought I'd be thrown in at the deep end here, and have to go straight into sales. But the focus in the first few weeks was purely on getting to know one another. After that there was a "taster phase" in the shop. I'd also been talking to my brother who works in retail, to find out what it's like advising customers, standing at the till and being on your feet for hours. It didn't put me off, though.

BWP Are you satisfied with your choice today?

AZIZ I'm completely satisfied! My expectations have not just been fulfilled; they've been exceeded. And I did well enough to be awarded learning credit for the whole of that first year, so I've skipped straight into the second year of training. I didn't feel like an introductory trainee but a completely 'normal' apprentice. Telekom has already become rather like a family to me. I already call myself a Telekom person and try to project that image outside the firm.

BWP What do you like about your training?

AZIZ When I make comparisons with other apprentices, we have it very good here. I earn good money; on the days I attend vocational school I don't have to go into work afterwards; I have regular working hours and get very good discounts. We are given time to prepare for examinations and can revise alongside the trainer and our fellow trainees. Now if I look at some of the others I meet at vocational school, they've had to slog at work and then do extra revision at home. The other thing is I have plenty of contact with people here, so I learn a lot about them and how to interpret their facial expressions and body language. That way, I instantly know whether or not somebody wants help and how I can respond. I also enjoy attending the part-time vocational school because it's a place to exchange views with trainees who work in other companies and maybe have different selling techniques from ours.

BWP And is there any aspect that you aren't so keen on?

AZIZ Hmm – quite honestly I can't think of an answer to that. I don't think there's anything I dislike. I've settled in here very well indeed.

BWP When do you expect to finish your training and have you already made plans for afterwards?

AZIZ I should finish my training in August 2014. I'd like to do a subject-specific higher education entrance qualification after my training, but maybe not right away. To start with I'd like to stay here in the company and keep working in the shop. If I then had an opportunity to take a dual study course here, I would definitely do so.

MELANIE THÖNI

"It makes my studies much more meaningful if I can immediately apply what I've learned."



MELANIE THÖNI, born in 1991, gained a higher education entrance qualification; she is currently in her second year of training on a dual study course for a Bachelor of Engineering, majoring in mechanical engineering, at the Fraunhofer Institute for High-Speed Dynamics, Ernst-Mach-Institut (EMI) in Freiburg and the Baden-Württemberg Cooperative State University in Lörrach.

BWP Was your current training occupation your first choice, or did you have other plans as well?

THÖNI It was my first choice. Even at school I was interested in applied mathematics and I took maths and physics as advanced-level subjects. At home I often used to do puzzles and play the sort of games that required mental effort. Later I completed a work placement in the chemical industry at Rhodia Acetow in Freiburg, where I spent time in various departments looking at how mechanical engineers work. I immediately realised that I enjoyed it and could probably do well at it.

BWP And what attracted you to the dual study course for the Bachelor of Engineering degree?

THÖNI My main motivation was the alternation between work and study, and I was keen to apply what I learned in practice in order to understand it better. My uncle told me about his dual study course at a university of cooperative education, and that it worked well for him but was not so highly regarded in those days. But that has changed. It's no longer seen as one of those Bachelor's programmes where everyone thinks you'll graduate yet still not be competent.

BWP What were your expectations to start with?

THÖNI I knew that I'd alternate between going to university for three months, followed by exams, and then doing three months training at the Fraunhofer Institute. The fact that these phases actually have nothing to do with each other was clear to me beforehand. But naturally I expected the cooperation to work despite that.

BWP And does it work? Have your expectations of the training been fulfilled so far?

THÖNI At the Institute I have a supervisor and at the university there is a course leader. The two of them talk to each other - as far as I know - primarily because of the practical reports that I write during the practical phases. It's generally true that whatever one learns during the three theory months is subsequently applied in practice. But in our case, sometimes it wasn't strictly three months and I only spent two weeks or so at the Fraunhofer Institute. It's difficult to make worthwhile use of such a short practical period.

But generally I'm very satisfied with the Mechanical Engineering degree programme. The variety offered by the dual study course is ideal for me. Whenever we've learnt something at the university and been examined on it, we go back to the Institute and directly see how it is applied. My supervisor often organises opportunities for me to take part in various projects. For me, that makes the learning so much more meaningful. So my expectations have been fulfilled.

BWP And are there any aspects that you aren't so keen on?

THÖNI I find it problematic being the only woman on a Mechanical Engineering course. Many lecturers take no notice of what I say, simply because I'm a woman. And classmates and staff constantly crack jokes, e.g. when I'm working on a machine. Once in a while it can be quite amusing, but overall it's very tiresome and somewhat disrespectful.

BWP How could it be improved?

THÖNI There should be more transparency about it so that I don't have to go and raise it with the course leader at the university and then do the same again at the Institute. I think there should be more public debate about the prejudices that exist against women in these professions.

BWP What kinds of things can you do later on with your Bachelor's degree?

THÖNI Because the demand for mechanical engineers is generally very high, especially in Germany, the Bachelor's degree already lays a good foundation for direct entry to employment. There are many sectors, such as vehicle construction, aerospace, chemicals or energy technology, in which I could specialize.

BWP When will you finish your dual degree and have you already made plans for afterwards?

THÖNI I should finish my dual degree in September 2014. First I would like to work for a while and go abroad to improve my English so that I can communicate easily with international customers. Then I would like to do a Master's degree to deepen my knowledge in the field of numerical simulation.

Interviews: Prof. Dr. Gerhard Christe, Dr. Christiane Eberhardt, Katharina Rempel

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From a special case to a model that is in demand – what makes dual VET attractive abroad?

Not too long ago, the German model of VET and its combination of school-based and company-based learning venues was considered to be a vocational training pathway all of its own, and Germany regularly had to face criticism from the OECD that its rate of persons with academic qualifications was too low. The OECD¹ is now recommending that others look to Germany and Switzerland. What is the reason for this recent interest in dual vocational education and training? On the basis of experiences from the international cooperation in which BIBB is engaged, the present article develops responses to this question and outlines the prospects for supporting the promotion of dual training in European partner countries.

Dual VET has the wind in its sails

In the light of high international levels of youth unemployment, the dual model is currently an attractive training approach that is in demand all over the world. Austria's and Germany's rates of youth unemployment are 8.0 and 7.5 percent respectively, significantly below the average EU figure of 23.5% (EU 27).² For this reason, the principle of acquiring employability skills via "work-based-learning" seems to be obtaining a certain steering function at the present time. The hope is that company-integrated and trade and industry related training will deliver possible solutions for existing deficits or problems. Work-based learning is, however, merely one of the elements that secures the successful implementation and quality of dual training models and that is of interest from an international point of view.

Quality characteristics of German vocational education and training

Ongoing continuing development and adaptation of vocational education and training to meet economic, technological and societal changes are a further fundamental characteristic exhibited by the dual system. This is primarily ensured by close cooperation and joint responsibility between the state and trade and industry (cf. e.g. GREINERT 2012). Companies invest in the training of qualified skilled workers, such training being delivered in close conjunction of labour market requirements. Relevant cost-benefit analyses (cf. e.g. SCHÖNFELD et al. 2010) demonstrate that the effects for the companies are largely positive. The quality of training is guaranteed via cross-company training and uniform examination standards, which are jointly developed by the state, trade and industry and the social partners and thus enjoy a high degree of societal acceptance. The pedagogical qualification of teaching and training staff, minimum standards for

¹ Cf. OECD (2012)

² Cf. Eurostat (April 2013; accessed: 12.06.2013).

which are laid down for company-based trainers via such mechanisms as the Ordinance on Trainer Aptitude (AEVO), constitutes a further quality characteristic (cf. ULMER/GUTSCHOW 2013).

Institutionalised research and advisory services are also key features of the profile of dual vocational education and training in Germany. Whilst vocational information and advice provide support with the choice of initial and continuing training measures and with making the transition to the employment system, VET and labour market research facilitate evidence-based management and further development of vocational education and training. Relevant instruments for the early recognition of training needs, such as model calculations, skills projections (cf. e.g. HELMRICH/ZIKA 2010) and report formats on the effectiveness of the VET system (cf. e.g. the annual Report on Vocational Education and Training drawn up by the Federal Government and the Data Report to accompany the Report on Vocational Education and Training published by BIBB)³ are in regular demand in the field of international consultancy.

Prospects for the promotion of dual training models in Europe

Foreign interest in the German training system was manifested on the occasion of the Ministerial Conference "Vocational Education and Training in Europe - Perspectives for the Young Generation". At this conference, which was staged in Berlin in December 2012, ministers with responsibility for vocational education and training in seven European countries (Spain, Italy, Portugal, Slovakia, Greece, Latvia and Germany) came together to announce their willingness to cooperate in VET and to work jointly on the development and promotion of dual, company-integrated or alternating training. The subsequent Memorandum was drawn up in accordance with the Strategic Framework for European Cooperation in Education and Training ("ET 2020"⁴), the European Strategy for Intelligent, Sustainable and Inclusive Growth and the European "Copenhagen-Bruges Process" in vocational education and training. The initiative undertaken by the seven European countries also acts as a component of the future European Alliance for Apprenticeships, to be adopted at the beginning of July 2013 on the occasion of the World Skills.

The Berlin Memorandum encompasses five fields of activity. Two of these relate to the topics of mobility and European orientation of VET as a contribution towards the European labour market and European Education Area. The aim is for mobility to apply to both training staff and trainees and assist with double qualifications or continuing training. Two further fields of activity address the management aspects and structural characteristics of vocational education and training. These areas are directed towards the role of the social partners and of trade and industry in their capacity as the partners with responsibility for VET. The focus is on financing issues, on the interlinking of school-based and company-based learning venues and on the development of labour market and skills requirements analyses.

The fifth field of activity aims to "increase the attractiveness and quality of vocational training". This mainly relates to improving vocational guidance, orientation and information and at increasing permeability. In addition to the staging of information campaigns and VET advertising measures for various target groups and the introduction of practical components into school-based teaching, the objective is to enhance the permeability of training pathways (initial training, continuing and advanced training, higher education). This field of activity thus indicates one important aspect that maintains the attractiveness of a vocational qualification— facilitating career and advancement opportunities together

³ Cf. www.bmbf.de/de/berufsbildungsbericht.php or <http://datenreport.bibb.de>

⁴ Cf. http://ec.europa.eu/education/lifelong-learning-policy/frame-work_de.htm

with the earnings options associated with these and ensuring that occupational training is not a vocational or social dead-end.

Peer learning activities, joint exchange of information and the development of pilot projects were agreed in order to implement the fields of activity. These pilot projects are evidence of the interest shown in the German training model by the European project partners. Nevertheless, these project partners face the difficult task of developing company-integrated training in countries where VET is largely school-based. For this reason, the first stage of cooperation is the establishment of bilateral working groups involving all stakeholders able to make a relevant contribution towards the promotion of dual training structures.

Attractive solutions via quality and needs orientation

The Berlin Memorandum addresses the quality characteristics of German vocational education and training and thus documents the attractiveness of dual training abroad. The further structuring of the projects will comprise flexible, needs-oriented solutions embedded within the respective national contexts. The central points of focus will be on questions relating to the creation of training places, the acquisition of companies to provide training and increasing the participation rate in initial training. These points are closely linked to economic, labour market and social policy issues.

A needs-oriented approach and the broadly based consensus that good quality training needs to adapt to a changing world (of work) on an ongoing basis are important determinants of an attractive vocational education and training system which learners and citizens perceive to be capable of becoming a viable alternative for occupational career development, for societal participation and for the securing of the requirement for skilled workers.

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Academisation or vocational drift?

International developments in the tertiary sector of education

The OECD data show an enormous increase in the number of participants in academic courses of education for the period from 1995 to 2010. In the same timeframe, occupation-related and practice-related courses in the tertiary sector of education are stagnating. The article deals with the question of whether it is justifiable to talk about an academisation in this context or whether the content of the tertiary education programmes is rather drifting into a »vocation-oriented« direction.

Dynamic developments in the tertiary sector of education

In recent years, courses of education have evolved or gained importance in the tertiary sector of education which contain elements of both vocational and academic education or have been expressly developed for vocationally qualified persons. Their goal is to either increase the attractiveness of vocational education and training or to open up access to university programmes. One of the reasons for changes in the supply of educational programmes, in particular in countries with a high percentage of university graduates, is the increasingly apparent mismatch between the qualifications imparted and the demands of the labour market. By developing and expanding practically and vocationally oriented higher education programmes, an attempt is made to meet the demands for a more pronounced orientation towards the labour market and to make the transition from training into the labour market easier for the graduates. Questions about desired and required learning outcomes and the »employability« of graduates of higher education programmes have become key topics of education policy (cf. LUTZ 2003; KRAUS 2008).

Quantitative development of certificates

Generally, the developments in the tertiary sector of education are diverse and inconsistent (cf. OECD 2008; CEDEFOP 2011; OECD 2012; OECD 2013), with a heterogeneity regarding both the quantitative development of educational programmes and the models of educational programmes in the tertiary sector of education as recorded by the ISCED-97.

While the share of tertiary A level certificates in the number of all first degrees has increased everywhere when comparing the years 1995 and 2011 in the countries selected (cf. Table) – the OECD average has increased by 19 percentage points; in Switzerland, Germany, Austria, the Czech Republic and Finland it has even more than doubled –, the developments regarding tertiary B level certificates are more subdued. A marked increase of the first degree proportion has only been recorded in Spain and Ireland (and also in New Zealand and the USA; not shown here). In Finland, however, vocational education and training programmes have been allocated to ISCED level 5A exclusively after the introduction of the polytechnics (universities of applied sciences). Only moderate increases have been recorded in Germany, Denmark and Switzerland. The OECD average in the tertiary 5B sector has stagnated at approximately eleven per cent.

The numbers thus suggest that an academisation of the education systems is taking place. DELPLACE (2014), however, is talking about a »vocational drift«. At first this doesn't seem to make sense in view of the data.

Table Comparison of first degrees at ISCED levels 5A and 5B (1995 and 2011, in %)

Country (selection)	Tertiary A (first degree)		Tertiary B (first degree)	
	1995	2011	1995	2011
Ireland	30*	43	15*	22
Spain	24	32	2	18
Australia	36*	50**	not specified	17
Switzerland	9	32	13	15
Germany	14	31***	13	14***
United Kingdom	42*	55	7*	13
Austria	10	35	not specified	12
OECD average	20	39	11	11
Denmark	25	50	8	11
Czech Republic	13	41	6	5
Poland	34*	58	not specified	1
The Netherlands	29	42	not specified	0,5
Finland	21	47	34	0

* survey year 2000; ** survey year 2010; *** break in the statistical survey between 2008 and 2009 due to a changed allocation to ISCED 2 and ISCED 5B.

Source: OECD (2013)

The empirical data according to ISCED-97

The international ISCED classification records the institutional educational programmes and educational pathways statistically and makes them internationally transparent. According to the ISCED-97 classification, the tertiary sector of education starts with level 5. ISCED 5B covers occupationally or practically oriented courses of study at technical schools, colleges of advanced vocational studies and the likes. The ISCED 5B educational programmes differ from those at the ISCED 5A level also by their shorter duration (at least two years, usually up to three years) and are generally not oriented towards an advanced university degree but rather towards immediate entry into the labour market. Master craftsman and technician certificates are statistically recorded only if they have been acquired in the context of a school-based educational programme.

The 5A level covers higher education below the doctorate level (e.g. at universities of applied sciences) while level 6 covers tertiary education as qualification for research activities.

Changes in the content of the educational programmes

That it may indeed be possible to assume a more pronounced vocational and practical orientation in the tertiary sector of education, even if it does not become apparent from the international OECD statistics, will be illustrated below using the examples of Finland, Switzerland and Australia.

FINLAND

The »polytechnics« (universities of applied sciences, UAS) are a relatively new educational institution in Finland. They were introduced at the beginning of the 1990s in order to improve the quality of vocational education and training in the tertiary sector. Starting in 1996 they gradually became an integrated part of the Finnish system of higher education. They were intended to create a vocationally oriented educational pathway as a parallel to the traditional universities. The prerequisite for access is alternatively an upper secondary school-leaving certificate, a passed examination for acquiring a university entrance qualification (matriculation certificate), a vocational qualification or corresponding foreign qualifications. In 2013 there were 138,000 students at the UAS, compared to 167,000 students enrolled at universities at the same time.⁵ To make sure that the qualifications relate to the labour market and the regional demand for skilled labour and innovation in the desired way, practical phases are an obligatory part of the courses of study. The cooperation between educational establishments, regional institutions and enterprises takes different shapes and forms; consequently, the models of practical training vary widely. The educational programmes at the Finnish UAS are allocated to ISCED level 5A although they are expressly assigned to the area of vocational education and training.

⁵ Cf. Statistics Finland, www.tilastokeskus.fi/til/kou_en.html (as of: 12.06.2014)

SWITZERLAND

Technical colleges in Switzerland are – unlike in Germany – higher education institutions explicitly established for doubly qualified applicants with professional maturity certificates.⁶ Professional maturity, as a complement to a Swiss Federal Certificate of Competence (completed apprenticeship after three to four years of dual training), permits access to a course of studies at a university of applied sciences without an entrance examination. In 2008, a total of 58.3 per cent of all persons with professional maturity certificates have made use of this option (SBFI 2014). In 2013 the number of students enrolled at Swiss universities of applied sciences was 87,291, compared to 142,170 students at universities and similar institutions.⁷

The university of applied sciences as a type of higher education establishment in Switzerland developed since the mid-1990s. The technical college reform had the special aim of improving the quality of the Swiss vocational education and training system by connecting it with the tertiary higher education sector. The origins of today's universities of applied sciences lie in the former higher technical schools, some of which have been integrated into the new universities of applied sciences. Up to that point the system of vocational education and training did not contain a connection to higher education institutions. The Swiss universities of applied sciences offer both bachelor and master degree programmes. However, unlike Finland, Switzerland still offers the so-called »higher vocational training« as a parallel to university-type institutions and universities of applied sciences. The higher vocational training is allocated to ISCED level 5B.

AUSTRALIA

Higher education programmes combining academic and vocational elements or theoretical and practical learning have evolved in the Anglo-Saxon countries, as well. A common feature of these countries is a very high proportion of graduates from ISCED 5A programmes (2010): Australia 50 per cent, UK 55 per cent, Ireland 43 per cent.

In Australia, the so-called associate degrees (ISCED 5A), which are understood to be both academically and vocationally qualifying, have been introduced as a qualification in recent years. They have been integrated into the Australian Qualifications Framework in 2004. The educational programmes leading to an associate degree are open to all those who have acquired a vocational qualification (Certificates III or IV), as well. The programme duration is two years. Access to a bachelor degree programme is possible after completion; the bachelor course can be shortened through crediting regulations. Associate degree programmes are offered both by universities and by vocational education and training institutions such as the TAFE (technical and further education). An intense nation-wide debate about the character of the associate degrees, which may also be described as a hybrid qualification due to the combination of academic/theoretical with specialized/practical content and elements of »work-based« learning, is currently underway (cf. SMITH 2013). In particular since the 1990s, a trend towards promoting permeability and facilitating transitions can be observed in the educational establishments, as well. To achieve this objective, so-called »dual sector universities« have emerged, some of them as successors of vocational colleges such as the Royal Melbourne Institute of Technology (RMIT) which has been granted

⁶ It is currently controversial whether upper secondary general school graduates should continue to be required to complete a practical year before commencing their studies. Model regulations for exceptions to this rule already exist.

⁷ Cf. Swiss Statistics, www.bfs.admin.ch/bfs/portal/de/index/themen/15/06/tab/blank/uebersicht.html (as of: 12.06.2014)

the status of university in 1992. These »dual sector universities« offer educational programmes leading both to vocational qualifications and to academic degrees.

Increasing practical vocational differentiation of tertiary educational programmes

The question about the learning outcomes of a higher education programme has become more relevant owing to the growing number of students and the increasing diversification and internationalisation of the higher education sector. In particular, the relation between key qualifications (general skills) and vocational skills is of central importance, but also the degree of orientation towards the demands of the labour market, the share of practical learning phases in the companies and the organisation of and responsibilities for curriculum development. A wide range of models has evolved from the desire to create stronger links between academic and professional/practice-related learning, increase permeability and make the pathway of vocational education more attractive. These models do not become statistically visible in the current methodology of the ISCED classification. This is caused, on the one hand, by the national allocations and, on the other hand, by the way the ISCED classification is structured. It remains to be seen whether the restructuring of the tertiary education sector in ISCED 2011 will at least increase transparency and thereby facilitate a clearer statistical differentiation between the very different educational programmes and their orientation towards different fields of education.

In any case, academisation can currently indeed be observed insofar as the statistical numbers of graduates are clearly growing in the field of the ISCED 5A programmes. A »vocational drift«, however, can be identified as well when the content of the programmes with explicit labour market orientation is examined. These programmes are characterised by a cooperation between education providers and external partners in the field of practice or by their function as academic »bridging« and further education programmes for vocationally qualified persons.

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