

## **Policies, initiatives and good practice in education and vocational training in Germany**

Federal Minister, Dr. Annette Schavan:

„In today's knowledge society, education, training and lifelong learning are the most important prerequisites for an individual's future opportunities in life and employment, as well as for social participation and social integration. Our international competitiveness depends on the quality of our institutions of higher education. Improved structures in continuing education will make Germany fit for the challenges of the future. These are the Federal Government's priorities in order to open up educational opportunities for everyone.”

Responsibility for educational oversight in Germany has to lie primarily with the states while the federal government only has a minor role. Optional kindergarten education is provided for all children between three and six years old, after which school attendance is compulsory for ten to thirteen years. Home-schooling is not permitted in any of the German Bundesländer except if a child is suffering from some illness that makes it impossible for him or her to attend school. There are also rare cases where foreign families living for a short time in Germany have been granted exemption from compulsory schooling to homeschool their children in their own language. Primary education usually lasts for four years and public schools are not stratified at this stage. In contrast, secondary education includes four types of schools based on a pupil's ability as determined by teacher recommendations: the Gymnasium includes the most gifted children and prepares students for university studies; the Realschule has a broader range of emphasis for intermediary students; the Hauptschule prepares pupils for vocational education, and the Gesamtschule or comprehensive school combines the three approaches. In order to enter a university, high school students are required to take the Abitur examination, however students possessing a diploma from a vocational school may also apply to enter. A special system of apprenticeship called Duale Ausbildung allows pupils in vocational training to learn in a company as well as in a state-run school. Although Germany has had a history of a strong educational system, recent PISA student assessments demonstrated a weakness in certain subjects. In the test of 31 countries in the year 2000, Germany ranked 21st in reading and 20th in both mathematics and the natural sciences, prompting calls for reform.

The graduates can start a professional career with an apprenticeship in the Berufsschule (vocational school). The Berufsschule is normally attended twice a week during a two, three, or three-and-a-half year apprenticeship; the other days are spent working at a company. This should bring the students knowledge of theory and practice. Notice that the apprenticeship can only be started if a company accepts the apprentice. After this he will be registered on a list at the Industrie- und Handelskammer IHK (board of trade). During the apprenticeship he is a part-employee of the company and receives a salary from the company. After successful passing of the Berufsschule and the exit exams of the IHK, he/she receives a certificate and is ready for a professional career up to a low management level. In some areas the apprenticeship is teaching skills that are required by law (special positions in a bank, assistance of a lawyer).

In four states (Saarland, Saxony, Schleswig-Holstein and Rhineland-Palatinate), children have to attend two years (grades 5 and 6) in Orientierungsstufe ("orientation phase"), a special school type that follows the Grundschule, and is intended to help decide whether the student should be sent on to Hauptschule, Realschule or Gymnasium (or in any case Gesamtschule). Primary school teachers or Orientierungsstufe teachers counsel parents on where to send their child. Depending on the state, parents or teachers make the final decision. In Berlin and Brandenburg the Grundschule includes grades 5 and 6 which then serve the same purpose as the Orientierungsstufe.

Also, in states without Orientierungsstufe, grades 5 and 6 are seen as an orientation phase in which initial decisions can be reversed. Achievements in the subjects of Mathematics, Sciences, German, and the chosen foreign language (commonly English, French, Russian or Latin), are considered to be most important in the decision about the school that the child will attend.

In Germany, the 16 states have the exclusive responsibility in the field of education. The federal parliament and the federal government can influence the educational system only by financial aid (to the

states). Therefore, there are many different school systems; however, in every state the starting point is Grundschule (elementary school) for a period of 4 years (6 in Berlin and Brandenburg). English is compulsory statewide in secondary schools. Many schools also offer volunteer study groups for learning other languages. It is often problematic for families to move from one state to another, because there are extremely different curricula for nearly every subject.

Adults who fail to complete their education have the option of attending an AbendGymnasium or AbendRealschule (Evening Gymnasium) later in life.

In Germany, education is the responsibility of the states (Länder) and part of their constitutional sovereignty (Kulturhoheit der Länder). Teachers are hired by the Ministry of Education for the state and usually are employed for life after a certain period (which, however, is not comparable in timeframe nor competitiveness to the typical tenure track, e.g. in the US). A parents' council is elected to voice the parents' views to the school's administration. Each class elects one or two "Klassensprecher" (class presidents, if two are elected usually one is male and the other female), the class presidents meet several times a year as the "Schülerrat" (students' council). School administration is the responsibility of the teachers (who will receive a reduction in their teaching obligations if they participate).

After much public debate about Germany's international ranking (PISA - Programme for International Student Assessment), some things are beginning to change. There has been a trend towards a less ideological discussion on how to develop schools. These are some of the new trends:

- Establishing federal standards on quality of teaching
- More practical orientation in teacher training
- Transfer of some responsibility from the Kultusministerium (Ministry of Education) to local school

Since the 1990s, a few changes have already been taking place in many schools:

- Introduction of bilingual education in some subjects
- Experimentation with different styles of teaching
- Equipping all schools with computers and Internet access
- Creation of local school philosophy and teaching goals ("Schulprogramm"), to be evaluated regularly
- Reduction of Gymnasium school years (Abitur after grade 12) and introduction of afternoon periods as in many other western countries

The credit system is unknown in Germany so far, although it is being introduced with the Bologna process that is intended to unify education and degrees for all EU states. What counts at the end of one's studies is a bundle of certificates ("Scheine") issued by the professors proving that the required courses (and/or exams) were successfully taken. With a few exceptions students may not receive certificates for courses they attend before officially immatriculating at the university (i.e. while at Gymnasium), although their attendance may sometimes be counted as such. Usually there are few required specific courses, rather students choose from a more or less broad range of classes in their field of interest, while this varies greatly upon the choice of subject. Once a student has acquired the needed number of such certificates and can (if he or she is a Magister student) verify his or her regular attendance at a minimum number of optional courses, he or she can decide to register for the final examinations. In many cases, the grades of those certificates are completely discarded and the final diploma grade consists only of the grades of the final exams and master thesis. This can potentially impair the student's motivation to achieve excellence during their studies, although most students try to aim for higher scores in order to comply with requirements for BAFöG or scholarships, or, simply, for vanity.

After about 4-5 years (depending on how a student arranges the courses he or she takes over the course of his studies, and on whether he or she has to repeat courses) a Fachhochschule student has a complete education and can go right into working life. Fachhochschule graduates received traditionally a title that starts with "Dipl." (Diploma) and ends with "(FH)", e.g. "Dipl. Ing. (FH)" for a graduate engineer from a Fachhochschule. The FH Diploma is roughly equivalent to a Bachelor degree. An FH Diploma does not usually qualify the holder for a Ph.D. program directly -- many universities require an additional entrance exam or participation in theoretical classes from FH candidates. The last point is based on the history. When FHs or U-o-A-S were set up the professors were mainly teachers from higher schools but did not hold a doctorate. This has completely changed since the end of the eighties,

but professors of classic universities still regard themselves as "the real professors", which indeed is no longer true.

Due to the Bologna process the bachelor and master degrees are introduced to classic universities and universities of applied sciences in the same way.

Degrees: Most courses lead up to a diploma called Diplom or Magister and these are equivalent to the Masters degree in other countries (after a minimum of 4 to 5 years). The doctoral degree usually takes another 3-5 years, with no formal classes, but independent research under the tutelage of a single professor. Most doctoral candidates work as teaching- or research assistants, and are paid a reasonably competitive salary. This is different in medicine, where an M.D. is (effectively) required for work and hence a more streamlined process applies.

Recently, changes related to the so-called Bologna-Agreement have started taking place to install a more internationally acknowledged system, which includes new course structures - the (hitherto unknown) Bachelor degree and the Master degree - and ECTS credits. These changes have not been forced on the universities and the hope has been that they will develop them from the bottom up. So far, students have been reluctant to start these new courses because they know that within Germany, employers are not used to them and prefer the well-known system. In the winter semester of 2001, only 5% of all students aspired to complete either a bachelor or master degree, but this has changed as many universities and universities of applied sciences change their course offerings to exclusively provide only bachelor or master degree certificates (e.g. Bremen or Erfurt).

In addition, there are the courses leading to Staatsexamen (state examinations), e. g. for lawyers and teachers, that qualify for entry into German civil service, but which are not

Vocational education is an important part of the education systems in Germany. A law (the Berufsausbildungsgesetz) was passed in 1969 which regulated and unified the vocational training system and codified the shared responsibility of the state, the unions, associations and chambers of trade and industry. The system is very popular in modern Germany: in 2001, two thirds of young people aged under 22 began an apprenticeship, and 78% of them completed it, meaning that approximately 51% of all young people under 22 have completed an apprenticeship. One in three companies offered apprenticeships in 2003; in 2004 the government signed a pledge with industrial unions that all companies except very small ones must take on apprentices.

The vocational education systems in the other German speaking countries are very similar to the German system and a vocational qualification from one country is generally also recognized in the other states within this area.

Apprenticeships are part of Germany's successful dual education system, and as such form an integral part of many people's working life. Young people can learn one of 356 (2005) apprenticeship occupations (Ausbildungsberufe), such as Doctor's Assistant, Banker, Dispensing Optician or Oven Builder. The dual system means that apprentices spend most of their time in companies and the rest in formal education. Usually, they work for three to four days a week in the company and then spend one or two days at a vocational school (Berufsschule). These Berufsschulen have been part of the education system since the 19th century.

The precise skills and theory taught on apprenticeships are strictly regulated, meaning that everyone who has, for example, had an apprenticeship as an Industriekaufmann (literally an Industrial Business Administrator: someone who works in an industrial company as a personnel assistant or accountant, etc) has learned the same skills and had the same courses in procurement and stocking up, cost and activity accounting, staffing, accounting procedures, production, profit and loss accounting and various other subjects. The employer is responsible for the entire programme; apprentices are not allowed to be employed and have only an apprenticeship contract. The time taken is also regulated; each occupation learnt takes a different time, but the average is 35 months. People who have not taken this apprenticeship or passed a special final examination at the Industrial Chamber of Commerce are not allowed to call themselves an Industriekaufmann; the same is true for all the 356 occupations.

Although the dual education system is generally considered to be exemplary, an increasing number of young people are taking vocational education and training (VET) courses at training sites and schools rather than in real companies, as for various reasons, companies are becoming less willing to take on apprentices. To counter this, the government considered making it compulsory for firms to take on apprentices. This idea, however, was dropped when the trade associations agreed to a voluntary

training pact.

The reasons behind the lack of places on dual education courses include:

- companies which take on apprentices have to follow a large number of regulations
- the training itself is very expensive
- many school leavers have only a low level of education and are not able to keep up with the course
- firms are often highly specialised and unable to train apprentices in all the required areas

Recently some attempts have been made to overcome these difficulties, but as yet with no success.

Two solutions put forward so far are "contractual education" (Auftragsausbildung) and state-run courses. The former would involve companies training apprentices which they do not plan to employ; the contract would also not be an employment contract. The latter solution would involve training outside of companies, in schools and colleges.

Professor Weiß, deputy president of BIBB (Federal Institute for Vocational Education and Training):

"The dual vocational training system is flexible, efficient and innovative."

With its focus on "Vocational Education and Training as the Path of the Future: Mobilise potential, shape change", the 5th BIBB Congress in Düsseldorf drew nearly 2,000 vocational education and training experts. As BIBB's head of research pointed out, the course of this conference shows that Germany's 'dual' vocational training system (which combines part-time vocational schooling with practical work experience) is flexible enough to adjust to changing requirements and conditions. "It is more flexible, efficient and innovative than some critics would have us believe," said Professor Weiß. „The discussions held during this conference have shown that the amount and quality of the vocational training on offer have to be viewed in context with one another. Demand for quality management instruments is growing - as tools for ensuring quality not only in public schools but also in enterprises. This demand is being driven by internal customers in the individual enterprise and the company's own skilled labour requirements. When companies have to compete over young skilled labour, quality will also be an important trump card that will help them ensure that their own future manpower requirements are met.

Although regulations are important, the relationship between instructor and trainee is surely considerably more important for ensuring quality on location, in enterprises and in schools. Qualified instruction personnel is indispensable to this. The decision whether to overhaul the Ordinance on Trainer Aptitude is on the agenda - as is revising the initial teacher training system. Work is currently underway on developing advanced training regulations for the occupation 'vocational educator'. The aim here must always be to prepare and professionalize instruction personnel for changes in their tasks and roles - for instance, as coaches in the work process, as experts in dealing with 'disadvantaged individuals', as educators and organizers of learning processes.

In this connection, collaboration between learning venues has also always been and will continue to be on the agenda. Digital media have opened the door to new models. The virtualization of learning is under discussion. For example, it is conceivable that trainees log into learning modules from home or their training place at the enterprise providing their training and earn supplementary qualifications online. This also offers a better means to solve problems with the provision of schooling. Virtualization offers new, innovative solutions to problems arising in connection with the decline in the size of age cohorts, long commutes and even schooling for splinter occupations. We want to make use of these opportunities and test them with the help of models." said in his Speech, Professor Dr Reinhold Weiß Deputy President and Head of Research of the Federal Institute for Vocational Education and Training (BIBB) at the 5th BIBB Congress : "Vocational Education and Training as the Path of the Future: Mobilise potential, shape change", Düsseldorf, 14 September 2007.