

Work-based learning: Experiences of BIBB in international VET cooperation

Dear Ladies and Gentlemen,

1) Work-based learning: a dazzling magic formula

Work-based learning is at the heart of our understanding of the dual system in Germany, it is incorporated within our formal system of initial VET. Vocational education and training that provides a combination of school- and work-based learning is considered to be a successful strategy for training skilled workers in line with economic needs – not just in Germany but around the world. In order to fight youth unemployment it became a major issue in European politics and a magic formula or good practice to foster quality and to strengthen the ties of vocational education to the labour market's needs.

In education policy as well as in international consulting and cooperation, there is an increasing demand for concepts and tools that help VET experts, policymakers and advisors to take stock of the state of VET systems and to propose options for adjustment. Work-based learning seems to be among the most required concepts. However, there is no single or simple definition of work-based learning. The term in itself is dazzling and ranges from apprenticeship contracts for 2 or 3 years to internships in companies for a few weeks only. Moreover, there is relatively weak empirical evidence in regard to what works, how and why in international VET cooperation in a cross-country comparison. Given the particularities of each country as well as the fairly specific evidence that research produces, it is under discussion to what extent there can be a “blueprint” to the implementation of work-based learning in our partner countries. Having this in mind, I took stock of BIBB's cooperation network with around 30 partners worldwide and I opted to present BIBB's experience in a specific VET cooperation as a basis for reflection on the development, possibilities and limitations of implementing work-based learning in those national settings that derive from a more school-based system. The example I chose to share with you is **Mexico** –a non-European country but a G20 and OECD member.

2) Promotion of work-based learning in Mexico

In Mexico, training and securing a skilled workforce is becoming more significant than ever. The traditional Mexican vocational education and training is a school-based system which comprises three semesters of basic training, three semesters with a greater degree of specialisation and one semester for a compulsory company internship. In order to guarantee a better transition from school to work, Mexico has developed its own form of vocational education and training system based on the German dual model and translated into a "tropical" version by means of adapting it to the regional conditions. With the backing of the Federal Ministry of Education and Research, BIBB has been promoting this process by assisting Mexico within the scope of a bilateral co-operation agreement since 2009.

The origin of the dual model of vocational education and training in Mexico goes back to the cooperation in the Federal State of "Estado de México" between **CONALEP**, the National College of Technical Professional Education and main institution responsible for VET in Mexico, and **Mercedes-Benz** during the years 1993 – 1998. CONALEP's vocational school students from the occupations of car mechanic, industrial plant electronics technician and electrical mechanic participated in this co-operation project at the time. Between 1999 and 2005, the project continued to operate with a few supplier firms only due to the fact that Mercedes-Benz had introduced a recruitment freeze.

At the end of 2008, CONALEP took the decision to reintroduce this dual training system in Estado de México as those pilot projects from the 1990s had found appropriate employment for their participating students. Hence, the National Directorate-General of CONALEP signed a co-operation agreement with BIBB in 2009 to foster the exchange of expertise and the revitalisation and firmer establishment of the dual training system in Mexico.

From 2009, BIBB has assisted in the development of a demand-driven and employment-oriented vocational training system strengthening the co-operation between schools, enterprises and inter-company training centres. The main focus of the co-operation was placed from the very beginning on developing dual occupational standards, the **modernisation of the occupational fields** "information technology" and "mechatronics" as well as on the **exchange of expertise** about the main characteristics of the dual system and the roles of the stakeholders involved. Thus, a considerable number of workshops, seminars, lectures, study visits, meetings of guest researchers and other activities were arranged in Germany and in Mexico. At local level CONALEP worked together with ALTRATEC, a "German-Mexican Alliance for Technology Transfer", to outline new national sets of regulations and teaching contents for the dual training occupations.

Today, the dual vocational education and training model initiated with support from BIBB is a three year programme and composed of 75 per cent practical training in the company and 25 per cent school-based instruction and e-learning. Hence, young people begin their regular vocational education and training on CONALEP premises and after roughly two semesters they meet the requirements and have the option to switch to the dual training system at a company. Nowadays, nine Federal States provide this kind of dual training in co-operation with CONALEP and 146 enterprises. Among them are 95 Mexican companies, 29 German/Austrian companies and 22 of them are companies based in Non-European countries.

Experience gained in the Mexican dual VET shows that a combination of school- and company-based training is possible if trade and industry are involved. The constant increase in the number of trainees in the companies (from 57 in 2008 to 1.200 at the end of 2013) and the participation of 150 enterprises today as well as the objective of the government to include 1.500 enterprises in 2018 provide visible signs of success in the "tropical dual training". Support of the Federal Minister of Education in Mexico on behalf of the President is crucial for the implementation process.

3) Driving and hampering factors for the implementation of work-based learning

In co-operation with BIBB and further local and German stakeholders such as the German-Mexican Chamber of Industry and Commerce, Mexico has found a way of adopting the main characteristics of the dual system of VET into its own education and training system.

This implementation of work-based learning in Mexico assisted by German institutions was possible only because the government and the private sector share responsibility for VET, allowing the social partners increasingly to take part in this approach.

The example shows how relevant it is that policymakers give significance to labour-market oriented VET reforms and that there is a critical number of (German) enterprises that show an interest in improving the basis for recruiting skilled staff. In the case of Mexico this has led to the development of a momentum that explores the possibilities of scaling-up the successful pilot practices into the general system. In terms of promoting enterprise-relationships, the German-Mexican Chamber of Industry and Commerce "CAMEXA" plays a crucial role. The visible and growing involvement of Mexican businesses in the dual vocational training system during the past years can be regarded as a result of the awareness caused by activities of Mexican and German institutions and co-operations. And although the role of trade unions in the Mexican VET system is still undefined, the Mexican government increasingly cooperates with the national employers association "COPARMEX" in designing and implementing vocational training at regional and national level. All this happened during a period of 20 years with gradual increase of policy involvement on the Mexican and German side.

As the distance between vocational schools and companies providing training is far in Mexico, the country has found a smart solution to deal with vocational school content via the use of e-media during the time when students are learning in the companies. A multimedia teaching and learning software is installed as an e-learning platform for all the companies providing training. After students are accepted as apprentices by a company, the theoretical part of dual training is imparted from that time on via this e-learning platform at the work-place and enriches the work-based learning process. The trainees spend at least one hour per day working with the E-learning program and are also subjected to regular progress examinations.

Having in mind that international VET co-operation is not a one-way but preferably a joint learning process, the imparting of theoretical content via e-learning platforms could as well be an interesting "good practice" for some regions and training occupations in Germany, too, where there is a substantial lack of apprentices.

The development of the dual training model in Mexico clearly shows that the German model cannot be adopted on a 1-to-1 basis. The specific focus in Mexico is on the so-called process of "tropicalización". This means the adaptation and further development of elements of the German VET system to meet the existing general conditions of the Mexican VET system.

Nevertheless, there are still a number of challenges to deal with in the years ahead, if the dual system of VET in Mexico is planned to be expanded further. Amongst these are

- the lack of a legal framework on a national level, to define the role of employers' and employee's representatives as well as the Federal state as partners in the design and implementation of dual training regulations,
- the low social acceptance of vocational training,
- the still weak participation of the employee's side and
- changes in the political context as well as in the partner institution.

4) Lessons learnt and perspectives

The process of "tropicalizing" the dual training model presents a systematic approach jointly owned by German and Mexican stakeholders to translate key elements of the dual system. This approach looks promising and sustainable. Nevertheless, driving or hampering factors such as flexibility in intercultural contexts, the importance of existing bilateral economic relations and the role of the trade unions need to be further analysed and determined.

A challenge that can be found in many of the co-operations in Europe and worldwide with regard to the implementation of work-based learning is the necessity to accept that there are quite different conceptions of and conditions for the realisation of work-based learning. As the example of Mexico shows, there might be favourable conditions and a general willingness of employers to provide work-based learning which is even associated with an apprenticeship contract. In other countries, it might be extremely difficult to involve companies. In such cases, the countries need to find ways and leverage to enhance the commitment from the company's side. This might often lead to solutions that are below the standards we share in dual systems. In many cases there will be traineeships or shorter periods of learning-on-the-job. Nevertheless, these could be acceptable starting points as long as they become part of an HR strategy focussing on recruiting qualified staff and not exploiting young people as cheap workforce only.

As shown, this kind of long-term advisory service and the experience gained are crucial to BIBB's ability to offer specialist knowledge on VET as well as expertise in conducting dialogues, designing work processes with stakeholders in VET or supporting them in a process of change. Currently, with the establishment of the Central Office for international VET cooperation we profit from our ongoing cooperations and advisory services. But we still need to know more about the overall experiences and knowledge available from the last decades of international VET cooperation in order to gather insights on a more systematic level and to further elaborate our approaches. In this aim, it is an asset that we can make use of BIBB's networks on a national and international level.

It is fair to predict that work-based learning will remain an important matter in our international cooperation. It is more difficult to indicate the most suitable path to its implementation. There are various options. Whatever the decision will be, when it comes to international cooperation it will mean a long and continuing process of sharing experience, adapting new practices, involving economic and political stakeholders and opting for a process of learning from each other.

Thank you for your attention.