Apprenticeships in Germany: modernising the Dual System

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Abstract

Purpose This paper proposes to investigate the modernisation of the German Dual System for apprenticeships.

Design/methodology/approach The paper looks at the history of the development of the Dual System and looks at the challenges it faces today.

Findings The paper finds that Germany, with its long standing tradition of dual apprenticeships and the reputation of maintaining its practices rather than changing them, has joined the vocational education and training reform agenda. It also finds that reforms seem inevitable in the face of a partial failure of the traditional mechanisms operating within the existing apprenticeship system.

Originality/value This paper is useful in highlighting the challenges faced by a traditional apprenticeship system.

Keywords Apprenticeships, Germany, Management strategy

Paper type Research paper

Introduction

The German Dual System has often been discussed by looking at it from a comparative perspective (e.g. Deissinger, 1994, 2001a, 2002, 2004a; Ryan, 2001; Harris and Deissinger, 2003; Coffey and Rhodes, 2002; Raggatt, 1988; Burke and Reuling, 2000). Obviously, there are major discrepancies between the Anglo-Saxon model of vocational education and training (VET) – stressing “open training markets” and competence-based training (CBT) – and the German “institutional” approach with its long-standing apprenticeship tradition. Nevertheless, there is a slowly emerging debate within German VET research circling around the potential benefits and risks of CBT and modularisation (e.g. Ertl, 2000a, 2002; Deissinger, 2002, 2004b). This may lead us to the impression that countries are more or less willing to learn from each other in the context of contemporary vocational training reform. However, if one takes a closer look at Germany, problems within the VET system so far have been identified and tackled by using traditional patterns. This includes modernisation of training schemes as well as attempts to induce companies to offer more training places to school leavers. All this happens “within the system”, and it is only in the last couple of years that Germany has begun to reach out for new, more far-reaching solutions. The debate circling around this new policy even includes the modernisation of the long-established vocational training law (Deissinger, 1996), which stands for a policy approach and a policy culture using “institution-based” traditions and “shared sets of practices” between different interest groups (Young, 2003, pp. 231, 234). While the government has initiated a major legislative response towards the “crisis” of the Dual System employers and government have agreed on a “Training Pact” to increase the number of apprenticeship places and to establish apprenticeship co-operations not only to improve the quantity but also the quality of initial vocational training.

Historical development of the German apprenticeship system

In the perception of external observers, Germany is a country where “firms are distinguished by a very high proportion of the workforce having intermediate level qualifications” based on practical training (Steedman, 1998, p. 81; Marsden and Ryan, 1995). The reason for this is that vocational training mostly occurs in the Dual System (Greinert, 1994) which functions as the major non-academic route for German school leavers by giving them formal access to the labour market as skilled workers, craftsmen or clerks (Bynner and Roberts, 1991)[1]. Moreover, apprenticeships are culturally strong, because they recur to a long-standing tradition of craft training dating back to the Middle Ages (Deissinger, 1994). Also, the genesis of the modern vocational training system, taking shape at the end of the nineteenth century, can be seen as resulting from “neo-mercantilistic” activities to revitalise the ancient craft system (Zabeck, 2004, p. 126f.). Although, in the process of industrialisation, guild privileges had been seen as obstacles to economic prosperity, the Craft Regulation Act passed in 1897 (Schlüter and Stratmann, 1985, pp. 210ff.) provided for craft chambers as institutions of public law authorised to determine the minimum standards of vocational training as well as to function as examining bodies for journeymen and master craftsmen. The notion of the skilled craftsman became rooted within a system based on the principle of self-government[2].

The “dual” character of the training system emerged during the first two decades of the twentieth century when the vocational part-time schools replaced the continuation schools (although compulsion was only enforced in 1938) to accompany apprenticeships and to give young people education “through the vocation”. In the 1920s and copying the craft tradition to a large extent, the chambers of industry and commerce (IHK) established final examinations for industrial workers which became mandatory after 1937 (Muth, 1985; Schütte, 1992, pp. 79ff.; Zabeck, 2004, p. 127)[3]. Although clearly more systematic than in the craft sector, industrial training developed in the context of a corporatist framework, adopting the occupational orientation of initial training, which up to now has remained the pivotal trait of apprenticeships (Deissinger, 1998; Greinert, 2004a, p. 24). It is astonishing that neither pragmatic motives of educational policy, resulting in the extension of full-time vocational schools, nor the critical educational movement during the 1960s and 1970s (Zabeck, 1975a; Deissinger, 1998, pp. 25ff.) succeeded in undermining the Dual System and with it the principle of employer responsibility for occupation-based training schemes.

Like the 1953 Craft Regulation Act (*Handwerksordnung*), which still represents the above-mentioned tradition, the 1969 Vocational Training Act (*Berufsbildungsgesetz*) – as the central legislative instrument for in-company initial training in Germany – is a federal act and therefore only governs training at the workplace, which means that it does not interfere with the responsibility of the federal states for vocational education in schools[4]. The Act is essentially a specified labour law since its central object is the indenture between the apprentice and the training company. However, the definition of training as a learning and working relationship between a firm and a young person points both to the controlling function of the state as well as to an educational bias within the training process.

Although vocational training is placed in the hands of firms and chambers (Zabeck, 1975b) the Vocational Training Act defines the framework where it has to take place. The Act takes account of the traditional features of guild apprenticeships while at the

same time submitting in-company training to homogeneous, supervisable and examinable standards. The chambers functioning as the “competent authorities” (*zuständige Stellen*) are in charge of monitoring in-company training and setting up examinations for journeymen, skilled industrial workers, commercial clerks (trained in the Dual System) as well as industrial and craft masters[5]. Therefore, the German approach quite clearly relies on learning pathways located in a specific institutional community (Young, 2003, p. 234). This includes an “enabling legislation” – quite in contrast to the UK – which unambiguously stipulates “what apprenticeship is and is not” (Ryan, 2001, p. 134).

Principles of apprenticeships within the Dual System of initial vocational training

Against the background of its history and the cultural sets of practices resulting from these, the German apprenticeship system is an institution-based approach based on two major principles which are responsible for a specific “philosophy” of learning and training. The first principle is the dualism of learning sites, i.e. the apprenticeship has both on- and off-the-job components and is conducted partly in the vocational school and in the training company. This fosters a training culture that regards vocational training not only as a specific form of employment, but also as a form of education. The educational part is mainly realised in the compulsory part-time vocational school (*Berufsschule*), where – in addition to occupation-based subjects or (more recently) “learning fields” (Bader and Sloane, 2000) – general subjects such as German, English or History have to be taken[6].

The second, even more outstanding principle is the vocational principle (*Berufsprinzip*) which stands for a holistic notion of competence referring to more than just a specific workplace (Harney, 1985; Deissinger, 1998). It encompasses a system of 350 “skilled recognised occupations” (*Ausbildungsberufe*), nearly all of them exclusively trained within the Dual System, which function as national qualification standards according to the Vocational Training Act. Therefore, the vocational principle is associated with a specific quality of didactical as well as institutional arrangements defining the “application requirements” for skilled labour (Kutscha, 1992, p. 537):

- Occupations are seen as “more or less complex combinations of special achievements” which relate to formal qualifications typical of a given trade. Each occupation has to be integrally structured and relatively job-independent. Both the branch and the individual value of the qualification obtained at the end of the training process represent “special qualities” both in relation to other occupations and to qualifications in higher education (Beck *et al.*, 1980, pp. 20 ff.). This implies that initial training is in principal non-modular in so far as the “whole occupation” has to be trained and as there is a mandatory final examination referring to these competences at the end of the training period (Deissinger, 1998).
- Training occupations function as the starting point as well as the target of a clearly defined training process and are based on what may be called an “organisational picture” (Brater, 1981, p. 32) standardised by state statutes and thus removing training from the specific character of individual workplaces. The quantity and quality of skills and knowledge to be imparted in the training

process are supervised and validated through intermediate and final examinations as well as certified in a way acceptable to the labour market. Apprenticeships hence are closely associated with the notion of homogeneous training courses based on standardised training ordinances (Deissinger, 2001b).

The vocational principle underlines the “process character” of the German apprenticeship system and its strong focus on the “input” or “contents” aspect. The majority of training schemes are so-called “mono occupations” which neither allow for any kind of specialisation, nor for a differentiation of the training time. It is assumed that a broad basis of elementary vocational qualifications leads to maximising flexibility of workers and mobility between workplaces and firms or even branches. This concept also becomes evident in the training schemes in the metal and electrical sectors, which were issued in the late 1980s: specialisation only takes place after an initial training period of normally one year which is common to a whole range of occupations related with each other (Stratmann and Schlösser, 1990, pp. 266-9). The current policy of modernisation, however, goes further and tries to integrate dynamically new developments in the world of work – in particular information technology (IT) profiles – into the existing system of vocational training (Müller *et al.*, 1997). The year 2003 saw the emergence of seven new training occupations and 21 schemes underwent revision procedures[7]. This illustrates a significant increase in new training occupations, since between 1996 and 2001 only three new occupations were endorsed.

Contemporary challenges for the apprenticeship system

It has been maintained above that the “vocational principle” may be identified as the “defining element” (Miller Idriss, 2002, p. 473) of the German apprenticeship system. On the other hand, it becomes evident that vocational training is embedded into a “stress field” between private interests and private commitment on the one hand, and public and state intervention, representing the wish to secure as many training opportunities as possible as well as standards of training outcomes, on the other (Kell, 1999). This has led critics to point to the obsolescence of traditional apprenticeship training in the face of a rapidly mutating economic and social environment (e.g. Geissler, 1991).

Beyond ideological debates even protagonists of the Dual System have to admit that the current situation relating to the training market puts strain on the existing VET system (Deissinger, 2004b; Deissinger and Hellwig, 2004). Between 2002 and 2003 the total supply of training opportunities fell by 2.6 per cent and the number of signed training contracts by 2.1 per cent (Federal Institute of Vocational Training, 2004a; Federal Ministry of Education and Research, 2004a). Even the craft sector suffered a decrease by 3.2 per cent and in the public service sector it was even higher with 6.9 per cent. The Federal Ministry of Education and Research concludes in its “Report on Vocational Education and Training for the Year 2004” (*Berufsbildungsbericht*) that this serious decline has structural reasons beyond cyclical downturns of the economy (Federal Ministry of Education and Research, 2004a, p. 15):

- New industrial sectors cannot compensate for the loss of work and training places in traditional industries (Baethge, 2001) so rapidly in order to provide a

sufficient supply of training places that meets the requirements of both industry and young individuals.

- The alarming results of the PISA study (OECD, 2000, 2004) illustrate that standards of general education are in need of improvement and the majority of German school leavers (especially those graduating from a lower secondary school) are obviously not well equipped with skills required for undertaking an apprenticeship. Companies often bring forward this argument to rationalise their decision to reduce training places beyond the cost argument.
- With new technologies and new forms of work organisation, qualification requirements on the labour market have risen, leading to higher standards concerning the occupational aptitude for skilled work. Consequently, young people with educational deficits are unable to fulfil these new requirements.

According to Greinert (2004b, p. 112) three traditional core mechanisms of the German VET system seem to be failing with regard to new economic and social challenges. First, the “recruiting mechanism”, which should provide a training and labour market with qualified apprentices, seems to fail because companies prefer to recruit employees from outside the Dual System. In consequence, opportunities for skilled workers (*Facharbeiter*) to climb to a position of a technical assistant (*Technischer Angestellter*) are gradually disappearing and qualified school leavers prefer pathways outside the Dual System instead[8]. Second, the “funding mechanism” seems to fail because the stabilisation of the Dual System is cost-intensive, especially with regard to the new federal states in the East of Germany, which yet have not been successful in implementing an appropriate funding scheme. Third, problems have not been solved with respect to the “mechanism of learning places” (*Lernortmechanismus*) that includes periods of theoretical learning in the compulsory vocational part-time school and periods of practical learning in the workplace. Critics argue that the co-operation between vocational schools and companies has never been truly successful. In their view, vocational schools also fail to cope effectively with generating knowledge-based competencies instead of merely skills based on experience (Euler, 2004). The increasing social demand for and aspirations towards general education at the expense of vocational education even seems to endanger this mechanism. Moreover, employers are critical about not being able to recruit apprentices via the training market that meet their expectations and they associate apprenticeships with an additional financial burden and not with a useful future investment (Pätzold and Wahle, 2003, p. 473). This is a particularly serious problem in a situation where the supply of training places regularly fails to meet the demand and employers seem to lose interest in the apprenticeship system. As a consequence the Dual System seems to lose its “exclusive status” as the major pathway into skilled employment, a phenomenon that is reflected in the growing number of so-called “substitutional measures” outside the regular apprenticeship system (Schur, 2004).

Coping with the crisis: policy initiatives

All the issues discussed above raise the question whether it is necessary and possible to develop both supporting measures and alternative mechanisms to secure the supply of training opportunities and, at the same time, to modernise the system and to make it more adaptive to a more and more instable framework in which it has to operate.

Reform initiatives have been undertaken in various areas both on the federal and federal state level. Hence the government just amended the 1969 Vocational Training Act. The objectives of this reform, passed by the Federal Parliament on January 27 2005, read as follows (Knaut, 2004, p. 318; Greinert, 2004a, pp. 22f.):

- increasing the number of young people taking up vocational training in the Dual System;
- securing international competitiveness through training;
- promoting regional accountability for the training supply and the training quality;
- improving the transition between other sub-systems of VET and the Dual System, including vocational full-time schools and vocational preparation courses; and
- enhancing and intensifying the cooperation between companies and vocational schools.

To achieve these objectives organisational benchmarks are bound to undergo fundamental, although not “revolutionary” changes as it is intended in the new Vocational Training Act (*Berufsbildungsreformgesetz*), which tackles the following issues:

- inclusion of vocational preparation schemes within the scope of regulation of the law and with it the implementation of an appropriate system of qualification modules;
- transferability of credits obtained in school-based VET via agreements between the federal states and the federal government;
- internationalisation of VET by providing opportunities for apprentices to undergo part of their vocational training abroad; and
- modernisation of chamber examinations by including the “extended” final examination (a modular type of assessment) in the list of recognised types of final examinations.

Although the new Vocational Training Act is supposed to put flexibility and internationalisation on the reform agenda, it has already now become exposed to criticism especially from employers. According to a position paper of the Curatorship for VET of German Industry (*Kuratorium der deutschen Wirtschaft für Berufsbildung*) the amendment threatens the established system and announces a radical change of its principles. This reproach refers to the bridges the Reform Act is supposed to build between the so far separated spheres of full-time VET and the Dual System (Feller, 2002; Deissinger, 2004b). Also, the chambers and their national organisations refuse the idea that full-time VET should automatically lead to admission to the chamber examination (Greinert, 2004a, p. 28)[9].

Critics argue that the valorisation of qualifications gained in full-time vocational schools ignores the fact that graduates of these courses lack practical experience and therefore could result in restricting the employability of school leavers (Knaut, 2004, p. 319). Furthermore, they contend that the opportunity to learn a “recognised skilled occupation” (*Ausbildungsberuf*) off-the-job, i.e. entirely in full-time school-based courses, endangers the apprenticeship system by undermining one of its most

significant principles, the dualism of learning sites, which requires apprenticeships to be conducted both on and off the job. Thus full-time school-based training should be equated to dual training only as an exception and not as a general alternative (Kuratorium der deutschen Wirtschaft für Berufsbildung, 2004, p. 1). In the perception of industry, deficits of the amendment extend to the disregard of quality criteria and competence standards for apprenticeships and the lack of transition between academic and vocational education.

Although the reform of the Vocational Training Act may be seen as its crucial activity at the moment, the Federal Government has also taken a number of compensating measures to cope with the problems of the apprenticeship system. Hereby training policy is intent, in the first place, to support industry in its efforts to supply training places to the shrinking training market. One example is the introduction of the concept of “training place developers” (*Ausbildungsplatzentwickler*), who help companies with administrative work associated with the provision and delivery of apprenticeship training. Furthermore, their function extends to establishing and improving co-operation between vocational schools and companies. Another programme for regional joint training provision is the “STARegio” scheme which means that non-training companies are encouraged and guided in the process of training. “STARegio” includes administrative options to externally manage an apprenticeship, the set-up of new joint training partnerships between different companies (*Ausbildungsverbünde*), as well as the establishment and support of regional training networks (Federal Institute of Vocational Training, 2004b).

In spring 2004 the government introduced the “Act to Secure Provision of Training Places” (*Berufsausbildungssicherungsgesetz*) and announced a training levy for companies with more than ten employees and with a training quota of less than 7 per cent (i.e. the share of apprentices among all employees). According to the Act they would have to pay a levy to be redistributed to companies engaged in training or used for the encouragement of non-training companies to enter the Dual System. The political move behind the Act (supported by the Social Democrats and the Green Party) has to be seen against the fact that at the end of September 2003 only 6,500 school leavers out of the still searching 35,000 could be provided with a training opportunity. The announcement of the Act and the training levy caused an outcry among employers who questioned the efficiency of a levy and argued that this would lead to even fewer training places, due to the fact that large companies rather comply with the levy. Although the Federal Parliament passed the Act in May 2004, the Federal Government finally decided not to put the Act in force until 2005.

The motivation for this was not only strong opposition from employers and chambers, from vocational teachers as well as trainers, but also the promise of industry to provide more training places for the forthcoming training year. In order to prevent the government from implementing the training levy employers agreed on a “National Training Pact for Skills and Training” (*Nationaler Pakt für Ausbildung und Fachkräftenachwuchs in Deutschland*) in which they promised to provide 30,000 additional apprenticeship places per annum for the next three years. At the same time, the government asserted to increase the number of training places in the federal administration by 20 per cent and to exert pressure on self-employing institutions within its responsibility to follow suit. As part of the “Training Pact” a programme for companies, organisations and individuals with the title “Adopt a Training Place”

(*Patenschaften für Ausbildung*) has been initiated (Federal Ministry of Education and Research, 2004b). The programme aims at new occupational branches, underprivileged young people and regions with a great deficit of training places. Another initiative in this respect is the provision of 25,000 places for young people to acquire on-the-job entry qualifications. These new qualifications can be acquired within six to 12 months and have so far been set up in ten major branches of the German economy. These qualifications are accredited by the chambers and function as transition pathways into apprenticeships since they are rated as part of a subsequent formal training course. Employers also agreed on promoting campaigns, publications and events to secure training places and to co-operate between regions. In order to improve the co-operation between vocational schools, companies, private and public training providers industry has now made an offer to send mentors to local schools and providers whose duty it shall be to support and guide during the apprenticeships.

Conclusions

It is interesting and promising at the same time that Germany, with its long-standing tradition of dual apprenticeships and the reputation of maintaining its practices rather than changing them, has joined the VET reform agenda. Its national, more evolutionary strategy, however, seems a long distance behind more radical or revolutionary ways, which have been adopted in Anglophone countries. One of the most interesting issues in the national German context is the challenge to redefine the borders between initial training and further training (or lifelong learning respectively), but also the relationship between full-time and part-time (dual) VET. With its institutional demarcations and more structured system (Ryan, 2001), Germany certainly faces more difficulties than countries which have pursued a more flexible and open approach to the problem of vocational training – including notions of an “open training market” (Harris, 2001). However, reforms seem inevitable in the face of a partial failure of the traditional mechanisms operating within the existing apprenticeship system, and in a situation when Germany – with its reputation as a “skills respect” society[10] – is joining those countries that have always struggled to convince the private sector of the benefits of formal vocational training.

Notes

1. Due to the “three tier” school system (Ertl, 2000B), access into higher education is lower in Germany than in most other European countries. Currently, 2.02 million young people are enrolled as students in the German higher education system (with 70 per cent studying at a university) as against some 1.58 million in the Dual System of initial vocational training (Federal Statistical Office, 2004).
2. The 1897 Act also confined the technical qualification required for the training of apprentices to skilled journeymen. Indentures became general practice in the craft sector as well as the three year training period. By reviving the apprenticeship tradition of the pre industrial age, in 1908, the right to train apprentices was even restricted to craft masters.
3. The difference between “craft” and “industrial” is a very important one in the German economy: Although both sectors use the chamber organisation for various purposes, craft occupations, mainly in small and medium sized companies, are based on a separate law in the tradition of the 1897 Act. This means, e.g. that for most craft occupations (defined as such in the Craft Regulation Act) a master craftsman qualification is still required for establishing a business.

4. See sections 20; 30; 70ff. of the Grundgesetz (Basic Law) of the Federal Republic of Germany.
5. See sections 36 and 44 VTA respectively: "The competent body shall establish boards of examiners to be responsible for setting final examinations. (...)"; "In the absence of other provisions the competent body shall arrange for the provision of initial training within the framework of this Act". The tasks taken over by the chambers also include the appointment of training counsellors, the qualifying and examining of trainers, the approval of the prolongation or reduction of the training period, the keeping of the register of indentures and the settling of conflicts between training companies and apprentices (Greinert, 1994, pp. 87 f.).
6. Whereas in Britain, on the job training – even under the new Modern Apprenticeship Scheme (Ryan, 2001) – is complemented by off the job training on a more or less voluntary basis, in Germany it is mandatory. The State Education Acts provide the legislative framework and make sure that school leavers in employment or in a course of training are kept within the educational system for a limited period of time. Everybody under the age of 18 not in higher or further education is compelled to attend the local part time vocational school on a sandwich or day release basis. Everybody commencing an apprenticeship is required to stay on at school until the end of the training period (Greinert, 1994, pp. 97ff.).
7. Among the new occupations are the "car mechatronic" and the "investment clerk". Both new technologies and the growing demand for specialisation may be seen as the triggering factors for the creation of such occupations (see www.bibb.de).
8. In 1993 the quota of first year students was 25.5 per cent and increased by 14.1 per cent to 39.6 per cent in 2003. Also, the number of "A level holders" has increased by 6 per cent in the last ten years (Federal Statistical Office, 2003). On the other hand it still seems remarkable that grammar school leavers undertake apprenticeships as an alternative to university courses. In 2003, their proportion stood at nearly 14 per cent of all apprentices (Federal Institute of Vocational Training, 2004a).
9. Traditionally, there has always been a clear preference on the side of companies for the Dual System and its graduates. For instance, in 2002 only half of all full time VET students in Germany attended courses leading to "occupational" qualifications considered to be portable on the labour market. However, with the slackening training market and the ongoing discussion on alternative pathways and the accreditation of school based learning with respect to occupational qualifications vocational full time schools could become more occupation oriented. This would require, however, improvement in their relevance both for skilled employment and for a subsequent apprenticeship course. Individual approaches can be observed in federal states, such as Baden Wurttemberg (Niephaus, 1999; Deissinger and Ruf, 2003).
10. See *Campus Review* (2003).

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