

HUBERT ERTL (University of Oxford) &  
PETER F. E. SLOANE (University of Paderborn)

---

## The German Training System and the World of Work: The Transfer Potential of the *Lernfeldkonzept*

---

### 1 Introduction

The German system of vocational education has been characterised as a ‘high skills society’ with national competitiveness primarily based on high productivity - manufacturing a wide range of high-quality goods, relying predominantly on scientific elites and on high-quality intermediate skills. The system of skill formation that serves the ‘high skills society’ generates wide skills distribution and high levels of social trust and produces high incomes and relatively high wage equality (Green 2001, 67-89 and 142f.).

At the heart of the German model of skill formation lies the dual system of vocational education and training. Comparativists have extensively discussed this system for some decades now. The main reasons for the prolonged foreign interest in the dual system are the constantly high participation rates (it prepares about two-thirds of German youth for working life) and the comparatively low youth unemployment rates associated with it (the system provides a comparatively smooth transition of young people from initial training to continuous employment). In fact, the German Economic Institute (*Institut der deutschen Wirtschaft*) has pointed out that the dual system has produced ‘harmonious results’ in the training market recently, balancing supply and demand for training places (IDW 2002, 2).

However, there are increasingly clear indications that the German model of the high skills society and with it the dual system are at risk (cf. for instance, Green 2001, 148-151 and Culpepper 1999, 44-48). In fact, the re-occurring discussions surrounding the ‘crisis of the dual system’ in the inner-German debate of academics and researchers are almost as old as the system itself (cf. Wüstenbecker 1997, 14-19 and Baethge 1999, 127-136). The future prospects of the system are the subject of great controversy (cf. Deissinger 2001b and Greinert 2001). Irrespective of the position one supports in this debate, the need to modernise the dual system seems widely acknowledged by researchers and educationists.<sup>1</sup>

---

<sup>1</sup> An indication for this observation is the substantial number of edited books in which leading educationists describe the changes the dual system is facing and the ways in which reform and modernisation should lead. The titles of these publications are indicative: Beck & Achtenhagen (eds.) (1996): *Berufserziehung im Umbruch* (Vocational Education in Upheaval); Schläffke & Weiss (1996): *Das Duale System ... Qualität und Reformbedarf* (The Dual System ... Quality and Need for Reform); Schmidt et al. (1997): *Das Duale System der Berufsausbildung – ein ‚Exportschlager‘ in der Krise?* (The Dual System of Vocational Training – an Export Best-seller in Crisis?); Euler & Sloane (1997): *Duales System im Umbruch. Eine Bestandsaufnahme der Modernisierungsdebatte* (Dual System in Upheaval. A Stock-taking of the Debate on Modernisation); Euler (1998a): *Berufliches Lernen im Wandel* (Vocational Learning in Transition); Flitner et al. (1999): *Wege aus der Ausbildungskrise*. (Solutions for the Training Crisis); Arnold (2003): *Berufspädagogik ohne Beruf* (Vocational Education without the Vocation).

One particular aim of current modernisation processes is to make vocational training more relevant for the world of work. This aim specifically refers to the demands for a reform of the school-based part of the dual system. The debate on the role of vocational colleges (*Berufsschulen*) in Germany is ongoing and is part of a comprehensive discussion on the crisis of the dual system and its institutions (Schmidt 1996, 2). The main areas of debate regarding the *Berufsschule* seem to be its didactic shortcomings and the ‘identity crises’ caused by improving in-company training in the larger training enterprises and by the increasing importance of external training centres. Training in larger enterprises is often conducted in classroom-situations. Therefore, the distinct role of vocational colleges is not clear anymore. The same point can be made for external training centres which are often run by the relevant chambers. Often training at these centres is very similar to school-based training, making it harder for colleges to justify their role in the dual system. These problems of vocational colleges were already identified by Kloss (1985) in the mid-1980s.

The transfer of real-life challenges in work contexts into the teaching and learning arrangements of school-based contexts is one of the questions that has to be addressed in all systems of vocational training. The transfer of changing challenges posed by an economic system that is more than ever characterised by processes of globalisation seems to be a challenge that affects all Western European countries. For most European countries it can be said that the ‘[...] development of close links between school-based education/training and the workplace [represents a major] concern of both government policy makers and the social partners’ (Green et al. 1999, 179).

While the qualitative importance of school-based training contexts increases throughout Europe (Green et al. 1999, 199), it appears that different national training systems have found diverging answers to the question of how the interplay between the world of work and vocational education can be organised. From an institutional point of view, the different roles school contexts play within training systems are an indicator of this diversity.

The way in which the transfer of work-related challenges into school-based training contexts takes place seems to be a key element in the development of what Brown, Green & Lauder (2001) have described as a system of ‘high skills formation’. However, there seems to be a lack of systematic investigation into how this transfer takes place and how it can be improved in order to accommodate the challenges of the dynamic economic world. In order to start such an investigation in the German context it seems necessary to outline the main features and principles of the dual system.

## **2 Some key features and principles of the German training system**

The traditions, legal foundations and structures of the German dual system have been the matter of an extensive amount of international literature (cf., for instance, Raggatt 1988, HMI 1995 and CEDEFOP 1995). However, what has been neglected too often in the past is that it

is not the structure of the system itself that secures its perceived success and hence its attraction to foreign observers, but a set of underlying, interdependent principles that make the system work (cf. Kutscha, 1999).

## **2.1 Principle of duality**

Vocational training requirements in Germany consist of two basic parts. Learning processes in training companies focus on learning at the workplace or instruction in company training departments with an emphasis on practical elements of the training occupation. The vocational college provides general and vocational education in order to deepen and supplement on-the-job training.

Trainees spend about three or four days a week on in-company training and up to two days a week at vocational colleges. Whereas federal law regulates the former, the latter falls under the legislation of the *Länder* (for instance skeleton curricula – *Rahmenlehrpläne*). Harmonisation processes are in place to integrate both parts of the training and to ensure the comparability of the provisions in the 16 *Länder*. The term ‘dual’ refers primarily to the division of training into two separate training environments, each regulated by its own distinct legislators.

However, the principle of duality goes beyond the division of training into two training venues. The duality of the structure is also reflected in systematic features such as the role and status of training personnel, the funding regime and the supervision of training processes (cf. Ertl 2002).

## **2.2 Principle of corporatism**

In terms of its regulative structure, the dual system may be best described as a state-controlled market model (cf. Greinert 1995, chapter 2) in which the state sets the guidelines for the co-operation of employers and trade unions. This model is regarded as an efficient way of limiting the risks of ‘market failure’ on the one hand and ‘state failure’ on the other (Kutscha 1995, 10).

In this model the state delegates regulatory competence for the training system to corporatist bodies. The most important of these bodies are the local, self-governing Chambers of Industry and Commerce, the Crafts Chambers, the Chambers of Agriculture and the Associations of Professions. They have the status of ‘competent bodies’ (*zuständige Stellen*) and play a crucial role in the organisation, administration and examination of vocational training. More precisely, these bodies act as intermediate organisations between state and companies and put training laws and regulations into practice. The Chambers have the status of public autonomous agencies that oversee the legal and regulatory norms of vocational education and training within their sphere of responsibility according to the legal guidelines set by the state.

Following the ‘principle of voluntariness’, no employer is obliged to take on trainees. However, all firms have to register with a Chamber and those wishing to provide training must be approved by the Chamber as a training company. The approval depends on the equipment and resources of the company as well as the qualifications and experience of the trainers working for the company. Furthermore, the local Chamber supervises the organisation and assessment of intermediate and final examinations and acts as an awarding body for vocational qualifications.

A further example reflecting the principle of corporatism in the training sector is the composition of regulating and executive bodies of the dual system. For instance, supervising and examining bodies are set up by the Chambers and consist of equal numbers of employers’ representatives, employees’ representatives and vocational college teachers. The most important of these bodies at the executive level of the training system are the vocational training committee and the board of examiners.

### **2.3 ‘Concept of the vocation’**

The concept of ‘education by and in work’ of training in dual structures is closely bound to the ‘concept of the vocation’ (*Berufskonzept*). The translation of the German term *Beruf* poses difficulties. Neither ‘vocation’ nor ‘profession’ is congruent with the German term, but the former is used in this paper because the latter is too closely bound to academic occupations (such as lawyers and doctors).

Most importantly however, the concept of the vocation places the individual’s capability to work and act competently in a vocational environment (*berufliche Handlungsfähigkeit*) as the overarching aim of vocational education and training. Education as part of the learner’s personal development has been a constant feature of vocational education in Germany. Further, this concept reflects the need to prepare young people not only for a small number of specific tasks at one company, but to provide a qualification applicable in many employment contexts and responsive to the changing economic and social environments of a whole occupational field.

The ‘concept of the vocation’ and underlying social standards are reflected in the Vocational Training Act (*BBiG*) of 1969 and other training regulations. For instance, paragraph 1 (2) of the *BBiG* prescribes a broad basis of vocational education, a well-ordered course of training and the acquisition of sufficient vocational experience for training in a state-recognised training occupation. Furthermore, the attainment of a skilled worker qualification within a recognised occupation and subsequent employment in a related vocational sector are the basis for classification in the wage system (for instance, minimum wages and salaries) and for measures of social security (for instance unemployment benefit) in Germany.

The following categorisation of the key features of the ‘concept of the vocation’ comprises the major elements for what is regarded – in the German context – as the necessary framework for a comprehensive course of training:

Table 1: **Key features of the ‘concept of the vocation’ in Germany** (cf. Kloas 1997)

<p>➤ <b>Qualified work:</b> Professional, methodical and social competences for planning, executing and controlling vocational tasks</p> <p>➤ <b>Broad vocational basis:</b> Multi-layered, marketable pattern of competences relevant not only to the training company through a broad knowledge basis <i>and</i> skills specifically related to the occupation</p> <p>➤ <b>Adaptable skills:</b> Skills are responsive to a changing vocational environment and represent an appropriate basis for further training and lifelong learning</p> <p>➤ <b>Mobility:</b> National, state-recognised occupations decrease workers' dependence on one employer; labour mobility is enhanced</p> <p>➤ <b>Transparency:</b> Recognised occupations and their value in the educational system are accepted and well-known by employers and employees</p> <p>➤ <b>Social Security:</b> Qualification in a recognised occupation ensures a high degree of social security and determines to a large extent the social status</p>
--

## 2.4 Societal consensus

The past success of the dual system is due to the effective functioning of these underlying principles and – to the same degree – to the broad societal consensus on these principles (Green 2001). The principle of consensus in Germany on the value of education and training and strong commitment to it was expressed by British observers through the term ‘training culture’ (Brown & Evans 1994, 5). In more general terms, the consensus on the concepts and principles of vocational training at all levels of society is regarded as an expression of a living democracy and of a high commitment to training within society (Schmidt 1996, 2).

However, the broad acceptance of these principles by all influential social groups in Germany makes the reform of the training system difficult. It seems much easier to preserve an existing consensus than to reach a new one. The complexity of decision-making procedures, in which all the stakeholders have their say, tends to underpin the status quo. The federalist structure of the German state contributes to this tendency. Furthermore, it appears that the current ‘training crisis’ endangers the future of the culture of consensus that all major stakeholders have (formally and informally) subscribed to hitherto (cf. Ertl & Sloane 2003). Most importantly, the employer’s complain about the lack of flexibility in training provisions. Flexibility in this context means primarily:

- the responsiveness of training provision to the changing work environment. This responsiveness is necessary in order to meet the latest skill demands which emphasise comprehensive skills and knowledge structures.
- the responsiveness of training provisions to the varying degrees of personal potential of trainees in the form of individualised training pathways. This individualisation is also concerned with increasingly individualised pedagogical approaches and assessment procedures (Sloane 1997, 231 and 1999, 103).

The basis of these complaints is the conviction – shared not merely among employers – that training processes need to take work processes more than systematically into account. In other words the connection between the challenges faced at the workplace and training need to be strengthened. As we have seen, duality and corporatism constitute important principles that determine training processes in the dual system. However, the regulative structure of the system implies that the direct influence of the world of work is restricted to the in-company part of the training. Therefore, the demand for a closer link to the challenges of the workplace is primarily relevant for school-based training.

Since this connection needs to take into account the rationales, structures and practices in both work and school contexts, and due to the assumption that the connection needs to change over time, the term transfer processes is applied. In the following section, the nature of these transfer processes is analysed with reference to the German context. Also, actual and potential improvements of the transfer processes as a consequence of a school-based reform are discussed.

### 3 Transfer processes and the concept of areas of learning

#### 3.1 Elements of transfer processes

In order to conceptualise the transfer processes, three interdependent elements might be identified:

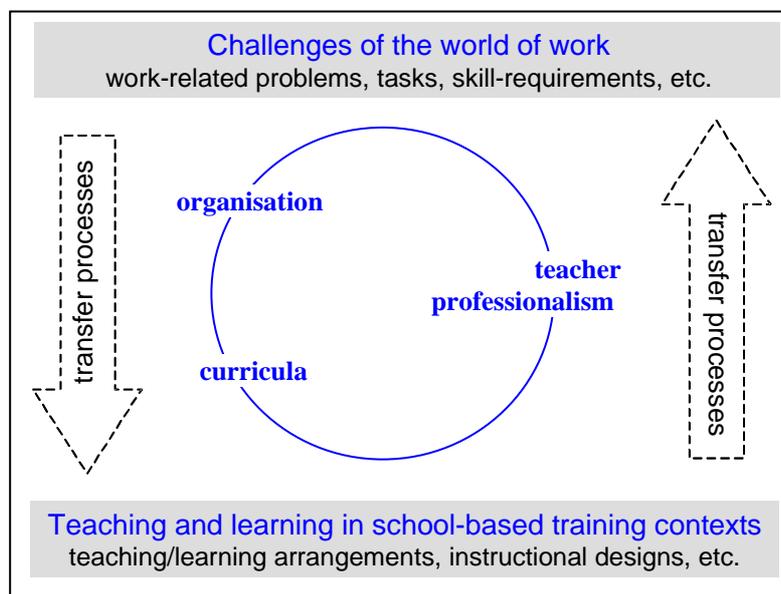


Figure 1: The world of work and school-based training contexts

Systems of vocational training are *organised* by a variety of institutions as well as the rules and agreements that regulate the co-operation of these institutional actors. In economic theory, the term ‘institutions’ comprises both the institutions themselves and the rules that define the relationships between them. Institutions determine the way in which work

challenges enter teaching and training contexts. In most European countries, employers' and employees' associations are involved to varying degrees in identifying typical work situations for which trainees should be prepared. As we have seen, the principle of corporatism is at the heart of institutional framework of the German training system and provides the social partners with a high degree of influence. Schools and training institutions interpret the guidelines set out by the authorities as well as social partners and decide on the way in which they react to the changing challenges from the world of work.

*Curricula* translate the knowledge and skills regarded as relevant by the institutional actors into the formulation of contents and aims of school-based training. Curricula include documents such as training plans and lesson plans. There are different ways to formulate challenges of the world of work in curricula: they might be outcome-oriented (describing the tasks trainees should be able to perform) or input-oriented (describing the way in which the training processes should be conducted). In Germany, curricula are traditionally expressed in terms of inputs such as teachers' and trainers' qualifications, class contact hours, and training contents (Koch & Reuling 1998). The different ways of conceptualising curricula influence transfer processes between the world of work and school-based training contexts.

From a more theoretical perspective, such curricula need to provide increased opportunities for learners to integrate their developing academic and work knowledge, as they develop their learning/work identities through repeated episodes of 'boundary crossing' between school and work (Griffiths & Guile 2001). We should expect, therefore, to see the emergence of new curriculum forms designed to cope with the increasing complexity of these boundary crossing episodes (Tuomi-Gröhn & Engeström 2003).

*Teachers* translate the contents and aims set out in the curricula into teaching and learning situations on a day-to-day basis. In addition, they are sometimes part of the institutional framework since they assume roles in school administration and curricula commissions. The way in which they fulfil these functions depends on their qualifications and their interpretations of their professional role. The degree to which teachers have contact with the world of work varies; some of them might consider this contact as less important than pedagogical skills and knowledge. Hence, elements of teacher professionalism influence the transfer processes.

It needs to be emphasised that these three areas do not influence the transfer processes in isolation from each other. For instance in Germany, teachers have traditionally seen their role in implementing curricular guidelines that were set by the competent authorities. For the context of vocational education this meant that many teachers did not regard it as their responsibility to ensure that what they taught is relevant for the challenges their students were facing at the workplace. As we will see, this self-perception of the teachers has been challenged by a recent reform initiative in German vocational colleges.

### 3.2 The ‘Lernfeldkonzept’

As demonstrated elsewhere, the dual system has proven to be sufficiently equipped to overcome a number of crises in the past (Ertl 2000). The means by which the stability of the system has been ensured since its formal establishment in 1969 have been cautious processes of modernisation within existing provisions. These processes seem to gather speed when the attractiveness of provisions for companies and young people decreases.

Arguably the most important step of reform in the current crisis is the so-called ‘Lernfeldkonzept’. The term *Lernfelder* can be roughly translated as ‘learning areas’. The concept was introduced formally by a decision of the Conference of Education Ministers (*Kultusministerkonferenz*) in 1999 (KMK 1999). It applies the notions of didactic innovations such as activity-oriented and comprehensive learning to the context of vocational colleges.

The main idea of this concept is the reconstruction and/or simulation of vocational processes at vocational colleges. Tasks and activities the trainees are typically confronted with in training companies (‘working area’) are the basis for the construction of ‘learning arrangements’ (learning situations at vocational colleges) that constitute a learning area (Sloane 2001). Learning areas also draw on the knowledge that is represented in conventional school subjects. However, the traditional subjects are transformed into a cross-curricular structure in which comprehensive tasks have to be fulfilled and real-life problems have to be solved by the trainees. In sum, learning areas represent pedagogically adapted and enriched vocational processes derived from actual work contexts (Kremer & Sloane 2000, 73). The connection between learning and working areas and the way in which learning arrangements are constructed is illustrated in Figure 2.

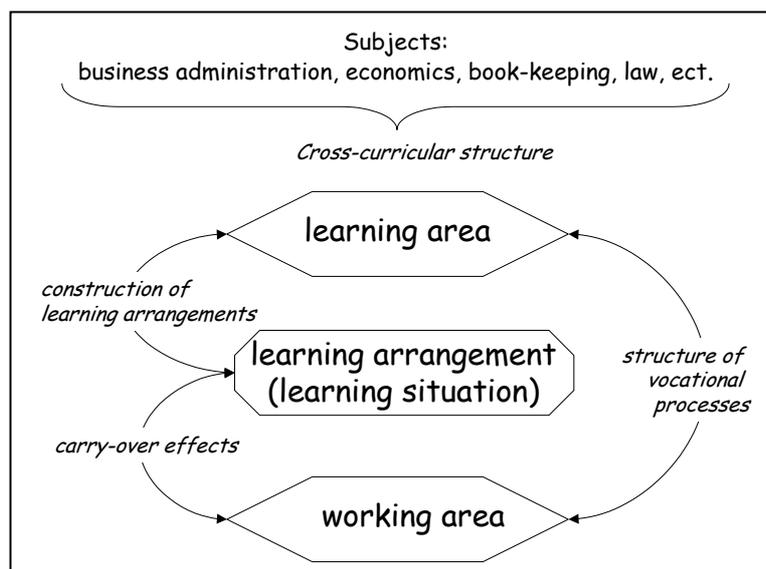


Figure 2: Connection between learning areas and work contexts (cf. Kremer & Sloane 2000, 74)

### 3.3 The impact of the ‘Lernfeldkonzept’ on the transfer processes

There are a number of conditions for the successful implementation of the concept of learning areas. These conditions and the resulting changes in the set-up of college-based training provisions have an impact on the three transfer elements conceptualised earlier. The changes outlined in the following illustrate the interdependence of the transfer elements.

First and foremost, the ‘Lernfeldkonzept’ is a *curricular* reform. Whereas curricula for vocational colleges used to be strongly prescriptive in terms of contents, aims and time allocated to contents and aims, curricula developed on the basis of the concept of areas of learning are formulated in an open way. The processes of curriculum construction are transferred from the state level to the level of individual colleges. This entails that actors at the political level, who assumed the responsibility of developing the prescriptive curricula in the past, now only set broad guidelines for the teaching at vocational colleges. On the basis of these guidelines workable aims and operational contents for teaching are developed at the level of the individual colleges.

This means that the work and the role of *teachers* at vocational colleges have changed. The translation of curricula into instructional designs becomes part of the work of teachers. This task can only be fulfilled in close co-operation with the teaching staff, which has consequences for the *organisation* of vocational colleges. For instance, teachers have to co-operate as a team in order develop schedules and lessons plans on the basis of the curricular guidelines.

In summary, the responsibilities of teachers increase and the tasks they are asked to fulfil become more complex. These are typical indicators for a changing notion of *professionalism* of teachers and for job enrichment. Also, the organisation of colleges has to change to initiate and support the teamwork of teachers. This change is part of a wider reshuffling of responsibilities in the institutional set-up of vocational training. The changes are illustrated in the following figure.

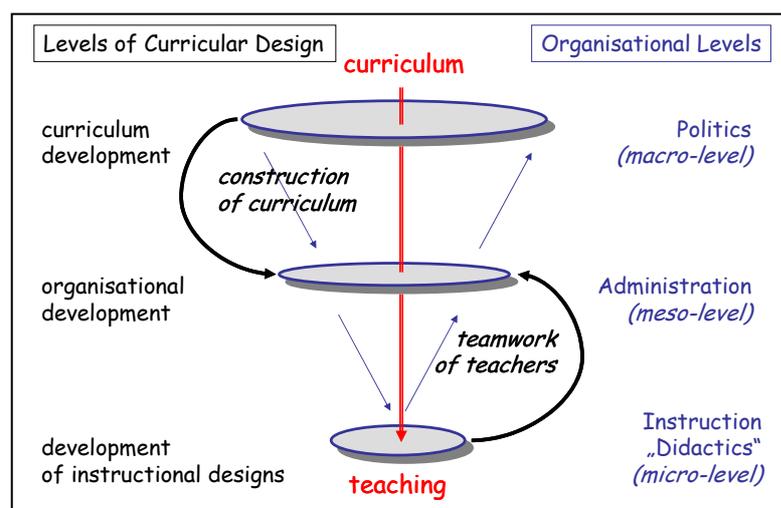


Figure 3: Curricular and organisational changes in the ‘Lernfeldkonzept’

In order to be able to plan teaching and learning processes on the basis of vague curricular guidelines, teachers have to take real-life work contexts into account. As hinted at in the previous section, learning areas represent pedagogically adapted and enriched vocational processes derived from actual work contexts. This entails that teachers have to co-operate with training companies while planning their lessons. The long-standing organisational and pedagogical challenge of co-operation between the two main venues of training in the dual system has become more pressing than ever (cf. research documented in Euler 1998b and 1999). Keeping in touch with developments in the economy and establishing contact with training companies becomes a central task for vocational colleges and teachers.

Thus, the potential changes in the transfer mechanism between the world of work and college-based training context resulting from the introduction of the *Lernfeldkonzept* can be summarised as follows:

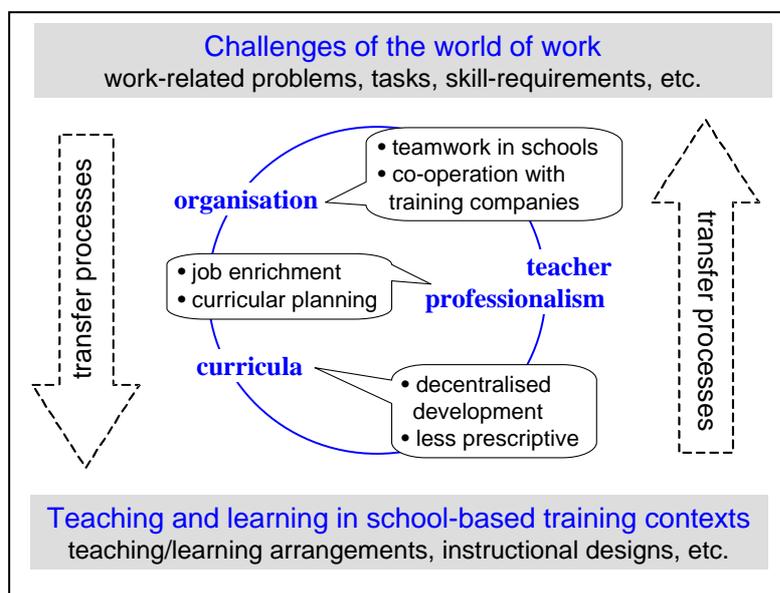


Figure 4: The Lernfeldkonzept: Changing transfer processes between the world of work and college-based training contexts

#### 4 Conclusions: Challenges posed by the *Lernfeldkonzept*

In the light of the current 'training crisis', the *Lernfeldkonzept* is regarded as one way of improving the dual system, in particular in terms of its responsiveness towards the challenges of modern workplaces. Therefore, it is hoped that it increases the willingness of companies to offer training places and thus to overcome the quantitative crisis of the system.

However, research into the implementation of the concept has shown that a variety of problems qualify the potentials of the *Lernfeldkonzept* to improve existing and initiate new

transfer processes between vocational colleges and the world of work (cf. ISB 2003 and HELP 2003).<sup>2</sup>

In terms of *organisational* aspects, the headship of colleges seems to pose a particular problem. The headship traditionally instructed and supervised the work of teachers; often in more or less directive ways. The main means for instruction and supervision was the strongly prescriptive curriculum which could be used to set the criteria for the evaluation of teachers' work. The new curricula cannot be used for this purpose anymore since they leave it to the teachers to specify teaching and learning processes. In order to fulfil this task they need organisational support in terms of time to specify contents and aims of instructions, equipment and materials to implement more comprehensive learning arrangements, and arenas to meet and to work together. This kind of support can only be provided by the headship of colleges which is faced with a whole new range of responsibilities. As a consequence it is necessary to extend the headship of the traditional single headmistress or headmaster and to create new positions for deputy heads. Considering the empirical evidence, these new kinds of headship teams are in existence at most colleges now but the necessary changes in the relationship between headship and teachers – from a directive to a supportive one – has not been made in all cases. As a result, teachers often complain about the lack of time and space for teamwork with colleagues, whereas headships argue that curriculum development measures are beyond its influence and control.

In terms of the *teachers' professionalism* it appears to pose a challenge for many teachers to change their work routines and to make teamwork a central part of the preparation of teaching and learning processes. The traditional view of teachers is that of a 'single combatant' who fights the elements, that is, the college bureaucracy, students, adverse teaching conditions and the curriculum. The *Lernfeldkonzept*, however, challenges this view because it requires teachers to co-operate beyond their specific subjects. With its emphasis on typical real-life problems likely to be faced by trainees in their training companies, the teachers' main task in the *Lernfeldkonzept* is the development of learning arrangements that model these problems in a meaningful way. For this development process, expertise from across the subjects taught by a whole group of teachers is required. This notion departs radically from traditional views on professionalism. The departure and the process of working as a member of a group of teachers is often regarded by teachers – more often covertly than overtly – as problematic if not impossible. The pessimistic view of teachers is also often linked to a lack of direct contact to local companies and up-to-date knowledge of processes in the world of work.

Finally, there seem to be a number of problems in the conceptualisation and implementation of the new type of *curricula*. In particular, teachers complain about the lack of workable

---

<sup>2</sup> The findings outlined here are drawn from the final reports of two pilot projects that investigated the implementation of the *Lernfeldkonzept*, Nele (*Neue Unterrichtsstrukturen und Lernkonzepte durch berufliches Lernen in Lernfeldern* – new instructional designs and learning concepts in vocational learning in areas of learning) and Wislok (*Wissensforen als Instrument der Lernortkooperation* – knowledge arenas as instruments for the co-operation of learning venues) (cf. ISB 2003 and HELP 2003). Further, results derived from the student project 'The *Lernfeldkonzept* as an initiator of transfer processes', conducted at the University of Paderborn during the winter term 2003/04 were used.

starting point for connecting curricular areas of learning with the world of work. In some cases, areas of learning are formulated in ways that make it difficult for teachers to identify their relevance for the world of work. These conceptual problems seem to have been particularly severe in the earliest generation of new curricular. It could be argued that the cooperation with experts from the world of work remains of particular importance for developing curricular guidelines – a notion that has not lost its value with the introduction of the *Lernfeldkonzept*. These problems were intensified by a lack of information for teachers about the ideas of the concept.

In summary, an array of potentials of the *Lernfeldkonzept* to initiate new ways and strengthen existing ways of developing transfer processes between the world of work and college-based training in the dual system can be identified. However, these potentials depend on far-reaching changes in the organisational, curricular and professional set-up of college-based training; changes that have not yet taken place to a sufficient degree in most German vocational colleges.

## References

- Arnold, R. (ed.) (2003). *Berufspädagogik ohne Beruf. Berufspädagogische, bildungspolitische und internationale Perspektiven*. Baltmannsweiler: Schneider Verlag.
- Baethge, M. (1999). Strukturwandel in der Berufsbildung und korporatistisches Handlungsmodell: ein Deutungsversuch für die aktuelle Krise des dualen Ausbildungssystems. In: Tramm et al. (1999), 106-125.
- Beck, K. & Achtenhagen, F. (eds.) (1996). *Berufserziehung im Umbruch. Didaktische Herausforderungen und Ansätze zu ihrer Bewältigung*. Weinheim: Beltz.
- Brown, A. & Evans, K. (1994). Changing the Training Culture: Lessons from Anglo-German Comparisons of Vocational Education and Training. In *British Journal of Education and Work*, Vol. 7, No. 2, 5-15.
- Brown, P., Green, A., and Lauder, H. (eds.) (2001). *High Skills. Globalization, Competitiveness and Skill Formation*. Oxford: Oxford University Press.
- CEDEFOP (1995). *Vocational Education and Training in the Federal Republic of Germany*. Berlin: CEDEFOP.
- Culpepper, P. D. (1999). The Future of the High-Skill Equilibrium in Germany. In *Oxford Review of Economic Policy*, Vol. 15, No. 1, 43-59.
- Deissinger, T. (ed.) (2001a). *Berufliche Bildung zwischen nationaler Tradition und globaler Entwicklung*. Baden-Baden: Nomos.
- Deissinger, T. (2001b). Zum Problem der historisch-kulturellen Bedingtheit von Berufsbildungssystemen – Gibt es eine „Vorbildfunktion“ des deutschen Dualen Systems im europäischen Kontext? In: Deissinger (2001a), 13-44.

Ertl, H. (2000). *Modularisation of Vocational Education in Europe: NVQs and GNVQs as a Model for the Reform of Initial Training Provisions in Germany?* Wallingford: Symposium Books.

Ertl, H. (2002). *The Role of European Union Programmes and Approaches to Modularisation in Vocational Education: Fragmentation or Integration?* Munich: Utz.

Ertl, H. & Sloane, P. F. E. (2003). *Crisis and Reform in German Vocational Education and Training: The Lernfeldkonzept*. In *Learning and Skills Research*, Vol. 6, No. 4, 25-27.

Euler, D. (ed.) (1998a). *Berufliches Lernen im Wandel – Konsequenzen für die Lernorte? Dokumentation des 3. Forums Berufsbildungsforschung 1997 an der Friedrich-Alexander-Universität Erlangen-Nürnberg*. Nürnberg: Institut für Arbeitsmarkt- und Berufsforschung der Bundesanstalt für Arbeit.

Euler, D. (1998b). *Zwischen Engagement und Exkulpation – Über die (fehlenden) Bedingungen einer Lernortkooperation*. Nürnberg: Lehrstuhl für Pädagogik, insb. Wirtschaftspädagogik an der Universität Erlangen-Nürnberg.

Euler, D. (1999). *Kooperation der Lernorte in der Berufsbildung. Expertise für die Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung im Auftrag des Bundesministeriums für Bildung und Forschung*. Nürnberg: Lehrstuhl für Pädagogik, insb. Wirtschaftspädagogik an der Universität Erlangen-Nürnberg.

Euler, D. & Sloane, P.F.E. (eds.) (1997). *Duales System im Umbruch. Eine Bestandsaufnahme der Modernisierungsdebatte*. Pfaffenweiler: Centaurus-Verl.-Ges.

Flitner, A., Petry, C. & Richter, I. (eds.) (1999). *Wege aus der Ausbildungskrise. Memorandum des Forums „Jugend – Bildung – Arbeit“ mit Untersuchungsergebnissen des Instituts für Arbeitsmarkt- und Berufsforschung der Bundesanstalt für Arbeit*. Opladen: Leske + Budrich.

Green, A. (with Akiko Sakamoto) (2001). *Models of High Skills in National Competition Strategies*. In: Brown et al. (2001), 56-160.

Green, A., Wolf, A. & Leney, T. (1999). *Convergence and Divergence in European Education and Training Systems*. London: Institute of Education, University of London.

Greinert, W.-D. (1995). *Das duale System der Berufsausbildung in der Bundesrepublik Deutschland*. Stuttgart: Holland + Josenhans.

Greinert, W.-D. (2001). *Die Übertragbarkeit des Dualen Systems in Entwicklungsländer – Möglichkeiten und Begrenzung einer politischen Strategie*. In: Deissinger (2001a), 45-60.

Griffiths, T. & Guile D. (2001). *Learning through work experience*. In: *Journal of Education and Work*, Vol. 14, No. 1, 113-131.

HELP (Hessisches Landesinstitut für Pädagogik) (ed.) (2003). *Wissensforen als Instrument der Lernortkooperation. Abschlussbericht*. Wiesbaden: HELP.

HMI (Her Majesty's Inspectorate) (1995). Post-16 Vocational Education and Training in Germany. International Report. London: Further Education Funding Council.

ISB (Staatsinstitut für Schulpädagogik und Bildungsforschung) (ed.) (2003). Neue Unterrichtsstrukturen und Lernkonzepte durch berufliches Lernen in Lernfeldern (NELE). Abschlussbericht zum BLK-Verbundmodellversuch. München: ISB.

Kloas, P.-W. (1997). Modularisierung in der beruflichen Bildung. Modebegriff, Streitthema oder konstruktiver Ansatz zur Lösung von Zukunftsproblemen. Berlin und Bonn: Bundesinstitut für Berufsbildung.

Kloss, G. (ed.) (1985). Education Policy in the Federal Republic of Germany 1969 – 1984. Manchester: Department of Language and Linguistics, University of Manchester Institute of Science & Technology.

KMK (1999). Handreichung für die Erarbeitung von Rahmenlehrplänen der Kultusministerkonferenz (KMK) für den berufsbezogenen Unterricht in der Berufsschule und ihre Abstimmung mit Ausbildungsordnungen des Bundes für anerkannte Ausbildungsberufe. Bonn: Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland.

Koch, R. & Reuling, J. (1998). 'Public Quality Control of Vocational Training in Germany, France and the United Kingdom. In Vocational Education European Journal, Vol. 15, No. 3, 7-12.

Kremer, H.-H. & Sloane, P.F.E. (2000). Lernfeldkonzept – erste Umsetzungserfahrungen und Konsequenzen für die Implementation. In Bader, R. & Sloane, P. F. E. (eds.) (2000): Lernen in Lernfeldern. Theoretische Analysen und Gestaltungsansätze zum Lernfeldkonzept. Beiträge aus den Modellversuchsverbänden NELE & SELUBA. Markt Schwaben: Eusl, 71-83.

Kutscha, G. (1995). General and Vocational Education and Training in Germany – Continuity amid Change and the Need for Radical Modernization. Online: <http://www.uni-duisburg.de/FB2/BERU/download/vocation.zip> (10-10-04).

Kutscha, G. (1999). 'Modernisierung des Dualen Ausbildungssystems durch Entwicklung regionaler Infrastrukturen. In Tramm et al. (1999), 106-125.

Raggatt, P. (1988). Quality Control in the Dual System of West Germany. Reprinted in: Phillips, D. (ed.) (1995): Education in Germany. Tradition and Reform in Historical Context. London and New York: Routledge, 176-202.

Schlaffke, W. & Weiss, R. (eds.) (1996). Das Duale System der Berufsausbildung. Leistung, Qualität und Reformbedarf. Köln: Deutscher Instituts-Verlag.

Schmidt, H. (1996). Flexibilisierung der Berufsausbildung – Flexibilisierung als Organisationsprinzip? In Berufsbildung in Wissenschaft und Praxis, Vol. 25, No. 4, 1f.

Schmidt, K.-H., Sievering, O. & Wüstenbecker, M. (eds.) (1997). Das Duale System der Berufsausbildung – ein „Exportschlag“ in der Krise? Paderborn: Universität-Gesamthochschule Paderborn.

Sloane, P.F.E. (1997). Modularisierung in der beruflichen Ausbildung – oder: Die Suche nach dem Ganzen. In Euler & Sloane (1997), 223-245.

Sloane, P.F.E. (1999). Zusatzqualifikationen in der dualen Berufsausbildung – Möglichkeiten und Grenzen der Implementation. In Pahl, J.-P. & Rach, G. (eds.) (1999): Zusatzqualifikationen: Beiträge zu einem aktuellen Thema beruflicher Erstausbildung und Weiterbildung im gewerblich-technischen Bereich. Seelze-Velber: Kallmeyer'sche Verlagsbuchhandlung, 99-117.

Sloane, P.F.E. (2001). Lernfelder als curriculare Vorgaben, in: Bonz, B. (ed.): Didaktik beruflicher Bildung. Baltmannsweiler: Schneider-Verl., 187-203.

Tramm, T., Sembill, D., Klauser, F. & John, E.G. (1999) (eds.). Professionalisierung kaufmännischer Berufsbildung. Beiträge zur Öffnung der Wirtschaftspädagogik für die Anforderungen des 21. Jahrhunderts. Festschrift zum 60. Geburtstag von Frank Achtenhagen. Frankfurt a.M. et al.: Lang.

Tuomi-Gröhn, T. & Engeström, Y. (2003). Between School and Work: New Perspectives on Transfer and Boundary Crossing. Oxford: Elsevier Science Ltd.

Wüstenbecker, M. (1997). 'Mangel an Auszubildenden und Mangel an Ausbildungsplätzen – Anmerkungen zu Dualen System der Berufsausbildung'. In: Schmidt et al. (eds.), 3-24.