The competency debate in German VET: an analysis of current reform approaches

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Abstract

Competency-based training (CBT) is inherent in Anglophone vocational education and training (VET) systems. Respective attributes such as outcome-orientation, flexible delivery as well as an individualised and modular culture of learning are characteristic especially of the Australian VET system. Opposed to that, the German VET system is marked by the vocational principle, which leads to an efficient, but rather rigid system. Despite these apparent differences the competency debate has entered current VET research in Germany and various attempts to reform existing VET structures have been undertaken in the past few years.

This paper includes an analysis of the competency debate in German VET research against the background of two main principles underlying German VET, namely the principles of dualism and vocationalism. Concepts of competency will be introduced and the problem of defining the term competency and the inconsistent use of the term for example in the concept of key competencies will be looked at. "Professional action competency" and competency-based learning fields are illustrated as two examples of the German competency debate. Finally, the question whether CBT as realised in Australia has potential for the German dual apprenticeship system will be examined by contrasting both approaches.

Introduction

The German vocational education and training (VET) system and especially the dual apprenticeship system enjoy an excellent reputation in the international context of VET. However, increasing difficulties challenge existing structures and in times of globalisation and rapid technological progress learning and

work processes change. Flexibility and adjustability seem to be the keywords in this respect and especially the German dual apprenticeship system has deficits due to its rather rigid and highly regulated structures. In this context research on competency and competency-based approaches to VET receive more attention, especially with regard to the question whether the focus on competency rather than on existing principles such as vocationalism and dualism is valuable for the German VET system.

The issue of competency is addressed in various studies on VET, however the focus is mainly set on didactical and curricular aspects. Generally, three categories of research activities concerning competency in German VET can be distinguished. The first category comprises theoretical studies on the question how to define competency in the German context (see for example Vonken 2005). Second, theoretical studies on the concept of competency are undertaken with a strong focus on the question which elements of competency are necessary for successful work and learning processes. Widely used and broadly discussed in this respect is the concept of "professional action competency", which includes professional, methodical, social and personal competency (Mertens 1974, Schuler & Barthelme 1995, Erpenbeck & Heyse 1996 and Belz & Siegrist 2000). Third, so far only a few empirical studies on the concept of "professional action competency" are carried out to explore how "professional action competency" can be developed, measured and evaluated (see for example Schwadorf 2001).

Against the background of current research studies a short comparison of the competency debate in Germany and Australia is provided. Respective differences and similarities in the concepts of competency are outlined and the question whether a competency-based approach can be integrated into a vocationally based approach is discussed. Therefore, the two main characteristics of the German VET system – dualism and vocationalism – are explained. Furthermore, current problems and demands are illustrated and the importance of the competency debate in German VET research is highlighted. The question whether a competency-based approach has potential to improve existing approaches to VET is analysed by the example of so-called learning fields, the new "competency-based" framework for vocational curricula in Germany.

Principles of the German VET system

The German VET system with the dual apprenticeship system as its main pathway is characterised mainly by two principles: dualism and vocationalism. Dualism refers to the duality of two learning sites, namely the workplace for practical on-the-job training and the vocational part-time school for theoretical off-the-job training. Both learning sites should be equal partners, however, the workplace is considered as the more important learning site and vocational

schools are of minor importance (Euler 1998; Greinert 1998; Pätzold & Wahle 2003). One reason for this is the unsatisfactory cooperation between training companies and vocational schools and the resulting separation of practical and theoretical learning. Resulting from the dualism, apprentices enjoy a special status, since they are students in vocational part-time schools and at the same time employees in their training company. This status is determined and secured through the compulsory training contract. Via this contract training companies commit themselves to accomplish the training in accordance with the training regulations, thus all required knowledge and skills are delivered. This denotes that in-house training supervisors must have the formal qualification both in terms of personal and professional abilities to train apprentices. Furthermore, training companies are obliged to release their apprentices from work to attend the compulsory vocational part-time school usually one day per week. This contractual obligation secures the principle of dualism and is the central pillar of the apprenticeship system.

The principle of dualism is also prevalent in terms of responsibilities. Due to the federated system school-based training is under the authority of the Länder (states). That means school-based training is funded by Länder governments and operates under state jurisdiction. Although framework school curricula are development through a national authority of state representatives, the Länder modify and implement them. On-the job training within the dual system is funded by employers and the legal framework consists of the national Crafts Act for the crafts sector and the national Vocational Training Act for all other vocational sectors.

Vocationalism is the second main characteristic for the German VET system and the so-called vocational principle functions as a mechanism for the integration and socialisation of learners with regard to the following three aspects. First, the vocational principle structures the labour market by establishing a link between vocational qualifications and their usability on the labour market. Employers recruit their employees according to respective vocations, which include information about underlying skills and knowledge of the employee. Thus, vocations are a mechanism for the selection and allocation of workers on the labour market. Second, vocations are aligned to professional standards, which provide transparency of the vocations' comprehensive professionalism. This means that on the one hand employers can rely on employees being able to conduct work tasks professionally, since they gained their qualification according to the required standards. On the other hand employees can rely on a working environment across companies that is based on their vocation and provides work requirements and conditions also according to the required standards (Deissinger 1998, 249). Third, although vocations are acquired within a certain work environment, the employability in different workplaces within one and between different companies should be provided. This is secured by the binding professional standards that are required in all contexts, where nationally accredited vocational qualifications are offered.

Both dualism and vocationalism are important for the German VET system especially from a macro perspective. Dualism and vocationalism are the framework for vocational learning in terms of organisation and policy and secure a stable and consistent system (Deissinger 1998, 251). Standardised didactical and curricular guidelines are provided both for the on-the-job learning in terms of vocation specific training regulations (Ausbildungsordnung) as well as for the off-the-job learning in terms of school curricula. Training regulations are determined on the federal level, whereas the Länder are responsible for school curricula. Nevertheless, the Standing Conference of Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (Kultusmi nisterkonferenz) coordinates the development of school curricula and assures their quality and coherence. Curricula for all vocational qualifications gained in a formally regulated and accredited training course are standardised within a framework curricula (Rahmenlehrplan). Thus, both on- and off-the-job training are mainly standardised – except from methodical issues - aiming at vocational completeness, homogeneity and systematic procedures (Deissinger 1998, 183).

Concluding, the German VET system with a strong focus on vocationalism and dualism is broadly considered as an efficient system generating highly skilled workers with nationally and internationally recognised qualifications. The apprenticeship system is still acknowledged as a valuable pathway into employment, which is reflected in an increase of new training contracts from 2002 to 2004 as illustrated in Table 1. Especially the trade and industry sector as well as the public service sector enjoy an increase of apprenticeships, whereas the number of new training contracts in craft trades and liberal professions decreases.

Table 1: New training contracts by training sectors in Germany

	2002 Number	2003 Number	2004 Number
Trade and industry	305,000	309,700	319,500
Craft trades	177,000	171,800	171,100
Agriculture	14,200	15,100	15,700
Public service sector	14,700	14,200	15,400
Liberal professions	52,200	48,700	45,200
Domestic services	4,900	4,900	4,900
Maritime shipping	200	200	200
Total	568,100	564,500	572,000
Western Germany	441,900	436,900	445,600
Eastern Germany with Berlin	126,200	127,600	126,400

Source: Federal Statistical Office, 2005

Problems and demands of the German VET system

Economic and social changes such as the sharp increase of the service sector challenge the German VET system and demand new or modified qualifications. Due to changes in the organisation of work new requirements emerge (Baethge 2001, 51). Formerly vocationally based organisations are now based on work processes. This results in the demand of workers with dynamic professional profiles, who are able to tackle whole work processes rather than isolated tasks. Furthermore, departments defined by functions and authorities according to the "specialist department principle" (Fachabteilungsprinzip) are gradually replaced by multifunctional units with different centres of excellence and with a high degree of accountability (Baethge 2001, 52). The tasks of these units are no longer specialised in terms of vocations, but are based on customer needs and work processes (Müller, Häussler & Sonnek 2000, 11). The challenge for VET is to generate a flexible and multi-skilled workforce that is no longer restricted to one vocation but rather open to cross-functional activities, tasks and work processes. This should result in an increase of innovations, in a higher degree of adaptability to market changes, in a better use of existing knowledge and more organisational flexibility (Baethge 2001, 54).

Problems of VET based on vocationalism and dualism are articulated in various contexts (Deissinger 1996; Miller Idriss 2002; Pätzold & Wahle 2003; Greinert 1998 and 2004). Focussing on vocations rather than work processes generates a restrictive perspective, which is not appropriate for a global society and economy. Furthermore, vocationalism and dualism are rather rigid structural frameworks for learning processes. There is little flexibility in the bureaucratic system, which is often exposed to fierce criticism. The high administrative effort is enforced by various public and private authorities on the state and federal level. Modernisation attempts require a complex and time-consuming procedure, which prevents the system from radical changes and innovations. The demand for more flexibility is also often expressed in the context of lifelong learning. German VET focuses on profound initial qualifications that are acquired through formal training and predetermine future career pathways. The notion of a "dead end" is associated with the German VET system due to deficits in continuing training (Baethge 2001, 60). Another problem of vocationalism is the constraint put on individual developments. Vocational learning processes are formalised and standardised and thus not able to comprise individual potentials and interests. Curricula cannot be modularised and aligned individually due to formal regulations, which confine specialisation to certain vocational fields.

Looking at these problems four major demands can be identified for a competitive VET system (Baethge 2001, 62). First, a sufficient supply of training opportunities for modern vocations must be provided. Second, training resources must be up to date with technological, structural and organisational changes. Third, the attractiveness of VET must be increased through a better

transition between the vocational and academic sector. Fourth, the exclusion of young people with no or little formal education must be reduced.

Various approaches have been undertaken on different levels of the VET system to address these problems (see Deissinger & Hellwig 2004) and different VET research activities emphasise the necessity to respond to these new challenges. In this context the competency debate receives increasing attention. Numerous definitions of the term competency are developed and different concepts of competency have been introduced. However, the so-called concept of "professional action competency", which builds upon the idea of key competencies, is the centre of the ongoing competency debate.

The concept of competency in the German context

The competency debate entered the German context in the early 1990s and focused primarily on attempts to define and differentiate the terms competency and qualification. Erpenbeck & Heyse (1996) for example argue that the term qualification is object-based, since a qualification is an objective description of external educational standards representing the requirements of society. Thus, a qualification is a formally accredited and recognised certificate, which should secure the employability of its holder. Opposed to that, the term competency is subject-based, since it describes the internal potential of an individual. This is primarily defined by experience, which can hardly be measured by external standards. This means that a qualification, since its components are externally stated in terms of required skills and knowledge, can be taught, assessed and certified. Competency per se can only be measured if knowledge and skills are applied in a specific situation, i.e. if an observable and measurable performance is provided. Concluding from that, it can be stated that a) the performance of certain competencies in a certain working or learning context is necessary for a formal accreditation of competencies in terms of recognised qualifications and b) that the performance bridges the gap between competency and qualification. Although this differentiation is broadly accepted the terms competency and qualification are used inconsistently. Especially the term competency is used increasingly to describe workplace and learning requirements although the term qualification would be more appropriate. Thus, there is no common understanding of competency and it seems that it gradually adopts the meaning of qualification. This is enforced by different understandings of competency, in which competency is seen as both the internal potential and its successful application. That means performance is often understood as an essential part of competency and the distinction between competency, performance and qualification disappears.

The first concepts addressing the issue of competency dealt with key competencies (e.g. Mertens 1974; Zabeck 1989; Belz & Siegrist 2000). Key competencies should

comprise knowledge and skills that are non-contextual, i.e. competencies that are applicable in a broad range of work environments and adaptable to different requirements over time. The first concept of key competencies can be traced back to Mertens (1974), who defines four categories of key competencies. The first category includes basic competencies, i.e. basic mental operations as a prerequisite for cognitive problem solving in different situations and contexts. Mertens (1974, 41) accounts logical, critical and systematic thinking as examples of basic competencies. The second category refers to horizontal competencies that address the ability to gather, understand and work with information broadening one's horizon. The third category implies broad elements that require basic knowledge of techniques and vocationally related knowledge about measurement techniques, safety issues and maintenance of equipment. The last category includes so-called "vintage factors", i.e. the ability to gain new knowledge and to reduce knowledge deficits from former generations. Although the Mertens concept has been criticised (see for example Zabeck 1989) it provides the basis for many other concepts of defining and categorising (key) competencies. One example in this respect is the concept of "professional action competency", which is introduced in the following.

The concept of "professional action competency"

The most discussed and agreed upon approach to competency is the concept of "professional action competency", which is regarded as a target for vocational learning processes. "Professional action competency" is determined by four components: professional competency, methodical competency, social and personal competency (Erpenbeck & Heyse 1996, 19). Professional competency includes practical skills and knowledge for mastering occupation specific tasks in the workplace. Therefore, professional competency is the prerequisite for successful target-oriented problem-solving and task management. Methodical competency describes procedural skills and knowledge as well as the ability to apply relevant working methods and techniques in different contexts. Belz & Siegrist (2000) specify methodical competency by defining it as problem-solving skills, as an analytical and systematic approach to work tasks, as the ability of structuring and classifying new information and as the ability of developing and realising work and thought processes. Therefore, methodical competency is also often considered as a synonym for the ability to learn or "learning competence". Social competency is defined as skills that are required for communication and cooperation within social interactions. Schuler & Barthelme (1995) specify social competency by distinguishing between direct and indirect social competency. Direct social competency includes the ability to coordinate, to solve conflicts and to work in teams, whereas indirect social competency addresses empathy, sensibility and interpersonal flexibility. The last component in the concept of "professional action competency" is personal competency, which describes attitudes, value judgements and motivation as well as self-organisation, self-

reflection and self-respect. The concentration on the individual in this respect leads to the conclusion that personal competency comprises intrinsic self-competency that is necessary for a person to develop oneself within a personal environment as well as within an occupational environment (Breuer 2005, 11).

To make the concept of "professional action competency" a realistic target for vocational learning processes, each component must be specified. Therefore, criteria are developed and differentiated, which end in detailed descriptions of knowledge and skill. From stated criteria (see for example Erpenbeck & Heyse 1996) it can be concluded that the more specified these descriptions are, the more parallels between the four components can be identified. For example one item as regards professional competency is the organisation and structuring of practical knowledge and skills. This requires methodical competency for the selection and evaluation of the appropriate technique as well as social competency, since decisions often require the consent of a team. Personal competency is also necessary for the decision-making process and for the successful application of professional competency in different working environments. Regarding the concept of "professional action competency" two conclusions can be drawn. First, the more precisely the components are specified the more complex the concept becomes. That means the lines between the four components gradually vanish and interdependencies occur. Thus, for a successful performance in terms of "professional action competency" the interdependent development and application of all components is required. This interdependency is illustrated in figure 2. Second, due to its complexity the concept of "professional action competency" can only be regarded as an ideal type of competency, which can be used as a target for professional actions. Consequently, it can function as a benchmark for the individual progress in vocational learning processes.

Figure 2: Components of "professional action competency"

On a curricular level, the concept of "professional action competency" has been explicitly introduced in school curricula for vocational part-time schools, i.e. for the off-the-job training in the dual system. The standardised framework for school curricula developed on a national level includes an educational mission for vocational schools, determines didactical principles and describes learning fields, which are analysed later on. According to the educational mission, all learning activities should aim at professional, deliberate, social and private activities both in an occupational as well as in a personal and social environment. Furthermore, professional, methodical, social and personal competency as defined in the concept of "professional action competency" are explicitly stated as an educational target for off-the-job learning processes. Due to the dualism of the German apprenticeship system the counterpart of school curricula are training regulations (Ausbildungsordnung), which include

learning targets for the on-the-job training. Training regulations include the title of the vocational qualification, the training duration, assessment regulations and a so-called "occupational image " (Berufsbild), which describes the required knowledge and skills for the respective vocation. Although "professional action competency" is increasingly demanded by employers, the term is not explicitly stated and defined in all training regulations as opposed to vocational school curricula. Only in those training regulations that were reviewed in the last years, the term "professional action competency" has been introduced (for example skilled occupations in the metalworking and electrical industry as well as in the information and communication technology sector). Although components such as professional, methodical, social and personal skills are still not explicitly stated, the described requirements lead to conclusions about similar understandings. The objective of the on-the-job training is that learners are able to fulfil professional tasks successfully, i.e. they are able to plan, execute and control their activities independently within a broader economic context (Breuer 2005, 6).

As a conclusion, it can be argued that so far, the concept of "professional action competency" is more inherent in vocational school curricula than training regulations. Nevertheless, the idea behind "professional action competency" receives increasing attention from schools and especially from employers. This can be underlined by demands of the Association of German Chambers of Industry and Commerce, where the four components of "professional action competency" are seen as indispensable prerequisites of apprentices (DIHT 1998). The importance of "professional action competency" for school-based training within the dual system is especially evident since the restructuring of school curricula in the 1990s. Traditional subject-based curricula were replaced by a new interdisciplinary format, so-called learning fields.

The concept of "competency-based learning fields"

Learning fields are curricular units that are based on work activities and work processes rather than on traditional subjects (Kremer 2003a, 24). Traditional subject-based curricula have been replaced by interdisciplinary fields of required workplace performance. As part of curriculum development these fields of workplace performance or workplace activity are transferred into teachable units. Based on these units, specific learning situations and learning processes are to be developed by teachers. The applied teaching methods should be a mix of traditional classroom teaching and self-directed learning. Consequently, learning fields are not only a new format for vocational school curricula, they also trigger changes of learning environments and teaching methods and lead to new forms of learning processes. The underlying didactical objective is action-oriented learning (handlungsorientiertes Lernen). According to the Standing Conference of Ministers of Education and Cultural Affairs, action-oriented learning is a didactical concept that focuses on real work situations

that are relevant for the respective occupation (KMK 2000, 10). Furthermore, action-oriented learning is learner-centred, i.e. learners should plan, execute, control and evaluate their actions. Personal experience as well as social aspects such as team work and communication should be included either. Learning fields have a focus on workplace activities to establish a closer link between practical and school-based learning. Thus, the deficits of vocational schools, which are often too theory-based and fail at addressing the needs of industry, should be improved. This should make vocational schools a more equal partner to companies than they were in the past.

The concept of learning fields is a broadly discussed issue in German VET research and despite its didactical value, difficulties concerning the implementation are often articulated. Learning fields demand more organisational responsibility from schools and teachers than traditional subject-based curricula. Appropriate learning environments must be developed and respective teaching methods must be applied. Therefore, cooperation among teachers is necessary, however not always realised as demanded. In the past, teachers were responsible solely for their subjects and now they are required to teach in cooperation with others to enable interdisciplinary learning. Nevertheless, learning fields are regarded as a chance to improve the quality of VET and to have more flexibility in the design of teaching and learning (Kremer 2003b, 9). A major difficulty in the implementation of learning fields is the lack of understanding and knowledge of the concept and how to implement it in an action-oriented learning environment (Kremer 2003b, 327). Furthermore, deficits in teaching resources are often claimed as a reason for the slow implementation of learning fields. However, the major difficulties were caused by the way the concept was implemented. Especially teachers criticise that the implementing strategy was a trickle-down approach, since the decision to restructure vocational school curricula in terms of learning fields was made on the policy level and teachers were thrown in at the deep end. The Standing Conference of Ministers of Education and Cultural Affairs released the framework for school curricula based on learning fields in 1996, however according to a study by Kremer (2003a, 253) in 1999 most schools were still in the initial phase to implement learning fields. There was a certain resistance towards the implementation due to little knowledge and misunderstandings of the purpose of learning fields. Thus, there was a discrepancy between political objectives and the actual implementation in vocational schools.

Despite these difficulties in the implementation of learning fields the Standing Conference of Ministers of Education and Cultural Affairs stressed the objectives of learning fields and the establishment of respective action-oriented learning environments. Learning fields should make students competent in terms of successful planning, executing and controlling of specific and general work processes required in the workplace. In other words, learning processes aim at "professional action competency". In that sense learning fields can be

described as competency-based, however the underlying understanding of competency is holistic and a combination of professional, methodical, social and personal competency rather than an agglomeration of specific workplace-based competencies.

CBT in Australia and competency-based learning fields in Germany

Owing to space constraints of this paper a complex comparison of competency-based training (CBT) in Australia and the German VET system cannot be provided. However, important characteristics of the Australian concept of CBT and the concept of training based on learning fields in Germany can be summarised as follows:

Competency-based learning fields (Germany)	Competency-based training (Australia)
Although learning fields are claimed as a didactical innovation, their underlying principle is still vocationalism with the target of complex, homogeneous and systematic learning processes. The results are recognised and formally accredited qualifications as it is determined in the training regulation (Ausbildungsordnung) and in the 1969 Vocational Training Act (Berufsbildungsgesetz).	CBT is modularised, outcome-based and client-focussed (Misko 1999, 23). This leads to heterogeneous learning processes bringing forth nationally recognised qualifications as it is determined in a national qualifications framework.
Learning fields comprise standardised vocational curricula, learning targets and assessment for each national accredited skilled occupation, which means that all learners seeking a skilled occupation have to fulfil the same requirements and undergo the same learning process in terms of time and content.	According to the philosophy of CBT curricula, learning targets and assessment are standardised in terms of workplace relevant competencies, which means that all learners seeking a national vocational qualification have to fulfil the requirements of the specific unit of competency. The content of the units are determined, whereas the duration and sequence of the units might differ.
The objective of learning fields is that students are able to carry out real work processes. This requires both underpinning theoretical knowledge as well as practical workplace skills. Both should be realised within the learning fields to reduce the separation of theory and practice caused by the two learning sites (workplace and vocational part-time school).	Competency standards within CBT focus on "knowledge, skills, values and attitudes required to provide further evidence of the attainment of competence" (Misko 1999, 4). Thus theoretical knowledge and practical skills are incorporated in CBT, however both components can either be acquired entirely and partially on or off-the-job.

Learning fields are not only the curricular format for the development of professional knowledge and skills, since they explicitly support the development of key or generic skills. Interactive learning environments comprising action-oriented learning should contribute to this development. However, generic skills are not determined as explicit competencies that can be assessed and certified.	CBT integrates key competencies e.g. language, literacy and numeracy in a system of nationally recognised vocational qualifications (Misko 1999, 4). Key competencies are explicitly determined in competency standards and therefore they can be assessed and certified.
Within learning fields, the underlying understanding of competency is the holistic concept of "professional action competency" that comprises professional, methodical, social and personal competency and should enable a person to plan, execute and control required work tasks.	Within CBT, competency is commonly understood as "the specification of knowledge and skill and the application of that knowledge and skill to the standards of performance expected in the workplace" (ANTA 1998, 10).

The juxtaposition reflects some basic characteristics of the concept of learning fields and the Australian approach of CBT, however the most striking discrepancies are to be outlined in more detail. There are different understandings of the term competency, however, on a general level it can be stated that competency includes knowledge and skills that are to be applied in work situations. Looking at specifications of the term competency and thereby at certain concepts, differences are more apparent regarding the German and the Australian context. The German concept of competency refers mainly to "professional action competency" with the four specified components. Although there are minor differences in the detailed descriptions, there is agreement on the important interdependence of all components. Especially methodical or learning competency is often considered as the basis for the development of professional, social and personal competency. Thus, competency is regarded as a holistic and interdependent concept. Opposed to that, the Australian concept of competency is more focused on technical and work-place-oriented competencies that are independent from each other due to their modularised character. Although the importance of key skills is broadly acknowledged in German and Australian VET, their integration into a holistic approach to develop and deliver key skills seems to be achieved only partially in both contexts. However, in the training packages, the national format of vocational curricula in Australia, key skills are explicitly stated, whereas in the learning fields they are only implicitly demanded.

In addition to differences in the concept of competency three major discrepancies between CBT and training based on learning-fields can be outlined. First, although learning fields aim at more practical relevance by focussing on work activities, they are still taught in classrooms and not directly at the workplace.

Therefore, the separation of theory and practice due to the duality of learning sites is still apparent. By contrast, CBT has a strong focus on workplaces or workplace simulations and the practical relevance of acquired competencies is emphasised.

Second, in Australia competencies are determined in the national training packages, whereas in the German learning fields competencies are determined in framework school curricula. In both cases, the competencies are standardised on a national level, however, the degree of standardisation differs. In learning fields the content and duration of the apprenticeship training is determined and even action-oriented learning is prescribed as the dominant teaching method. CBT aims at more flexibility when it comes to the duration and contents of training. Teaching methods are also not prescribed, which allows for more flexibility in the design of learning processes and environments.

Third, recognition of prior learning (RPL) is inherent in CBT. That means processes, in which previously gained knowledge and skills are accredited as part of a national qualification, are defined. RPL allows for the recognition of competencies that are either acquired through a formal learning process or informally through work experience. In the German context, the focus is still very much on formal learning and there is no standardised process for the recognition of prior or informal learning. Various attempts to address the recognition of informal learning have been undertaken, for example in so-called competency balance sheets. Competency balance sheets are tools to list a person's previously gained competencies systematically. Their objective is to identify an individual's strengths and weaknesses. This should support especially persons who seek employment or want to start a career in a different area from the previous employment. Although these competency balance sheets are used mostly by private institutions for career guidance, their acceptance by employers is rather low. The problem is that there is no standardised format for the balance sheets. Competency balance sheets are not accredited on a national level and there is no opportunity to receive a formal qualification or even a partial formal qualification. As a consequence, the issued documents only serve as a tool to make a person's competencies transparent, however they are not accepted by employers as a formal certificate. A move towards recognition of prior learning on a national level can be seen in the revised Vocational Training Act of 2005. The revised act allows for the admission to the mandatory final chamber examination, if a person can prove that he/she has the required knowledge and skills gained through work experience outside the dual apprenticeship. Although this opportunity for recognition of non-formal learning exists, the majority of learners takes up formal apprenticeship training. The off-the-job training is based on formalised learning fields and there is no opportunity for persons to receive recognition of competencies gained previously. All apprentices have to go through the required learning fields and have to take the required assessment.

Conclusion

Vocationalism and dualism are still accounted as the underlying philosophy of the German VET system, however, increasing criticism indicates that changes within the system are indispensable. Critics argue that formalised and rigid learning processes resulting from vocationalism and dualism are "no longer feasible in a rapidly-changing economy" (Miller Idriss 2002, 473). Furthermore, increasing deficits of the German VET system such as a lack of training places (Deissinger & Hellwig 2004), the decreasing commitment of employers to VET and the inability to keep up with the need for skilled workers in many emerging sectors (Miller Idriss 2002, 477) challenge existing structures. In this context the competency debate entered German VET research by introducing the concept of "professional action competency" as a target for innovative learning processes. So far, the competency debate remains on the micro level and triggers changes solely for the design of learning processes and for curriculum development, e.g. the restructuring of subject-based vocational curricula into interdisciplinary learning fields. On the organisational and policy level, the competency debate has not yet led to major changes. However, two modifications resulting from the new Vocational Training Act reflect a move towards more flexibility and individualisation of German VET. First, the special admission to the final chamber examination without a formal apprenticeship is possible. This shows a tendency towards less formalisation and recognition of non-formally gained competencies. Second, the new Vocational Training Act provides an opportunity to acquire additional competencies that are not determined in the respective training regulations and not part of the prescribed learning fields (Federal Ministry of Education and Research 2005, 16). Thus, elective modules can be chosen to specialise in a certain occupational area and to expand one's initial training. Furthermore, pathways into further training should be provided after the completion of an apprenticeship. The underlying objective is to establish a closer link between initial and further education. So far, the focus is very much on formal initial training and further training is marginalised and usually separate from initial training. This gap should be closed and the context for life-long learning should be developed further.

Concluding, current reform approaches as well as political and educational objectives show that aspects of a competency-based approach to training are more and more integrated into the German VET system. However, a complete shift from vocationalism to competency-based training is neither anticipated nor feasible. Nevertheless, including aspects of a competency-based approach such as flexibility and partial modularisation in accordance with the main ideas of the vocational principle is a realistic target and necessary for the German VET system to maintain a high quality and competitive workforce.

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Methodical or learning competency

Professional competency

Personal competency

Social competency