

The German VET System: Exportable Blueprint or Food for Thought?

November 2015

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DOI: 10.11586/2016010

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1 Abstract

In recent years, the dual-system approach has gained considerable international attention for its success in addressing youth unemployment. Many countries have shown great interest in adopting the German dual VET system. But how might such a transfer be carried out? Exporting a VET system from one country to another is not merely a matter of copying the original system, but is rather a process of selection and adaptation by the importing country. The article offers an approach where the dual system is broken down into 11 distinct elements, each of which can be described and examined with regard to its transferability. Furthermore, reforming education systems is a complex undertaking. This is true in particular for a VET system, which – positioned as it is between a society's education system and labor market – must interact with a diverse set of actors and institutions. A national VET system seems best viewed as food for thought for innovation rather than as a blueprint for reforms or a finished export product. Additionally, because a VET system is embedded within specific economic, cultural and social systems, exporting it – or its individual components – is possible only if conditions in the importing countries are comparable.

2 Youth unemployment and school-to-work-transition

The global youth-unemployment rate in 2013 was 12.6%, a full percentage point above that of 2007. Indeed, on the global level, young people are nearly three times more likely to be unemployed than are adults. As many as 73 million young people were estimated to be unemployed in 2013. (ILO 2013).

To help young people make the transition from school to work, countries have developed a wide range of approaches. In the area of vocational education, three different models dominate (Greinert):

- First is the market-based or liberal model, predominantly used in the Anglo-Saxon regions, where the development of vocational skills is market-driven and not broadly standardized. Under this system, the supply and demand of training is regulated by the market.
- Second, there is the school-based or bureaucratic, state-regulated model; within Europe, France is the most typical example of this kind. Here, vocational training is regulated and financed by the state, and the types of vocational skills provided are not a function of demand within the labor market.
- Third, there is the dual-corporatistic model (applied mainly in German-speaking countries), which combines the market-based and school-based regulatory patterns. In this third model, schools and companies each serve as learning locations; company-based training is responsible for the practical part of a learner's education, while vocational schools provide the theoretical component. The characteristic feature of this system is that the provision of knowledge and skills is closely linked to the acquisition of necessary job experience. This ensures that training takes place under conditions similar to those the trainee will encounter in the workplace.

Another helpful approach when structuring the variety of skill-formation systems is to cluster them according to the degree of involvement of firms in initial vocational training (low or high) on the one hand and the degree of public commitment to vocational training (low or high) on the other hand. Four categories of VET systems can be derived from this matrix (Busemeyer & Trampusch 2012).

In recent years, the dual-system approach has gained considerable international attention for its success in addressing youth unemployment. The countries with dual vocational-education and training (VET) systems have the lowest youth-unemployment rates in Europe. The dual vocational-training system not only ensures that the business world has access to skilled workers with real-world training, but also facilitates young people's transition into the labor market. A recent study offers empirical evidence of the benefits of work-based learning in general (IPPR 2013): According to the study, work experience, whether acquired informally or as part of a formal course of study, increases the likelihood of post-education employment. While in some countries, a declining number of young people are combining work with study, the study found that people who combined work with study, either as a formal part of their education or in addition to it, faced a much lower risk of post-education unemployment in the countries surveyed. In Germany's case, the dual apprenticeship system appeared to be a key factor in explaining that country's relatively low rate of youth unemployment.

In Europe, the European Union and its member states have come to recognize the benefits of the dual vocational-training system. Indeed, their interest in the training model is greater than ever. In its "Rethinking Education" strategy paper, the European Commission makes the compelling statement that, "Work-based learning, such as dual approaches, should be a central pillar of vocational education and training systems across Europe, with the aim of reducing youth unemployment." The European Alliance for Apprenticeships, a Commission-initiated project, was formed to work toward the same end. According to the Commission, the Alliance will help fight youth unemployment by improving the quality and supply of apprenticeships across the European Union, by creating a robust partnership between key employers and education-sector stakeholders.

3 Dual VET system: A remedy for today's problems?

Many countries have shown great interest in the German dual VET system, and countries such as Spain, Greece, Portugal, Italy, Slovakia and Latvia are even considering adapting their vocational training systems to follow Germany's model more closely. But how can such a transfer happen? Is it simply a matter of copying the right structures and processes from one country to the other?

In educational circles, a comparatively new phenomenon can be observed today. On the one hand, there is outspoken admiration for specific examples such as the Finnish or the South Korean school systems (the so-called PISA champions), or the German and Swiss VET systems. On the other hand, it's clear that nobody is working seriously to copy any of these systems, or even to adopt major parts of them. At best, reformers have used these systems as inspiration when changing elements in their own systems, generally focusing on shortcomings they had previously criticized in the context of a national debate.

In the case of the German VET system, there were numerous attempts in previous decades to transfer it to other countries. While the primary international focus in the 1960s and 1970s was on the promotion of school-based training models, this has shifted since the 1980s to the promotion of dual or collaborative forms of VET such as the German system. Today, considerable sums of money are being invested in cross-border VET collaborations (cf. BMBF 2012: 75). Germany's participation in these efforts has been motivated by a justified self-interest. "The export of German training and education services has ... a leverage effect for German industry, since the export of goods in the engineering or automotive industry, for instance, presupposes the existence of well-trained specialists abroad" (BMBF 2012: 74). The export of VET services also presumes the exist-

ence of a market that can be opened up through new business models (cf. Lippuner 2012; Jonda 2012). Accordingly, numerous collaborations, projects and initiatives exist, and are being promoted politically and implemented by organizations such as the Federal Institute for Vocational Education and Training (BIBB) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

4 Export performance is critical ...

In most of the evaluations, the “export performance” or home-country benefit, to foreign implementations of German-style VET systems has been viewed critically (cf. Stockmann, Silvestrini 2013). Based on a review of projects in 2010 – 2011, Stockmann and Silvestrini (2013) concluded that projects aiming to introduce dual or collaborative training structures were largely unsustainable. One of the projects evaluated sought to introduce dual training structures in the Philippines (cf. Silvestrini, Garcia 2010). The evaluation focused on the relevance, effectiveness, efficiency, impact and sustainability of the interventions. The conclusion: “The evaluation team rate[d] the intervention as a whole as unsatisfactory ... since its sustainability appears to be rather inadequate” (Silvestrini, Garcia 2010: 5).

Overall, despite considerable cooperative and promotional efforts from within German educational and policymaking circles, the adoption of Germany’s dual VET system has remained limited to a few countries in central Europe. In some other countries, the dual VET system was introduced in some specific trades or a few companies. Moreover, the dual VET system does not represent the entirety of VET programs in any of these countries, but is instead only a component of the VET system as a whole. Conversely, VET systems from England and Australia, which from a German perspective are frequently viewed as being underregulated and insufficiently effective, remain quite influential in international VET practice. The development of the European Qualifications Framework, for example, relied much more heavily on reference models from the English-speaking world than on German models (cf. Deißinger 2013).

How has the field evolved in this way? Are ambitions to transfer the German model based on false assumptions, thus seeking to offer solutions for the wrong problems?

5 Supply-driven transfer perspective

One major assumption to be challenged in this regard might be referred to as the “supply-driven transfer perspective.” This perspective is framed by the question: “How can the dual VET system be exported to other countries?” The underlying strategy is then to copy as many components of the system as possible. The approach is backed by political measures that benefit specific interests, and is accompanied by both financial and consultancy support. Indeed, the German government’s primary interests in promoting international VET cooperation are to contribute to the creation of a skilled labor force for German companies abroad and to open doors for German consulting organizations in this area (cf. Deutscher Bundestag, 2013).

This perspective can be critiqued, however. What would you say if a German car manufacturer wanted to export its successful models designed for the German market to England or southern Europe? The objection would immediately be raised that the steering wheel does not go on the left in England, and that there is no need for heated seats in the warmer climate of southern Europe. This does not mean that there is no prospect of exporting the products, but that significant changes would have to be made to them first. What does this example reveal? The “best” from the perspec-

tive of suppliers is not always the best from the perspective of end users. The analogy to the dual VET system is evident.

Once one begins seriously considering the prospect of exporting the dual VET system to other countries, a large number of unanswered questions emerge. What exactly is to be exported? Is it the German or the Swiss dual VET system? The two are regarded as similar, but any close examination exposes considerable differences at the level of details. Furthermore, the German dual VET system manifests considerable differences between apprenticeships in the crafts sector and, for example, apprenticeships in the banking, metal industry or retail sector. Quality standards are different in these various areas, and existing practices are not worthy of recommendation in all cases. Beyond these issues, the German dual VET system itself faces a number of problems. For example, in some sectors, an increasing number of companies are withdrawing from participation and instead relying on other strategies to recruit qualified personnel. Drop-out rates from training programs are dramatic in some areas, and success rates in graduating to the so-called transitional sector or to higher education are anything but excellent. Finally, it should be noted that the dual VET system is an important but just one aspect of the overall VET system even in Germany. Many young people are educated and trained for working life solely in school-based programs. Moreover, some 250,000 young people do not receive a straightforward VET assignment, but are “stocked” in transitional programs (and thus are not calculated in the youth unemployment rate).

Conceding these points, how might a transfer function in practice?

6 Demand-driven transfer perspective

Exporting a VET system is clearly a deeply complex and context-bound process. The discrepancies between ambitious political goals and the disappointments of reality are often explained by an appeal to the German VET system’s historically rooted, political, institutional and legal characteristics, which – critics say – are simply too complex to allow export of the system to countries without very similar historical and cultural conditions. Such an explanation may have some element of truth, but is ultimately too narrow. In particular, it fails to recognize the theoretical conditions under which components from one system may be exported to another (cf. Euler 2005).

Exporting a VET system from one country to another is not merely a matter of copying the original system, but is rather a process of selection and adaptation by the importing country. A country will not seek to reform its own VET system by importing an entire training and education model, but will instead seek to achieve specific objectives or reach specific target groups within its own local context. Accordingly, it will selectively choose those components of the foreign system that appear to offer a benefit, and adapt them so they can be integrated into existing structures and cultures.

Moreover, all existing VET systems are necessarily the result of historical and cultural forces. In Germany’s case, the present-day dual VET system has been shaped by prevailing legal norms, traditions, pedagogical principles and institutional structures, for example. It did not come about as the result of a rationally considered design on a drawing board, but instead developed gradually “as the result of a national social and cultural history” (Deißinger 1997: 2). The core of the dual VET system developed from the historical model of on-the-job training within trades, to which school-based and intercompany instruction were gradually added over time. This continuous development was strongly influenced by the rise of technical and economic demands that could no longer be adequately fulfilled by company- or workplace-based training, resulting in the need for other learning sites (cf. Stratmann, Schlösser 1990).

Contingent historical forces also affect the way individual countries evaluate their own systems. Schneider (1997: 5 et seq.) uses the example of Austria to show how assessments can differ depending on the emphasis placed on specific analytical criteria (in his study, he compares economic, democratic and individual criteria). Some countries, for instance, view VET primarily as an economic-policy instrument, whereas in Germany, VET is also linked with social and educational objectives. The overarching objective in Germany dates in part to the theory of vocational training advocated by Kerschensteiner, who saw the VET system in place more than 100 years ago as a means of integrating vulnerable (male) adolescents into society and reducing the risk of political radicalization (cf. Zabeck 2009: 491).

Each of these theoretical considerations will influence decisions to import a foreign system. For example, let us imagine a country where the government, businesses and the population have not previously placed a high value on VET. Anyone who can handle the academic work, and whose family can afford it, hopes to obtain a university degree. Even school-based qualifications below the university level are considered to be more important than on-the-job training programs. In this environment, an initiative to overhaul the VET system is being considered. It is hardly likely, in a context such as this, that the German dual VET system with all of its legal, institutional, financial and pedagogical components could be imported as a blueprint, because factors such as status, cultural embeddedness and commitment of major stakeholders are different.

Any country that wishes to reorganize its VET system will thus seek to determine which components of a foreign model can easily be integrated into existing structures, and what adaptations and modifications need to be made. For example, there may be no need to establish a complex chamber system, as exists in Germany; instead, as in Switzerland, assessment and certification could take place in coordination with the learning sites. In short, the export issue should be considered in terms of the suitability of individual features, and the importing country should review various countries' systems and select only those features that best match its own goals, structures and cultures, adapting them as necessary.

Two main conclusions can be derived from these practical and theoretical considerations:

1. A national VET system is a tool for achieving certain objectives, which may differ from one country to another. There is no "best" system; each system can be judged only by its success in achieving identified aims.
2. A national VET system is influenced by other social subsystems, and exporting it – or even individual features of it – is possible only if conditions (e. g., qualification structure, work organization) in the importing countries are comparable. It may be that the VET system in a particular country is less developed, but that the country's system of continuing training plays a comparable role in the development of practical skills, and is more highly developed as a result (e.g., in Ireland or the United States; cf. OECD 2010: 37). The institutional context, the harmonization of the education and employment systems, and cultural norms must all be taken into account when considering the possibility of importing a VET system.

What does this mean for the transfer of VET systems?

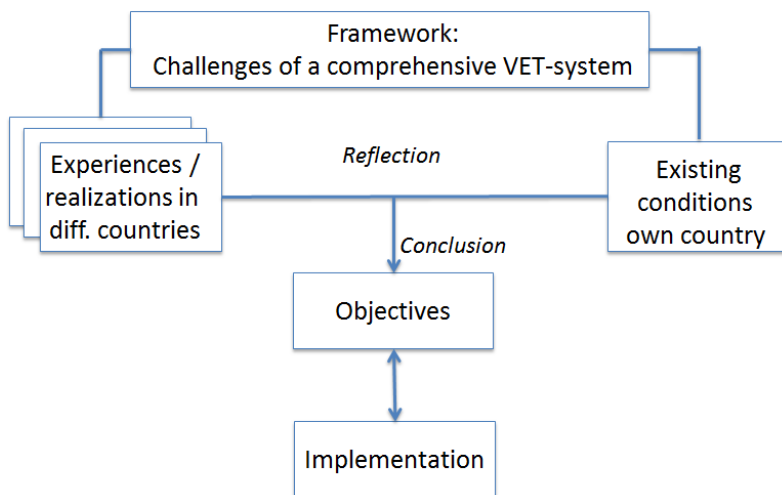
7 Framework for a demand-driven transfer

If the rhetoric of export follows a supply-driven perspective, the considerations detailed above argue for a demand-driven perspective in seeking to adopt or adapt VET systems. Here, any review of a system or individual feature's applicability begins with a different question: How can the transition from compulsory schooling to employment (from learning to earning) be best achieved through the purposeful design of a VET system?

This overarching problem can be broken down into specific questions that help structure the search for a satisfactory means of improving an existing VET system:

1. What challenges face a comprehensive VET system?
2. What conditions with regard to the components of a VET-system do exist in own country?
3. What experiences from other countries offer promising ways of tackling these challenges?
4. What objectives should be addressed with regard to changes in the own country?
5. How can we implement any desired changes? What kind of international cooperation might support these changes?

The following chart illustrates the process as structured by the five questions:



What makes up a comprehensive VET-system?

Drawing on a comparison and consideration of a variety of VET systems in different countries, we have developed a framework that can be used in assessing and designing an effective VET system. This framework is based on 11 core components which, in normative terms, are essential to a modern VET system. At the same time, each component can be adapted to the specific cultural and economic contexts within an individual country, as there are many different possible paths to take in realizing each component.

INPUT	PROCESS	OUTPUT / OUTCOME
<ul style="list-style-type: none"> • Curriculum/ Standards • Instructional competencies / Media • Instructional infrastructure 	<ul style="list-style-type: none"> • Educational principals and methods 	<ul style="list-style-type: none"> • Objectives • Assessment / Testing • Certificates
<ul style="list-style-type: none"> • Stakeholder inclusion (e.g., business) • Acceptance and reputation in society (i.e., among parents, graduates, business) • Financing • Research and development 		
<p>Cross-cutting components</p>		

Figure: Framework for assessing and designing a VET system

When assessing and designing a modern VET system, the following components should be taken into consideration (cf. Euler 2013):

- The most important aspect of outputs and outcomes is linking educational objectives with the capacity to monitor progress made toward these objectives and documenting this progress in the form of certification. Ensuring this linkage allows, for example, the development of business-related or professional decision-making competencies, but can also have a positive impact on broader societal goals. The assessment can be conducted, for example, summatively and formatively, either during or at the completion of education/training, and through a centralized administration or decentralized organizational entities. Finally, certain certificates can be earmarked with specific advantages such as wage-rate classifications or entry qualifications for tertiary or other continuing education opportunities.
- Whereas the Output/Outcome components focus on educational results, the input components record the foundations of education. For both potential learners and educators (those responsible for onsite training and education), curriculum standards are key to establishing transparency in terms of which competencies are developed. For potential employers, this transparency provides valuable information about what they can expect from applicants that have successfully completed such training. In addition, standards can be established to ensure a quality educational experience by requiring, for example, eligible instructors or appropriate facilities.

The appropriate personnel and media resources are needed in order to implement curriculum standards. This involves ensuring that instructors have the appropriate competencies and instructional materials (e.g., books, instructional media). It is also important to establish who or which administrative unit is responsible for implementing these standards and/or providing the support needed for the educational process. This helps establish an institutional infrastructure that is accountable to ensuring the quality implementation of educational objectives.

- Procedural components involve establishing which educational or learning principals and methods are to inform individual learning contexts. How, for example, should learners be taught the relevant theoretical principals and acquire the relevant practical skills?
- In addition to these education-specific elements, there are some important broader, or cross-cutting components. One such component involves the inclusion of future employers, that is corporate or industry stakeholders, which can be comprehensive and carried out in close cooperation or less frequently and in loose cooperation.
- Another key factor in fostering firms' acceptance of a VET system is the system's reputation among other stakeholders in society. These views are often shaped by the educational backgrounds that have influenced an individual's options and opportunities in life which, in turn, influence the opinions held by graduates, their parents and other stakeholders.

Financing is another key component of a modern VET system. There are a variety of models involving the state, firms and learners in different capacities.

Finally, it is important to determine which mechanisms will allow for the ongoing development of a VET system. To what extent, for example, can decisions be made on the basis of VET research, planning, statistics and monitoring instruments? Should institutions act to promote the ongoing development of the system? Which areas of expertise are needed in order to address educational issues appropriately?

To sum up, a national VET system seems best viewed as food for thought for innovation rather than as a blueprint for reforms or a finished export product. A national VET system is a tool for achieving certain objectives that may differ from one country to another. There is no "best" system; each system can be judged only by its success in achieving its identified aims. Additionally, a national VET system is embedded in economic, cultural and social systems, and exporting it – or even individual components of it – is possible only if conditions in the importing countries are comparable.

8 Nature of reforms

Generally speaking, reforming education systems is a complex undertaking. This is true in particular for vocational training, which – positioned as it is between a society's education system and labor market – must interact with a diverse set of actors and institutions. Actors include ministries responsible for specific policy areas at various levels of the national and subnational administrations, as well as social partners and companies whose facilities serve as training sites and will thus be affected by any reforms.

Different institutions utilize different rationales for action and are subject to different incentive structures. An education ministry, for example, will often aim to expand the scope of its own power and institutional standing even as it advocates on behalf of educators. Companies and employer associations are instead driven by the economic rationale of profit maximization. For their part, trade unions may advocate for fair minimum wages but are also concerned with maintaining membership numbers. Every reform has winners and losers. For example, introducing trainee salaries creates changes in wage structures; expanding the scope of vocational schools requires a restructuring with profound consequences for teaching staff; and introducing vocational training will initially re-

quire an increased investment of personnel and financial resources by companies. Implications such as these must be factored into the implementation of any reform.

Given these various logics conditioning action, every reform attempt initially runs the risk of being written off as a measure primarily reflecting the interests of a specific stakeholder. Involving the whole spectrum of stakeholders early in the process is therefore a key factor in facilitating reform success. Leading institutions such as ministries in charge of the process must initially identify key stakeholders' core interests and concerns. In a second step, a series of joint meetings could be held in order to discuss and formulate a consensus-based agenda. The political capacity to carry out and enforce reforms depends on the extent to which stakeholders affected by a reform perceive such changes as relevant to their shared objectives. Though time-consuming, participatory processes of this kind are worthwhile investments. All too often, reforms are blocked by stakeholders whose interests were unacknowledged in the early stages of the process (Bertelsmann Stiftung 2011).

Communicating a reform agenda should be accompanied by efforts to raise public awareness of the issue. Change is possible only when political attention is driven by public opinion to focus clearly on a subject. Youth unemployment, skilled-labor shortages and the narrowing scope of opportunity available to youth are examples of issues relevant to vocational-training reforms that might be highlighted in public-awareness campaigns.

VET reforms that envision businesses as training sites must be able to motivate the private sector to provide such training. For companies in countries without an established vocational-training tradition, providing and paying for such training is highly unusual. The purpose and relevance of such practices must therefore be demonstrated. This can be done by drawing on the example of businesses that already provide such training, either domestically or abroad. For example, training programs' capacity to cultivate employee loyalty in the early stages of an employee's career could be highlighted. Pointing to empirical evidence demonstrating the profitability of vocational training in Switzerland and Germany might also be helpful. Such data demonstrate that vocational training can prove economically valuable to a company early on – that is, even during the training period – when trainees are engaged directly in a business' value chain instead of receiving training at a vocational center (Muehleemann, Wolter 2013).

The extent to which a society values vocational training can be a key factor in reforming such a system. In many countries, vocational training suffers from a poor image. For parents and youth alike, a traditional school or academic education is valued more highly than is practical on-the-job training. Changing such views, which are often subject to prejudice, requires considerable perseverance. According to recent findings, programs aimed at raising vocational training's acceptance within society will be successful when they are able to show results that create justified confidence in the VET system. Raising false career expectations that can't be fulfilled will have a counterproductive effect. Therefore, every activity aiming to raise social acceptance should be cautiously performed, and be preceded by an in-depth analysis of the country's specific conditions and employment prospects (GIZ 2013).

Obviously, a transfer process implies much more than simply working from an existing blueprint. It is a complex undertaking that needs thorough consideration and considerable patience. In addition, transfer is not a one-way-street: The "modular approach" to transfer presented in this article shows that there is no ideal system, but rather opportunities created by adapting others' experiences to the needs of a specific country. However, this approach may also be useful in broadening the perspectives of countries that have dual VET systems today. Thinking in terms of individual

elements instead of taking a monolithic view of the VET system may enable policymakers to identify areas needing reform or improvement. Even a much-praised VET system such as Germany's has shortcomings, and it too could benefit from other countries' experiences. In other words: Transfer is best seen as a two-way process, offering both parties an opportunity to learn from one other.

In summary, dual systems have clearly proven adept at addressing youth unemployment issues and ensuring a supply of skilled labor. The „dual“ principle – that is, of combining practical experience with theoretical reflection – seems particularly effective in building bridges between an educational system and the labor market. However, existing dual systems such as that found in Germany are functional only within a context that is as specific as it is complex and involves an entire set of educational policies and cultural and legal traditions. When reforming any VET system, which is hardly transferable on a 1:1 basis, we should be mindful of the work-based learning approach so often employed in the dual system itself.

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10 Curriculum Vitae

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