A Comparative Analysis of Peculiarities of Vocational Education In Ukraine and Germany

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Abstract: The labour market of Ukraine and CIS states requires highly skilled construction workers. However, the prestige of these professions has now declined significantly. The modernization of vocational education and training (VET) creates certain problems in European integration of Ukrainian education. Besides, the study of vocational education in highly developed European countries is strategically important to Ukraine. In these countries, vocational education is more advanced, flexible, accessible, open, inclusive and prestigious. Therefore, this paper deals with the main aspects of the functioning of vocational education. Its development is based on taking into account the needs of production and business for skilled workers, as well as adequate financial support from government and employers, who understand it as an investment in future economic growth and productivity, thus creating employment opportunities for graduates from vocational education institutions and adults. Those who pursue vocational training in Germany are, first of all, graduates from high schools (Gymnasium), basic secondary schools (Hauptschule), junior high schools (Realschule), comprehensive schools (Gesamtschule) and secondary schools (Sekundarschule). The main components ensuring efficiency and high quality of professional training of highly skilled construction workers in Germany include an effective legal framework for educational activity in Germany, use of dual training in the system of training highly skilled workers and constructive development of the social partnership. Thus, an analysis of professional training of highly skilled workers in relevant centres in Germany and interconnections between vocational education, economic integration and social development of Germany makes it possible to outline certain strategic steps regarding the functioning and improvement of professional (vocational) education in Ukraine. The paper reveals certain prospects for developing international cooperation and outlines the possibility of involving Ukrainian professional (vocational) education institutions in the global educational process. The paper also emphasizes the importance of updating forms and methods

of vocational education of skilled workers in vocational training centres in German and partly reveals the characteristics of introducing and developing social partnership.

Keywords: *vocational education, dual training, social partnership, decentralization.*

How to cite: Pyliavets, M., Protas, O., Martynens, L., Lyashkevich, A., Babyshena, M., Chumak, L., & Lazorko, O. (2020). A Comparative Analysis of Peculiarities of Vocational Education in Ukraine and Germany. *Revista Românească pentru Educație Multidimensională*, 12(3),200-212.
<https://doi.org/10.18662/rrem/12.3/317>

1. Introduction

The scientific content of Ukrainian vocational education introduces new facts and ideas based on the study of original German scientific sources on functioning and further development of vocational training centres for training skilled workers. Given the initiation and development of different areas of partnership in the vocational education system and the knowledge about the vocational education system in Germany, one can see the following contradictions: the practice-related advanced nature of Ukrainian vocational education and the lack of clear mechanisms for its implementation and the monitoring of the changing labour market needs; the lack of mechanisms for innovative management of the educational process in Ukraine; the need to acquire scientific knowledge about the system of professional training in highly developed European countries (e.g., Germany), the tendency to increase volumes of independent work and self-organization in the context of the Bologna Declaration and insufficient pace of development, use of open educational technologies in a certain way.

Three basic types of vocational education and training have emerged as a result of industrialization, the decline of the guild system, as well as the influence of political, philosophical, cultural and religious movements in Europe. These “classic models” are the liberal market model (the UK), the state bureaucratic model (France) and the dual corporate model (Germany, Austria, Switzerland, Denmark) (Cedefop, 2004). In the history of European vocational education, the alternation of roles and responsibilities between enterprises and educational institutions was first adopted in Germany and Denmark, namely, in Art. 142 of the Industrial Code adopted by the North German Federation in 1869; in the Law of Denmark on Discipleship adopted in 1889; in the Declaration on the Regulation of German’s Apprenticeship System adopted in 1919 which recognized a draft scheme for vocational education and training (in 1969, the main elements of this scheme were introduced into German Vocational Training Act) (Leu, 2016, p. 119).

The situation was rather different in the USSR in general and the UkrSSR in particular. In the early 1960s, following the Law “On Strengthening Ties between School and Life and on Further Developing the System of Public Education in the USSR”, it was vital to create the conditions for adolescents, young people of school age and adults to obtain a general secondary education. This led to the emergence of new forms of training: accelerated classes, training centres, agricultural mechanization

schools, three-year schools of masters and three-year external studies. The main drawback of accelerated classes was the poor quality of pupils' knowledge caused by poor attendance. Pupils from such schools interrupted their studies, which rather complicated the process of their acquiring new knowledge (Koniukh, 2010, p. 114). Thus, the post-war years created certain prerequisites for forming and developing vocational education since there was a need for state-building.

The most important challenge the Ukrainian state has been facing since the independence declaration is the development of the national education system (Tsyhan, 2017, p. 120). In these circumstances, there is a transition to an innovative model of development under which labour potential plays a crucial role in determining the development of the country. Nowadays, vocational education is considered not simply as a means of generating the workforce but as a source of active revival and growth of socio-economically active population groups that can work in all areas of social production (Batechko, 2014, p. 137). It is important to choose a correct centralization degree of management for such complex systems as VET which requires processing and transferring a vast array of information to management departments. Besides, the quality of the management mainly depends on the conditions of all elements of the system. The decentralization of management can reduce the amount of information transferred and processed. In some cases, however, it leads to a decrease in the quality of the management (Aistrakhanov, 2012, p. 7). In the late 1980s and the early 1990s, the curriculum of Ukrainian vocational education included courses related to production automation, computer science and computer technologies. Therefore, it envisaged a consistent study of courses, and considerable attention was paid to general education in vocational education institutions. Thus, general education served as the basis for general technical education, on which specialized courses and industrial training were based. At the same time, the knowledge of general courses allowed pupils to learn more deeply the material from separate vocational topics. It was important that the teaching of general courses should be profession-oriented and highlight the use of acquired knowledge in practice (Parzhnyskyi, 2012, p. 190).

From the mid-1990s, because of the need to find an adequate response to new challenges of socio-economic and cultural development, the leading countries in the world became actively involved in the process of securing conditions and opportunities for continuing vocational training (CVT) at the national level. Since the aim of developing CVT was of national priority, tangible results were achieved. CVT opportunities for a far

broader group of citizens were expanded; new employment opportunities emerged; equally important socio-economic challenges of national and global significance were identified, including those aimed at improving the VET system to meet new requirements (Perfileva, 2008, p. 9).

The systematization and generalization of different approaches to the concept of CVT have made it possible to discover the following:

1. In the 1980s, with the advent of new governments in many countries of the world, certain market principles were introduced in higher education, including the delegation of financial authority, recruitment and strategic planning. Consequently, educational institutions became similar to small and medium-sized businesses. All those pursuing such training were regarded as consumers of educational services. In the field of higher education, enterprises interested in highly skilled workers were also consumers.

2. In the 1990s, with the advent of other governments in different countries of the world, reforms regarding the introduction of market mechanisms in education began to be criticized, in particular, because the proposed education system was most favoured by upper and middle-class people.

It eventually resulted in the loss of working-class professionals through the school system and subsequently through higher education. Due to these contradictions, they proposed a policy of smart integration of market and state, as well as the provision of access to lifelong learning, which could enable citizens to gain employment and adapt to changing market conditions. These provisions became the basis for the education policies of many countries in the 2000s (Buianov, 2015, p. 32).

In today's conditions of the increased competition and rapid ageing of professional knowledge, the issues of enhancing VET and developing labour potential are gaining in importance and relevance. It is possible to train highly skilled competitive workforce only if future graduates are provided with in-depth knowledge and can use them rationally, learn new technologies and take an active part in integrative social processes. In general, the introduction of new technologies should be aimed at accelerating the transfer of knowledge, the development of professional and key competencies, which are fundamental human resources, given that innovative pedagogical and industrial technologies are constantly changing. A competency-based approach is understood as the focus of the educational process on the development of key (basic) and subject-specific competencies (Veintraub et al., 2015, p. 637).

At the present stage of VET development, Ukraine still should overcome the following obstacles: the lack of high-quality training programmes in English and German; a low level of confidence of international partners in the Ukrainian education system; the lack of a unified approach to implementing international programmes; out-dated training aids supply in most vocational education institutions in Ukraine; the content of vocational education is far behind the needs of employers, as well as the country's labour market.

The paper aims to outline the leading trends and principles of vocational training of highly skilled construction workers in Germany, briefly justify theoretical and practical approaches to updating the VET system in Ukraine towards training future construction workers based on joint activities of Ukrainian vocational educational institutions with German partners and clarify the essence of such fundamental concepts as “dual training”, “social partnership”, “an innovative model for developing vocational education institutions” and “modular training”.

2. The Peculiarities of Professional Training in Germany and Ukraine

The VET systems of Germany and Ukraine were analyzed in the context of legislative, structural, organizational and pedagogical areas, which made it possible to identify their specific and common features.

Regarding the legislative component, vocational education institutions in Germany are decentralized and entitled to certain independence based on social partnership with employers who act as customers of relevant skilled workers and sponsors of the educational process (Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung, 2002). Legislative support for developing social partnerships in Germany is envisaged in Vocational Training Act (2016), which consists of seven sections. It states that vocational training takes place both in vocational schools and at enterprises. Section I “General Regulations” (Allgemeine Vorschriften); Section II Vocational Training (Berufsbildung); Section III “Organization of Vocational Training” (Organization der Berufsbildung); Section IV “Research, Planning and Statistics of Vocational Training” (Berufsbildungsforschung, Planung und Statistik); Section V “Federal Institute for Vocational Education and Training” (Bundesinstitut für Berufsbildung); Section VI “Infringement of the Regulations” (Ordnungswidrigkeit); Section VII “Transitional and Final Regulations” (Übergangs- und Schlussvorschriften) (Avsheniuk, & Kredenets, 2019, p. 56).

In Ukraine, the independence trend has been paid much attention in the formulation of state standards of vocational education. However, employers are not quite ready for such cooperation, and the main responsibility for the formulation and implementation of these standards lies with relevant vocational education institutions. The current stage of VET development puts increased demands on graduates of respective educational institutions, which must know the latest production methods and technologies and think creatively (Andriushchenko et al., 2015, p. 4). On the other hand, Ukraine promotes the development of different areas of social partnership under which educational institutions cooperate not only with national enterprises ensuring in-service training and organizing industrial placement within Ukraine but also various foreign funds and companies improving training aids supply and adjusting state standards to European ones. With the assistance of the Eberhard Schöck Foundation (Germany), three work-study complexes were developed within the framework of an international pilot project in VET to train specialists in painting and restoring decorative and artistic colours at the premises of Lviv Higher Vocational Art College, Higher Art Vocational School No 5 (Vinnytsia) and Kyiv Higher Vocational School of Construction and Design (Kalenskyi et al., 2018, p. 130).

3. Updating the Content of Vocational Education

Updating the content of VET based on the monitoring of the labour market involves developing a state list of professions taught in vocational educational institutions. It emphasizes the need to improve the content of state standards of vocational education for different professions. The standardization of vocational education is a procedure that determines the establishment of normative requirements of qualification standards for learning outcomes (competencies) of graduates from the vocational education institution. Also, it ensures a permanent comparison of pupils' learning outcomes with the goals of their competency-based training to correct it. Finally, it aims to achieve an appropriate quality of vocational training employing innovative technologies and content of such training and promotes the convertibility levels of vocational education within and outside a certain country (Radkevych, 2011, pp. 4–5). When solving issues related to the implementation of certain innovations in the VET system and the standardization of education thorough a competency-based approach, VET teachers should facilitate cross-sectoral communication (integrate professions), manage projects and processes, demonstrate interculturalism

and openness (find ways to solve issues based on an analysis of international experience and cultures), comprehend the performance on a reflective ground, use information and communication technologies on a large scale and work in a team, including in uncertain and rapidly changing situations conditions (Kravets, 2017, pp. 54–57). The development of modern state standards requires both a competency-based approach and modular training. They are characterized by a flexible system of a module creation, which allows educational institutions (e.g., Higher Art Vocational School No 5 in Vinnytsia) to incorporate the needs of the labour market, employers and innovations in certain industries into the content of modules. Vocational training of skilled workers in painting and restoring decorative and artistic colours consists of 12 modules (by the analogy of German partners). At the same time, the completion of modules 1-10 amounts to a qualification of a highly skilled worker, and modules 11-12 – junior bachelors in construction and civil engineering.

According to N. Abashkina (2006), German specialists regularly achieve high economic indicators due to dual vocational training (p. 6). Dual training has a long tradition in Germany and is characterized by high quality throughout Europe. The duration of such training depends on specialization and is 2-3.5 years. Competitive admission takes place in terms of filling each training place since there are far more applicants than vacant places. All applicants must pass an advanced test for aptitude and professional suitability to qualify for such training. Subsequently, enterprises enter into a training contract with selected applicants. At the same time, not all enterprises are entitled to teach. They must have a relevant license awarded by the Chamber of Crafts and Trades in Germany and meet all the requirements. Indeed, enterprises can teach only those courses covering the profile of their activities, be equipped with the necessary machinery, training aids (training programmes, professional journals and literature) and employ a sufficient number of skilled masters whose workload allows them to participate in the educational process. These masters must also be certified by the Chamber of Crafts and Trades. In this regard, they must have an appropriate level of professional knowledge and skills, as well as pedagogical training. These aspects can be checked employing a special exam, after which masters can participate in such training. There are also pupil quotas according to the number of staff: one pupil is assigned to three masters. Most of the educational time is spent at enterprises (3-4 days per week), whereas 1-2 days per week are allocated for developing theoretical knowledge (8-12 hours). Enterprises pay pupils a wage at a rate that is less than that of a graduate (on average, it is 737 euros per month, but the sum

can vary significantly by profession, region and industry). Specialists in construction (bricklayers, builders of reinforced concrete structure and tilers) are paid less than a thousand euros, and the lowest salary is paid to florists and hairdressers in East Germany, namely, 312 and 269 euros per month. Another advantage of this system is that it is open to graduates of all types of schools, regardless of the certificate. Even those who have not graduated from school can pursue vocational education and thus secure a professional future. According to statistics, within the dual vocational training system, 4% of pupils do not have a certificate, 33% of them have a basic secondary school qualification (Hauptschulabschluss), 43% of them – an intermediate school-leaving qualification (mit mittlerem Abschluss) and 20% of them – a certificate of complete general secondary education. Equally important is the fact that, in most cases, graduates are employed by the enterprises where they underwent such training. Recently, the classical system of dual vocational training has been realized by creating places for practical training at the level of higher education. Dual higher education combines classical higher education with professional or practical professional activities at enterprises. On the one hand, such training is rather expensive for enterprises, since, in addition to the payments to pupils and social taxes, they assume the payment of tuition fees in higher education. Germany, however, still prioritizes well-educated practitioners (Solovyova, 2013, p. 96).

4. Conclusions

It is strategically important to justify the possibilities of using creative and effective ideas of German experience in introducing social partnership in vocational training of highly skilled construction workers at national and regional levels is of strategic importance for developing vocational education in Ukraine. One of the important objectives of improving the VET system for highly skilled construction workers in Ukraine is to develop social partnership and cooperation with employers, as well as introduce elements of dual training, modular training and multi-source financing.

A comparative analysis of the main trends, characteristics and principles of vocational education in Germany can serve as the basis for strategic development of vocational education in Ukraine and other countries to achieve a European level of educational standards, taking into account national characteristics, which necessitates the modernization and expansion of professional functions of vocational education, as well as its transformation into VET.

Therefore, vocational education results in readiness to fulfil responsibilities, strive for professional development, continuing education and self-study and reinforce social and professional stances. The VET system abroad is an integral part of continuing education, encompassing all qualification levels and being closely linked to general and higher education. Accordingly, employment and social policies of such states are based not only on vocational training but also on the enhancement of competitiveness, business activity and innovation in the context of a globalized economy, as well as equality, unity, personal development and active citizenship.

The materials covered in the paper can be implemented in the areas for improvement of vocational education in Ukraine and other countries at different levels, the teaching of vocational training courses and in the system of advanced training of teaching staff towards expanding cooperation with international partners and studying international experience.

The described mechanisms of the German VET system, as well as a comparative analysis of VET development in Ukraine, can be used by other vocational education institutions in their respective practical activities. The paper justifies theoretical foundations and principles of the German VET system in the context of a comparative analysis of VET development in Ukraine based on social partnership. It covers a scientific justification of basic principles of vocational training for highly skilled construction workers in Germany, a brief description of consecutive improvement of training content in similar vocational education institutions in Ukraine and ways of updating all components of the educational process for creating the necessary preconditions for developing and improving the system of social partnership. Also, it further develops the theory and practice of vocational education, namely, the characteristics of development and functioning of the legislative activity and its importance for developing vocational education as an open system; the development of effective methods for organizing vocational training of highly skilled construction workers.

Acknowledgement

The research process itself took a long time and covered a wide geography of observations. All the authors involved in the project studied the educational process in the following three educational and production complexes: Lviv Higher Vocational Art College, Higher Art Vocational School No 5 (Vinnytsia) and Kyiv Higher Vocational School of Construction and Design, namely, two or three people in each institution to study the experience of training specialists pursuing the profession "Painter and Restorer of Decorative and Artistic Colours".

This training consists of 12 modules (by the analogy of German partners). At the same time, the completion of modules 1-10 amounts to a qualification of a highly skilled worker, and modules 11-12 – junior bachelors in Construction and Civil Engineering.

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