WORK-BASED LEARNING INVOLVING THE DUAL EDUCATION ELEMENTS

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Abstract. The article analyses the dual education capacity for implementing work-based learning (WBL) for future skilled workers in order to improve the quality and enhance their professional training practice orientation. It is emphasised on information accumulating in the national scientific-pedagogical dimension on dual education elements introducing into future skilled workers professional training. Therefore, the appropriate issues on relevance, expediency, perspective and necessity are actively studied. It is noted that dual education applying is to create real production situations, assure cooperation of students and experienced mentors from enterprises, and demonstrate students’ autonomy and initiative in the workplace. It also represents the students’ involvement into professional culture and their professional identity, recruitment possibility for the youth of appropriate qualification, strengthening the practical component of professional (vocational) education (P(V)E) system, etc.

It provides characteristics for WBL activities and its main forms: work experience, traineeship, work-shadowing, mentoring, apprenticeship, cooperative learning, partnership-based learning, internship or work placement.

The article envisages WBL opportunities in terms of dual education elements implementing. They are the following: 1) vocational training as a means of achieving economic, social and individual goals; 2) vocational training as a task to be carried out in partnership between the government and the business community; 3) joint funding of vocational training; 4) social acceptance of vocational training, the main objective of vocational training; 5) to produce skilled workers with flexible qualifications who are mobile and capable of working in their chosen fields; 6) alternating learning situations in accordance with the dual principle; 7) qualifications of teachers and training personnel; 8) codifying quality standards; 9) balance between standardization and flexibility; 10) complementary programs run by schools or non-business entities; 11) creating a solid basis for decisions and design.

Keywords: work-based learning, dual education elements, professional (vocational) education schools, professional training, future qualified workers.

Introduction. The change of Ukraine’s social-economic development conditions in the framework of Eurointegration, demography, foreign affairs and domestic processes causes the range of transformations in all spheres of sovial life, especially education and industrial ones. The modern professional (vocational) education (P(V)E) system reforming is aimed to force its practice orientation, promotes innovative education-industrial environment creation in P(V)E institutions and active involvement of social partners – the workforce orders. Corresponding, studying the foreign experience on vocational education and training (VET) development and best practices implementing are becoming crucial. The most efficient and productive is the dual form of VET (Denmark, the Netherlands, Germany, Norway, Singapore etc.). Additionally to organisation conditions optimisation, responsibilities sharing it creates the positive circumstances for using all forms of work-based learning (WBL). It is actively promoted in the EU. Thus, taking into account the EU
countries' national VET systems specifics and gained experience on dual education use, there is a need to implement its elements into education practice of certain countries for strengthening their practice-oriented component of VET. Ukraine is not the exception that is why the following problem is crucial but not enough developed in the Ukrainian dimension.

**Materials and methods.** It is worth to mention the lack of fundamental scientific works on dual education implementing in qualified workers professional training. The processes of gaining the information of the topic is in place in the scientific and pedagogical sphere. Thus, the issues on up-to-datedness costs and benefits, prospects and necessity in the ongoing dual system implementing in Ukraine is actively discussed. For instance, there is an idea that the dual form of education as an example of education-industrial integration, provides an opportunity to refresh training-practice bases at P(V)E schools, strengthen the teaching employees' professional competence (involving experienced tutors from an enterprise, upskilling P(V)E schools masters at enterprises) (Kushniretsk, Syniura-Rostun, 2017, p. 28). V. Doctorovych (2017, p. 37) emphasises that dual training form implementing in P(V)E schools can help to solve the range of P(V)E system problems, in particular: non-correspondence of vocational training and high-tech industries development; imperfection of models for social partnership mechanisms; law vocational training practice orientation for certain enterprises; inadequate condition of P(V)E schools facilities and resources etc. One of the classifications by German scientists on the elements of the dual training form, suitable for import into VET systems of other countries, together with the SWOT-analysis of their implementation in professional training for future skilled workers of Ukraine were represented by N. Kovalaiev (2018). Those elements were also investigated and interpreted via the British and domestic contexts by S. Leu (2018). I. Boychevskaya (2009) summed up the social significance of their introduction for skilled workers professional training. She believes that the well-being of the entire society depends on the way the balance of interests between the employers' needs in new workers and their offer is found.

The research aim is in the analysis of dual form possibilities as the way for realisation the work-based learning for future skilled workers and increasing the quality and practice orientation of their professional training.

**Results and discussions.** In Ukraine, the interest to dual system has already passed the stage of its studying and is at the stage of its active implementing. In the Law of Ukraine "On Education" the dual form foresees combination of agreement-based at-schools, in-service and other types of training for gaining the qualification (the legislation of Ukraine, 2017). It promotes creating real in-service situations, students and experienced mentors cooperation, student's independence and initiative at their working places, student's perception of professional culture and professional identity, the possibility to fulfill the staff of an enterprise with young workers of appropriate qualification etc. It is important that in Ukraine the dual elements are being implemented into qualified workers training since 2015. The for purpose implementation is provided for 49 professions (2017-2020) and in 211 P(V)E schools (MoES, 2017-2018). It is necessary to mention that the Concept on training specialists upon dual form of education (2018) defines three realisation stages before 2023. Firstly, it is planned to develop the appropriate legislation basis (2018-2019), then typical models (2019-2020) and create clusters of dual education (2020-2023).

Conversely, in the EU dimension strengthening the VET system practice component is actively promoted via implementing different forms of work-based learning (WBL), especially apprenticeship. The aim is to involve social partners, companies, chambers and VET providers, stimulate innovations and entrepreneurship (BIBB, 2016). In the domestic dimension WBL is interrupted as training for gaining knowledge and skills in terms of direct (modelled) professional activity; is grounded on practice-oriented approaches and helps student to obtain knowledge, skills, form crucial for their professional activity competences (Pukhovskaya and others, 2017).

The analysis of the EU countries’ experience on WBL confirms the possibility to integrate that into the curriculum of general education and fulfill in close cooperation of a training institution and an enterprise or while in-service training. Thus, WBL is widely used for initial, further, advanced trainings or the re-skilling and upskilling ones etc.

In general, the WBL programs are flexible, adaptable and partnership-based. They provide the possibility to obtain complete, partial, additional short and long time courses of professional training. Nevertheless, the need in following courses is caused by the need of an enterprise at a certain stage. WBL assures a win-win situation when a student's needs and the demands of enterprises or sector demands are satisfied. There are several types of WBL.

*Work experience* covers any experience of a worker in certain sector or profession, mainly volunteer or the one that allows to "feel the professional environment". It is often used as an equivalent of traineeship in the American dimension.

*Traineeship* is an educational or training program that includes work experience and preparation of young people to their future professional activity with the purpose "to be ready for work". The following WBL
is perfect for 16-24 year young people to gain necessary skills and experience before starting their professional activity.

Work-shadowing or mentoring in general understanding means a trainee's support while his/her professional activity with detailed study or analysis. It is realised in some stages. The first one is work-shadowing and the next one (the higher one) is mentorship. In terms of mentorship the trainee's activity doesn't need permanent control, only observation. It is also used to accelerate the process of adapting the employee to new (changed) working conditions or tasks. The formula for mentoring success is “70/20/10”, where: 70% – in-service training, 20% – learning from others and 10% – classroom education.

Apprenticeship is a systematic long-term study. It combines both in-service and classroom training. It provides for the student the possibility to enter into a contract with the employer and monetary reward. In turn, the employer is responsible for organization the training and ensuring the obtaining of a particular profession (Pukhovskaya, et al., 2016, p. 37). Until recently, it had a rather narrow-profile character and literally meant the kind of practical training that the British called simply "sitting near Tom". Today it is one of WBL leading types in the United Kingdom of Great Britain and Northern Ireland and a full-fledged equivalent of the VET (legislation, regulation, support, coordination and management body – the Institute for Apprenticeship and Technical Education, apprenticeship standards, the network of educational institutions, etc. ) (Leu, 2018). In Germany, apprenticeship is one of the main types of practical training in the conditions of the dual VET system.

Cooperative training involves the accumulation of knowledge, skills, practical experience of all participants in the group and can be used both in an educational institution and in a company or other industrial or educational environment. In the conditions of cooperative education, the "competition of knowledge" is levelled out and the main attention is given to team-work algorithm development in order to achieve the goal.

Learning through partnership can be considered as the next step in cooperative learning. It involves not only the achievement of a common goal, but mutual learning, the development of new strategies and the adoption of common, compromise solutions, etc.

Internship or work placement is the most widespread form of WBL. It is widely used in schools of different types and levels of accreditation. The main purpose of manufacturing practice is to familiarize yourself with the production environment, develop or consolidate certain knowledge and skills in clearly defined terms and conditions. Often used as the equivalent of "work experience" and has a difference that manifest the trainee's decision.

Among the given concepts, the most commonly used are internship, traineeship and apprenticeship. These types of WBL are part of the European legal framework. They appear in national VET legislation, but are in different ways manifested in the organization and content of practical in-plant training (Bundesinstitut fur Berufsbildung, 2016). The practice of using dual education in the developed countries has shown that different types of training are actually implemented on the basis of productive activities. At the same time, the dual education elements are actively implemented into the training of future skilled workers in our country. They also provide opportunities for implementing WBL forms (Euler, 2013) (Table 1).

| Dual education elements | Possibilities for WBL realisation |
|-------------------------|----------------------------------|
| Broad objective: vocational training as a means of achieving economic, social and individual goals | Economic productivity and perspective planning of innovations in business, Students' social integration and individual development |
| Vocational training as a task to be carried out in partnership between the government and the business community | Joint development of educational standards taking into account professional standards, harmonization of curricula and programs, Independent employers' assessment of students' skills at exams and qualifications, Providing students with jobs at modern leading enterprises, Various social partners involvement in the educational process of educational institutions |
| Joint funding of vocational training | Dual training profitability for an enterprise, Attraction of third-party funds (from interested enterprises and business spheres), creation of employers' and trade unions' sector funds in terms of collective agreements |
| Social acceptance of vocational training | Implementation of professional-practical training directly on the latest equipment of a modern enterprise, Students' adaptation to the conditions of production and recognition of their professional identity, Students' salaries and social package |

Table 1
Results of data analysis testify the possibility of WBL implementation in terms of dual education. They promote:

- Improvement of pedagogical systems for future skilled workers professional training upon different profiles.
- Updating the goals, content, methods, technologies and means of professional training.
- Designing innovative education and production environment for P(V)E schools.
- Creation of the mechanisms for public-private partnership in P(V)E schools.
- Functioning of P(V)E schools as independent business entities in the labour market.
- Formatting the common goals and interests for P(V)E schools and enterprises – applicants for blue-collar workers.

**Conclusions**

Thus, WBL is seen as a powerful tool for on-the-job developing skills and increasing labour productivity. Its extremely high potential contributes to optimising time, effort and resources (human, material and financial). Understanding by educators of its kinds, their features and ways of realisation, in particular, through the introduction of dual education elements, promotes quality improvement and strengthening of the practical orientation for future skilled workers professional training.

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Навчання на засадах продуктивної діяльності з використанням елементів дуальної форми здобуття освіти

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Реферат. У статті проаналізовано можливості дуальної форми здобуття освіти як способу реалізації навчання на засадах продуктивної діяльності майбутніх кваліфікованих робітників для поліпшення якості та посилення практику орієнтованості їхньої професійної підготовки. Підкреслено, що у вітчизняному науково-педагогічному просторі відбувається накопичення інформації щодо впровадження елементів дуальної форми навчання в професійну підготовку майбутніх кваліфікованих робітників, а тому активно досліджуються питання актуальності, доцільності, перспективності та необхідності його здійснення. Зазначено, що важливість застосування дуальної форми здобуття освіти полягає у: створенні реальних виробничих ситуацій; співпраці учнів з досвідченими наставниками з підпрімства; провадіння навчально-підготовчих діяльності в тематичному порядку; співпраці з родичами, школовими закладами, друкованими засобами інформації; реалізації відповідної освіти інших навколишніх громадян. Охарактеризовані особливості навчання на засадах продуктивної діяльності (work-based learning) та його основні види: досвід роботи (work experience); стажування (traineeship); наставництво (work-shadowing); менторство (mentoring).
Показано можливості для реалізації навчання на засадах продуктивної діяльності (work-based learning) через упровадження таких елементів дуальної освіти, як: тривимірне призначення системи професійної освіти (економічні, соціальні, індивідуальні цілі); професійне навчання здійснюється в партнерстві між урядом і бізнес-спільнотою; багатопланове фінансування; соціальне визнання професійної освіти; підготовка мобільних робітників кадрів; навчання в реальних умовах робітничого середовища; систематичне підвищення кваліфікації педагогічних працівників навчальних закладів та наставників, інструкторів з підприємств; відфіксовані стандарти професійної освіти; універсальність та оптимальний зміст стандартів; різноманітні додаткові програми для навчання за дуальною формою; організаційний, науковий та методичний супровід професійної освіти.

Ключові слова: навчання на засадах продуктивної діяльності, елементи дуальної форми здобуття освіти, засади професійної (професійно-технічної) освіти, професійна підготовка, майбутні кваліфіковані робітники.

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