

EXPERIENCE OF PREPARATION OF COMPETITIVE SPECIALISTS IN THE CONDITIONS OF THE IMPLEMENTATION OF DUAL EDUCATION IN HIGH EDUCATION INSTITUTION

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Abstract. The article deals with the problem of competitiveness of higher education students in higher education institutions on the basis of the introduction of dual education, which includes the integration of the theory in higher education institution and practice in an enterprise (office). One of the educational tasks is to provide with a workplace the future specialist in practice and after completing the training, which will support the formation of the necessary competencies and make the student competitive in the labour market. The basis of the development and implementation of dual education is the experience of practice-oriented training in the German dual system and the corresponding models of their implementation. The advantages of this education are highlighted, and certain difficulties are noted, as well as the specifics of its implementation in a given country, taking into account the specifics of this country and its education system.

It is noted that the introduction of dual education involves a flexible organizational and management structure, innovative technologies, as well as cooperation with enterprises and institutions.

Keywords: higher education, dual education, practice-oriented training, professional competence, traditional education.

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Introduction

The training of highly qualified competitive specialists is the main task of a higher education institution that is up to qualities in the field where the future specialist plans to work and the requirements of the employer.

Development of the state, taking into account foreign experience, analysis of educational models, taking into account own experience of training of future specialists in higher education institution becomes the priority of each state.

One of the most important educational tasks is to provide the future specialist with a workplace. The search for a solution of this important task leads to the study of the experience

of other countries of the world, in which the combination of training and practice (work on a speciality) is carried out. It will contribute to the formation of the professional competence of a future specialist, that is, the introduction of dual education in the training of future professionals in higher education institution, in which an important role is assigned to the autonomy of higher education institutions, the mobility of educational programs, the combination of education, practice and science.

Analysis of studies

An analysis of previous studies suggests that the successful experience of introducing dual education in Germany, which began training specialists for this model since 1970 and its implementation in such countries: Austria, Great Britain, Denmark, Canada, Slovakia, France, Sweden, Switzerland, Japan has some advantages over the traditional system of vocational training. The dual system provides a close link between theoretical and practical training, theory with practice, reducing the gap between the enterprise (institution) and the educational institution. Among the publications, most of the issues of the implementation of dual education are in the works of N. Abashkina, I. Boichenko, E. Tereshchenkova, O. Zharova, S. Romanova, K. Khufner and others.

The authors note that the balance between the theoretical and practical parts is achieved through the streamlining of the educational process when the theory is studied in an educational institution, and practical skills – in the enterprise (office). Their common goal is to train qualified specialists in accordance with the needs of the labour market.

Experience of implementation of dual education in higher education institutions

Dual education and its implementation in higher education institution require careful preparation to adopt European experience to the conditions of Ukraine. Germany is the pioneer in this area. The analysis of the "Prospects for the Development of Higher Education by 2020" shows that by 2016 dual education was implemented interactively in three federal states: Baden-Württemberg, Saarland and Berlin. Currently, there are interactive processes for the introduction of the dual education system, the development of relevant programs, networking with enterprises, professional development programs (*Matveev, Umanova, 2016:73*).

What is a double internship program in Germany? It combines study at the University of Applied Sciences, at Professional Academy or University with real-life experience of work in the company.

The dual degree program complements university studies with a variety of practical forms at the enterprises (offices). After completing the program of dual education graduating student has not only theoretical knowledge but also know the daily work of the profession or industry.

Dual programs in Germany are available in rough variants for school leaver, especially for educational interactive and integrated one into the practice of double research.

1. In educational and interactive dual study program, students undergo a full-time professional training in addition to learning. In the end, they have degrees: a bachelor's degree from a university and a letter from a staff member. During the study, students go on the turn to their training company (office), vocational school and university.

2. In the practice of an interactive bilateral course of study, higher education is accompanied by longer-lasting practical stages in the enterprise (office). However, students do not complete the proper training, and eventually, receive a bachelor's degree. Typically, students and enterprises (offices) award a contract before starting a dual study program that governs the duration and content of the practical stages.

3. Extra-professional double courses are intended for full-time employees who wish to study in conjunction with work.

4. The same applies to interactive work programs. The only difference is that studies are conducted in parallel with part-time work.

In most dual programs, theoretical and practical stages interchange by units for several weeks or months. For example, students spend a semester at a university and a semester at the enterprise (office). In other programs, the change occurs weekly or even daily. Then students work at the enterprise (office) from Monday to Wednesday and attend the university on Thursday and Friday. The third option is preparation at a higher level. Here, students begin their vocational training only after the first year of study. Finally, the fourth option is disciplinary or online research, where students perform most of their tasks at home. Fachhochschulen (FH), Berufsakademien (BA) and Dual Universities offer the most dual study programs. Everyone who completes a double degree program with a bachelor's degree thus fulfils a formal requirement for a master's degree. Currently, an interactive process of adopting the German model of dual education in the USA, France, Austria and other countries of the world is taking place and requires appropriate analysis and adaptation to the existing education system.

The entry of Ukraine into the EU requires the internationalization of higher education, which requires the formation of intercultural competence of students of the higher education institution. Therefore, there is a requirement for employers to languages proficiency, intercultural communication skills, understanding the specifics of foreign markets, the work of enterprises, offices. This problem exists not only in Germany but also in other countries.

Considering the training of teachers in a higher education institution, a number of problems can be identified:

- the insufficient provision in educational institutions by teachers, lecturers of natural and mathematical disciplines;
- ageing of pedagogical staff, low motivation of young teachers;
- due to the lack of practice-orientation of educational programs, there is a problem of matching the level of training of young specialists to the requirements of the labour market;
- out-dated technical infrastructure on which the training of teachers (lecturers) is carried out, does not correspond to modern technical processes, etc.;
- the insufficient network of interactions with high education institution, institutions and other social institutions;
- the existing gap between theoretical training and the professional activity of the future specialist, which is due to insufficient involvement of employers in the development of educational programs;
- an international component of training and advanced training of teachers (lecturers) is not developed;
- insufficient use of practice-oriented, project-oriented forms and methods of training in the educational process;
- reducing the study time on practice in educational institutions.

The elimination of the above-mentioned shortcomings in educational institutions will allow solving the following questions:

1. The development of network interaction will provide the opportunity for students to open access to the best training modules and network resources, to the experience of the best universities, their partnerships, provide practical orientation, high quality of training of future specialists.

2. Modernization of the curriculum with the corresponding development of the modules "Professional training and dual education system", practice-oriented and project-oriented education system, etc.

3. Development of modern educational programs, for example, "Educational management in the dual system of higher professional education", etc.

4. Development of modules for advanced studies.

5. Formation of network interaction for the purpose of development of the dual system of education in educational institutions.

For pedagogical education in the conduct of the dual system, the combination of professional skills with the fundamental training of teachers (lectures) is different.

The advantages of dual teacher (lectures) training are:

- preparation of the student for practice (the student learns not to feel fear of real activity), key competencies are developing during the period of training;
- integration of theory and practice allows you to save time since it does not require an additional unit of practical training after the completion of the theoretical one.

At the same time, a certain disadvantage is the loss of the value of theoretical knowledge, there are significant costs during training, reduced time on vacation, and the requirements for theory and practice are the same.

We distinguish certain problems of the implementation of dual education in higher pedagogical institutions:

1. Sufficiently weak development of theoretical and methodological foundations for dual education in pedagogical education.

2. Difficulties in the practical implementation of dual education.

3. Lack of state legal framework for the implementation of dual education in pedagogical institutions of higher education.

In order to improve the professional training of a teacher for dual education, the following tasks must be solved:

– on the basis of the analysis of scientific researches, the generalization of pedagogical experience, it is necessary to develop the scientific basis for the introduction of dual education in the system of pedagogical education;

– based on the analysis of organizational and regulatory conditions, to determine effective mechanisms for the introduction of dual education in pedagogical education;

– to identify the main ways of introducing dual education into the system of pedagogical education based on the analysis of practical and scientific and methodological work experience;

– to develop a program for the introduction of elements of dual education of teachers, to test and determine its effectiveness.

The implementation of elements of dual education in pedagogical higher education institutions is carried out on the basis of:

– practical training;

– theoretical and methodological developments of scientific bases of dual education;

–organizational and normative developments, regulatory and legal documents that ensure the effective implementation of dual education.

Currently, the system of dual education, which combines teaching theory in an educational institution and training in the enterprise (office), successfully operates in Europe.

Germany is undoubtedly a leader in solving staffing issues that are being solved, mostly, at the school level. In the world there are several models of dual education, according to the existing conditions, one chooses the most promising form of implementation of the dual system of education. One of the options for the implementation of dual education involves studying the theory with its practical application in an educational institution. Such a possibility of obtaining a full-fledged pedagogical education without an increase in the terms of study has certain advantages. Along with this, there are some problems: the need to change certain normative documents in the field of higher education. This program is designed for highly motivated students who can independently study. In this process, network technologies and the filling of the corresponding educational and methodological support, i.e. the creation of the informational and educational learning environment, play an important role. Thus, the use of the virtual learning model is one of the conditions for the implementation of this model of dual teacher training, enhancement of their qualifications.

Today, the classical system of dual vocational education is complemented by the creation of places for practical training at the higher education level. Dual higher education combines classical higher education with vocational education or practical professional activities in an institution (enterprise). From this aspect, such training is expensive for an enterprise (office), since, besides paying a scholarship to a student, the enterprise (office) assumes payment for education fees in higher education institution and corresponding social deductions.

Dual higher education is divided into three types (Duales, Studium):

1. Integrated into education that combines classical education in a higher education institution with a practical vocational education in a certain speciality (according to the standard). Upon completion of training, the graduate receives a diploma in higher education and professional, special education. The condition for such training is the certificate of secondary education or secondary specialized education, as well as the existence of a contract and agreement with the enterprise (office) for such training.

2. Integrated into professional activity that is designed for those who already have completed vocational education or many years of experience in a particular speciality. This form of training primarily corresponds to the development of qualifications.

Before the beginning of the study, a three-party agreement is concluded between the higher education institutions, those who study, the enterprise (office). In this agreement, it is indicated on which days the training is carried out in the higher education institution, and in which - at the enterprise (office).

3. Integrated into practice that is a type of combined training in which long-term practice in the enterprise (office) is foreseen. This direction does not involve obtaining two diplomas. A condition for entrance is the possession of a certificate of secondary or secondary special education.

The success of the dual education system in Germany is explained by the bilateral benefits of all participants in this process, as well as for the state.

The advantages of dual education are the following (*Astheimer, 2013*):

–the training is closer to practice, focused on the implementation of specific production tasks;

- the educational scholarship is paid for the full term of study;
- high probability of getting work and previous practice;
- the highest demand for graduates who have studied by the dual system is on the labour market;
- to build their own career through advanced training and further education at the university;
- during the study students will get acquainted with all departments of the enterprise (office);
- the educational process is constructed in such a way that all theoretical material is tested in practice (at the enterprise);
- the absence of homework frees time for their own needs from the enterprise (office);
- provision of the enterprise (office) by qualified professionals;
- performance of work by motivated and proven employees;
- lower turnover of personnel;
- the absence of the period of adaptation to the enterprise;
- training in the enterprise;
- renewal of staff;
- improvement of the image of the enterprise;
- productive work of students;
- there is an opportunity for the enterprise (office) to give a successful professional start.

The state is also interested in the implementation of dual education and the increase in the number of students studying in dual education. This is due to the fact that such education finances itself and still makes a profit.

Thanks to the dual system of education in Germany, it is possible to integrate young people into the primary labour market.

The German model of dual education is now widely used in Austria, Switzerland, Spain, Greece, Italy, Canada, Denmark, and others. So, it should be noted that the system of dual education has problems (*Amelina, 2010: 107-112*):

- not always the enterprises (offices) are ready to give places for training;
- some inconsistency between the proposed places and the realities of life, which leads to a competition for one job, or the absence of applicants for employment;
- candidates are not always satisfied with the requirements that are put forward by them within the framework of dual education;
- not always exist guaranteed quality of education (for this purpose, there was a need for studying innovations at the existing enterprise (office) and it will provide an opportunity to carry out more qualitative training of specialists.

Conclusion

Professional training exists in many countries, but dual education and its models that are developed and elaborated, have gained popularity not only in Germany.

So, Ivanka Trump, adviser of US President Donald Trump, expressed interest in the dual US vocational training system. Speaking in the German weekly "WirtschaftsbWoche" on April 24, 2017, Ms Trump emphasized that she wants to study Germany's success and work with US educational institutions to upgrade their vocational education models.

In Ukraine, the urgent need to develop its own model of vocational training (dual education) has risen, but one must understand that there are certain difficulties in developing dual educational institutions:

- lack of legal framework;
- lack of awareness of future employers of the importance and promising outlook of this education;
- expansion of the spectrum of enterprises (institutions) that are ready to undertake the training of students and provide the basis of practice; providing real and within the realm of possibility paid work.

References

- Amelina, S. (2010). Features of the dual system of higher vocational education in educational institutions in Germany. Scientific Journal: Problems of labor and vocational training, 15. [in German].*
- Astheimer, S. (2013). Duales System Ausbildung made in Germany. [Electronic resource]. Retrieved from <http://www.faz.net/aktuell/beruf-chance/arbeitsweet/duales-system-ausbildung-made-in-germany-12089806.html>. [in German].*
- Duales, Studium – Studieren und Berufserfahrung. (2019). Ein Angebot der Hochschulrektorenkonferenz. [Electronic resource]. Retrieved from <https://www.hochschulkompass.de/studium/rund-ums-studieren/studienformen/duales-studium.html>. [in German].*
- Matveev, N. V., Umanova, I. A. (2016). Dual education expands the boundaries: the outline of a new international project. Academic Journal of St. Petersburg branch of the Institute of Education Management: Man and education, 11 (46). [in Russian].*