

Yevseytseva O.S., Kolesnyk B.O.

Kyiv National University of Technologies and Design

COOPERATION OF BUSINESS REPRESENTATIVES WITH HIGHER EDUCATIONAL INSTITUTIONS WITHIN DUAL FORM OF EDUCATION AS A METHOD OF EDUCATIONAL INNOVATION

Abstract. *The globalization process, rapid development of science and technologies, the spontaneous speed at which new knowledge that are required by modern specialists emerge, the entry of Ukraine into the European educational environment are determining the need for Ukrainian higher education institutions (HEIs) to implement educational innovations. There is a process of Ukrainian higher education system modifying which is aimed to ensure better quality of education, higher competitiveness and employability of its university graduates. Also, dual education system will definitely affect graduates' status in the national labor market. The main focus is on developing a synergy of higher education and industry, a comprehensive integration of universities, technical and professional schools, on the one side, and key employers and leading industrial enterprises, on the other. Thus, higher education institutions in Ukraine must intend to improve the quality of education. Today we can state that the most prestigious higher educational establishments, including those existing and developing for centuries, have low indices compared to the actual world ratings. This fact has motivated the leadership of HEIs and The Ministry of Education and Science of Ukraine to begin the respective discussion. Nowadays, it is important to find the different ways of the higher education institutions cooperation with enterprises and implementing educational innovations; make an analysis of the current educational program and various teaching approaches of knowledge actualization. The article elucidates approaches to educational innovations in Ukraine and worldwide; analyzes the essence of the concepts of educational innovation, practice&activity approach in education, its functions, advantages and methods of integration into the educational programme; characterizes conditions for effective training of bachelors with the purpose of satisfying the demand on the labour market; outlines the ways of effective implementation of students' professional practices on the enterprises which cooperate with the university on a permanent basis.*

Keywords: *innovation; cooperation of HEIs and enterprises; educational programme; practice and activity approach in education; professional practice of students; light industry's specialist; dual education system.*

Євсейцева О.С., к.е.н, доц., Колесник Б.О., студент

Київський національний університет технологій та дизайну

СПІВПРАЦЯ ПРЕДСТАВНИКІВ БІЗНЕСУ ТА ЗАКЛАДІВ ВИЩОЇ ОСВІТИ В РАМКАХ ДУАЛЬНОЇ ФОРМИ НАВЧАННЯ ЯК ЗАСІБ ОСВІТНЬОЇ ІННОВАЦІЇ

Анотація. *Процеси глобалізації, стрімкий розвиток науково-технічного прогресу, стихійна швидкість появи нових знань, що необхідні сучасним спеціалістам та входження України до європейського освітнього середовища зумовлюють необхідність українських закладів вищої освіти впроваджувати освітні інновації. У статті висвітлені підходи до інновацій в освіті в Україні та світі; визначено сутність понять освітня інновація, діяльнісний підхід в освіті, кооперація університету та підприємця; охарактеризований діяльнісний підхід в освіті, його функції, переваги та методи інтеграції в освітню програму; охарактеризовано умови ефективної підготовки здобувача освіти з метою задоволення попиту на ринку праці; окреслено шляхи ефективного впровадження на постійній основі виробничої практики студентів на підприємствах, що співпрацюють із закладами вищої освіти.*

Ключові слова: інновація; співпраця ЗВО та підприємств; освітня програма; діяльнісний підхід в освіті; виробнича практика студентів; спеціаліст на підприємстві легкої промисловості; дуальна форма здобуття освіти.

Problem statement. Considering the problems of Ukrainian higher education, one cannot ignore the presence of a large number of critics of the HEIs' educational program both among scientists-members of educational institutions of all levels of accreditation, and society as a whole. From the active debates of educators, entrants and business representatives, we can conclude that the competitiveness of Ukrainian education in Europe is very low due to the needs of the domestic labor market for professionally trained workers, who could immediately, without additional training, perform duties at various enterprises in Ukraine. The outflow of students to foreign, European HEIs due to the lack, in their opinion, of relevant educational programs in Ukraine in some professional areas, only exacerbates the employers' problem of finding staff. Representatives of small and medium-sized businesses are especially affected by this problem, as they cannot train specialists on their own due to the lack of time and money.

The question of the educational program' relevance and the acquisition of practical knowledge; a significant gap between what business representatives require from a specialist and what exactly, in what form is taught in higher education institutions. All these are the reasons for the low level of employment in one's own specialty: according to the international Internet portal "HeadHunter" in Ukraine, only 44% of Ukrainians practice their professions, which is much less than in most European countries [7].

A significant problem is that management of both public and private Ukrainian universities very often understand innovation in education as, mostly, technical innovation. Storage, dissemination and visualization of information using the latest technologies, e.g. special training systems – all these tools are really effective in teaching the material, but the educational material itself can be rarely called result-oriented in manner, which will satisfy the average entrepreneur; we can talk about the HEIs' crisis of "customer orientation". The nationwide survey "Ukrainian Generation Z: Values and Landmarks" conducted by GfK Ukraine, found that the vast majority (43%) of Ukrainian youth believe that education and educational institutions in Ukraine do not meet the needs of the modern labor market [11]. Among the problems, that cause dissatisfaction with education, are the lack of good practice and innovation, as well as the curriculum's overload of the "excessive" subjects that are not connected with a specialty.

In general, the main barrier to an acquisition of practical skills by students, is the low quality of conducted student internships or its complete absence. The integration of such elements into the education system is, undoubtedly, a progressive solution; however, such training activities are hampered by the companies themselves – in most cases, they are extremely reluctant to accept students and are in no hurry to enter into agreements with HEIs. Employees of these companies do not understand how they can benefit from the given opportunity of conducting free internships, despite the fact that employers are the biggest critics of higher education and supporters of its speedy reform. The reason may be the insufficient development of communication between HEIs and enterprises, as well as the lack of cooperation experience on both sides concerning the process of compiling the curriculum.

Analysis of contemporary studies. The problem of innovation in education and reform of higher education is considered by scientists in Ukraine and throughout the world in various aspects: the state of the educational services' market in Europe (Francesco Avvisati, Sara Hennessy, William Baumol, Dominique Foray, David Hargreaves) and forms of interaction with entrepreneurship (Larry Berger, David Stevenson); innovations in US higher education (Peter Serdyukov); the essence of innovations in education and substantiation of

their necessity (V.V. Tretko, O.A. Dubaseniuk, G.P. Klimova, E.V. Siriy); reforming higher education in Ukraine, the practice of implementing educational innovations and staff training for HEIs (S.V. Ivanova, R.S. Gurevich, I.A. Zyazyun, A.I. Kuzminsky); changes in the educational program, proposals on the content of professional training of students (N.Y. Chikun, B.K. Pasalsky), and other.

Definition of objectives. The purpose of this article, as a part of the scientific research, is to determine the place and role of cooperation of higher education institutions with enterprises, while implementing educational innovations in terms of practice&activity approach in education and the educational program's modernization; analysis of current educational material; presentation of various teaching aids and approaches regarding actualization of the knowledge.

Presentation of the primary material. "Innovation" is a concept, the essence of which is revealed by the words "introduction" and "renewal"; experimental or planned process of implementation of original, non-standard ideas, ways of obtaining the necessary results. Educational innovation is the introduction of new forms, methods and semantic load of the educational process. Like any innovation in general, educational innovations are the result of scientific study and relevant research, and in case of educational innovation – result of the work of both educators and representatives of related or even random professions, who are in different circumstances become participants of the natural change in education movement. The most famous classification of innovations is the typology of A.I. Prigogin [3]. He points out, that, by the type, innovations are divided into logistical and social. The structure of logistical innovations includes machinery, technologies, production materials. Social innovations include: economic, organizational, managerial, legal, and pedagogical forms. In the current conditions of Ukraine's HEIs functioning, which are formed under the influence of the need for European integration, it is necessary to focus not so much on material and technical, but on social and managerial innovations. The reason is that educational innovations, that do not require financial subsidies (this is specifically applies to state-owned institutions), can be implemented in the educational system of Ukraine as soon as possible.

Practice and activity approach in education. As stated in the resolution of the Cabinet of Ministers of Ukraine, namely "State standard of basic and complete secondary education", the practice and activity approach is the focus of the educational process on the development of personal skills, practical application of acquired knowledge in various subjects, successful adaptation in society, professional self-realization, formation of collective activity abilities and self-education [2]. It has been repeatedly stated, that the world community needs such learning outcomes, by which a person is able to apply the acquired knowledge and acquired skills in the necessary situations [5]. This implies the availability of modern educational technologies, that would simplify the training of skilled workers for the labor market. In past, educators have already recognized the fact, that knowledge can be obtained only in the process of its use. At the same time, entrants are choosing HEIs to study at because they want to get applied knowledge – qualification of an employee of a certain level in a certain specialty. How to make a curriculum in this situation? As Y.G. Fokin argues, in order to implement any approach in education, it is necessary to analyze its benefits before the curriculum is drawn up: "... the program of the academic discipline is a "basement" on which it is necessary to put "pillars" for the technological support of specific classes in the academic discipline. The program provides some initial state and final control, it also sets the content ... Meanwhile, as the "basement" it is necessary to use a method of such transformation, developed in advance, which must be separated from the program of educational discipline. Only then can a strictly developed technological program appear above this "basement" [10]. Practice and activity approach in education is a way to effectively

transform students into qualified specialists, that are needed by enterprises on the Ukrainian labor market.

Involvement of Ukrainian entrepreneurs into cooperation with HEIs. Establishing communications with medium and large enterprises is the most important part of the strategy on the way to educational program's reform. International experience shows, that effective education is impossible without cooperation with business. For example, Aalto University, Finland has developed a program of "individual business processes" [8]. Projects under this program introduce students to various aspects of the enterprise – marketing, finance, logistics and other activities. During the time of such projects, the higher education institution forms a research group consisting of 2–5 final year students and a teacher, appointed by the group leader. Most often, the work of students at the enterprise is either analysis, planning or benchmarking (description) of the company's processes. Students are selected individually for each project from different faculties of the HEI, they also receive monetary compensation for their work, which further motivates them. The Swedish Uppsala University, Jönköping University and Örebro University have joined together within the framework of the "ACCESS" regional state partnership to provide professional support for small and medium-sized businesses. The organization helps HEI's employees, students and entrepreneurs to meet and start joint activities [9]. Speaking of German universities' experience, their education is mainly based on involving students in cooperation with business. About a third of German students choose the so-called "Fachhochschule" (an institute of applied sciences), in which a one-year internship at a specialized company is a prerequisite. The Berlin University of Applied Engineering and Economics (Hochschule für Technik und Wirtschaft Berlin), which is a leader in the ranking of the best universities in terms of employment of its graduates in their specialties, has created an entrepreneurial cluster "Science and Practice". It is mostly engaged in employment of students in accordance with their profession [1]. In contrast, US educational institutions are characterized by the involvement of business in the development and management of educational programs and courses. One of the main demonstrations of this interaction is a so-called "Capstone Project" written by students – a final qualifying work based on solving a real business problem offered to students by enterprises' representatives.

In Ukraine, the attitude of business to universities as such, seems to be the greatest problem. Since many workers (and executives) of modern enterprises obtained their degree during the 1990s, when higher education in Ukraine was in the early stages of its transformation, the idea in their consciousness was formed, that domestic higher education institutions as such are incapable of professional training, especially in new, humanitarian areas. Moreover, unlike foreign businesses, Ukrainian entrepreneurs do not see the institute as a place, where they can find a solution for various problems, but consider it only as an organization, that produces "raw", untrained personnel. However, researchers and faculties' members can easily help businesses with such issues as: consulting, lectures and courses; skills development and advanced training; publication and distribution of educational literature; conducting researches, studies over technical development, products and services' designing (exploratory works); conducting research on the development of, for instance, certain sectors of the national economy (conjuncture research); designing, development, testing and even production of experimental samples, batches of materials, substances, devices, equipment; implementation of activities related to exhibitions and fairs. The most successful HEI, from the business relations' point of view, will be able to establish business schools (an institution granting MBA degree) in its structure. All these services, which HEIs are able to provide, will undoubtedly, significantly improve the entrepreneurs' attitude to a university.

Apart from the matter described above, we should highlight not only the participation of HEIs in the enterprises' activities, but, on the contrary, the participation of organizations in

the work of a university, through the educational process. Very often scientific and pedagogical workers face a situation, when, for the sake of greater clarity or practice&activity approach's functioning, it is necessary to either demonstrate a theoretical basis in action or find input data for some educational tasks. It would be more effectively to use the real or near-real data in the educational program, than picking up necessary information in theory. Let us suppose, that an enterprise can provide its actual documentation (which does not disclose trade secrets), reports and analytical data, service software, and demonstrate its product or service. In this case, motivation of the company is to provide the necessary information or tool, in order to be able to monitor the educational process and take into account results of teachers and students' works. However, provided that students would choose real enterprises with real problems and goals, after a while representatives of these enterprises will be able to get acquainted with the proposals of students, and note certain theses. In addition, allowing companies to set their own tasks for students (for instance, extracurricular activities, on the condition of rewarding those, who have especially assisted a company) would significantly improve relationship between the management of HEIs and enterprises.

Agreements at the highest levels on cooperation between enterprises and a university, inclusion of edits directly in the educational program, would show to business, that Ukrainian educational system produces high-quality staff and funds in its development must be invested – much smaller amount of money than in case of training workers on one's own. The above-named HR portal "HeadHunter" in Ukraine conducted a survey among employers, in which it was found, that at the initiative of management, more than half of office workers (65%) have received additional education. Most frequently, employees of large, financially stable companies are trained; the larger the company, the higher percentage of those, who are trained. In 77% of cases, additional training is provided at the expenses of employer [6]. In such situation, what opportunities do exist for cooperation between HEIs and business, which wants to invest in its future employees? An enterprise may, for example, provide a license or remote Internet support for specialized computer software, or access to specialized courses, or other Internet resources. With this software or other tools, a student could solve problems that are work-related. The very concept of an educational program, which does not emphasize how working tools (such as specialized software) work and what they are based on, but how to use them in practice and get concrete results – this requires a modern material and technical base. Though, particularly the prospects of students' mastering their skills of solving work-related problems, using tools, which are currently used at these enterprises only, is a very attractive to the employer; therefore, in this case we can hope for effective cooperation with entities. In the context of cooperation of HEIs with enterprises in one of these areas, the latter will be more willing to conclude agreements on internships, and may discuss their vision of the internship's plan.

The GfK Ukraine survey also showed that 52% of students report impossibility or formal completion of an internship. At the same time, less than a half of the respondents (37%) participated in apprenticeship or internship while gaining a degree [11]. To prevent such scenario, higher education institutions enter into agreements with those companies, that can be considered optimal in terms of the educational process. At the same time, it is common, unfortunately, that a number of enterprises, cooperating with the HEIs on this issue, is extremely limited, especially if it is not directly related to the primary university's specializations. As far as any organization has a certain limit on the number of students involved, a HEI involuntarily creates unequal conditions for students, which is contrary to European principles of education.

The reason of the limited cooperation with business representatives is the low motivation of the latter to perform their duties in accordance with the proposed internship

agreement. An enterprise does not see objective benefits in attracting students for a few weeks and is openly afraid of organizational worries; it is also biased in concluding an agreement with a government agency (if it is a state HEI), while having no desire of taking on any serious responsibilities. It is possible that cooperation with an enterprise should not begin with a conclusion of agreement, but rather with exchanging experience and knowledge, which will contribute to the joint conclusion of an educational program. In considering a foreign experience, it is usually advantageous for companies in the West to invite undergraduate students as temporary employees. Many companies may be interested in promoting their own approach to the vision of the industry and spreading their professional worldview among the youth. New ideas from a person, who has not yet worked for the company, sometimes make it possible to find non-standard solutions to problems. In most European countries, an internship lasts for about a month. Some entrepreneurs consider internships as some kind of volunteer activity. In European organizations, students mostly observe business processes without interfering, while in some cases they are entrusted with responsible tasks. Attention is paid to provide knowledge to a student in his professional discipline. In the United States, a student during his apprenticeship is considered as a full-fledged employee, aside from a smaller number of responsibilities. A company pays salary to a student, but is less worried about student's education. However, most such programs in the United States last from 6 months, which is less reminiscent of an internship.

Thus, a way of conducting internships effectively includes interest of an entrepreneur in this kind of students' activity, efforts of integrating students into an organizational structure. Concerning the evidence of the usefulness of such measures, it should be: successful experience of updating a curriculum; other cooperation with HEIs, as well as a clearly defined agreement on the organization of internships, concluded for a period of at least 1 month.

Given all of the above, the directions of HEIs' cooperation with leading companies or productive organizations seems promising and clear. Of course, it depends on the specific HEI and company, regarding what changes will be made in the educational program. This individual approach may seem somewhat different, but if you take companies of the same industry, proposals for the disciplines will be similar. This is exactly an impetus for a project preparation of the new form of education in Ukraine. According to the order of the Cabinet of Ministers of Ukraine, dated September 19, 2018 under number 660-r, the Concept of training specialists within dual form of education was approved. Dual form of education is a method of obtaining education, which combines persons' training in educational institutions with training in the workplace at enterprises, institutions and organizations in order to acquire certain qualifications, usually on the basis of a contract for dual education [4]. Implementation of pilot projects was expected during 2020, and creating dual education clusters on the basis of competitive educational institutions and interested employers is planned for 2020–2023. Equal partnership between employers, educational institutions and students is designed to develop vocational education in Ukraine, as labor market is dissatisfied with the current level of its quality. For instance, representatives of the Ukrainian Association of Light Industry "Ukrlegkprom" have repeatedly noted, that light industry's enterprises need employees in various specialties. This necessitates the participation of Ukrainian HEIs in the dual education system.

An effective learning process cannot be implemented, if students do not gain experience, while: working with the necessary software to solve relevant work-related tasks; collecting and processing of analytical data at an enterprise using up-to-date tools, working with clients and maintaining necessary reporting; understanding ways of solving problems related to e-commerce, etc. All of these – on real examples, based on patterns (algorithms) of completion of the corresponding tasks at the profile enterprises. In order to implement

initiatives, that will provide such opportunities to students, Ukrainian HEIs also need to join future training programs within the dual form of education.

Key findings. At the present stage of development, Ukrainian higher education institutions should rely on social and managerial educational innovations, as well as gradually introduce the practice and activity approach in education to the curriculum. Ukrainian labor market is in dire need of skilled workers, but currently companies are not aware of importance of the cooperation with higher education entities. The partnership of universities and enterprises can significantly save latter's funds for additional training of staff. International experience shows, that the applied nature of training is a key to successful employment of most of graduates. Ukrainian entrepreneurs, first of all, should consider an HEI as an organization, that will help in solving of certain issues, which are relevant to business. Agreements at the highest levels on cooperation between universities and companies will help to establish several areas of interaction, in which students' internships lead the main role. As far as the reason for the limited cooperation of HEIs with business is low motivation of companies' representatives, partnerships should be developed in a manner, when the first step is to interest an entrepreneur in attracting students for working in specific areas. Solution to this problem is the Concept of training specialists within the dual form of education, adopted by the government. Ukrainian HEIs should participate in programs, based on this concept, as such initiatives are no less relevant for higher education entities, than for vocational schools.

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