Research Methodological Guideline on Work-Based Learning in Higher Education

FlexWBL version

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VERSIONING AND CONTRIBUTION HISTORY

Version	Date	Revision description	Partner responsible
1	15.05.2020	Draft version	P4 (TvSU)
2	01.06.2020	Draft version, revised edition and added WBL in Latvia	P1 (LIEPU)
4	13.06.2020	Draft version, added WBL in Lithuania and Austria	P2(KU), P3(PH-Linz)
5	20.06/2020	Draft version, added 21st component in Annex 1	P9(GSU)

Content

Acronyms

CPD = continuous professional development

EQF = European Qualification Framework

ETF = European Training Foundation

FGOS = Federal State Educational Standard

HE = higher education

VET = vocational education and training

WBL = Work-based Learning

Abstract

The document describes the methodological guide for the implementation of the project 610072-EPP-1-2019-1-LV-EPPKA2-CBHE-JP FlexWBL: Development of a flexible, innovative and practical framework for Work-based Learning in higher education of Armenia and Russia. It contains a statement of the problem and a description of the project concept. The Guideline shows the sources of the emergence of Work-based Learning models in higher education as a response to the demands of the labor market and economy. The Guideline describes the features for creating Work-based Learning Curricula at universities, their distinctive characteristics, based on the experience of the UK and the EU countries. A brief overview of the underlying pedagogical theories and practices is also given. As a main result, a table is compiled of 20 components of Work-based Learning that are subject to research in the project, their description and development in practice.

Common and specific project objectives within Erasmus+ Capacity Building in Higher Education

This project is carried out in accordance with the grant application Erasmus+ 2019 / Key Action 2 / Capacity Building in Higher Education with the established national priorities of Armenia and Russia: Developing the Higher Education sector within society at large / **University-enterprise cooperation, such as support for students' practical placement, entrepreneurship, employability of graduates**

Topics this application addresses:

- New innovative curricula/educational methods/development of training courses
- Quality and Relevance of Higher Education in Partner Countries
- Cooperation between educational institutions and business

Common goals and objectives for this type of project:

- Support eligible Partner Countries to address the challenges facing their higher education institutions and systems, including those of quality, relevance, equity of access, planning, delivery, management, governance
- Contribute to the cooperation between the EU and the eligible Partner Countries (and amongst the eligible Partner Countries)

Achieved by actions**:**

- Improve the quality of higher education and enhance its relevance for the labour market and society
- Improve the level of competences and skills in HEIs by developing new and innovative education programmes
- Strengthening relations between universities and the external economic and social environment

Specific project objectives:

- To create a platform for the implementation of a work- based learning (WBL) framework in the national HE systems of Armenia and Russia in order to bridge the gap between skills supply and labour market demands in university-enterprise network cooperation and the wider economic and social environment beyond 2020 according to the Paris Communique.
- To establish the WBL framework in the national HE systems of Armenia and Russia harmonized with EU best practices.
- To build capacity and capability within the HE sectors through the development of expertise in designing and implementing courses incorporating WBL
- To launch the WBL website and WBL Educators' Network
- To pilot the implementation of WBL framework in HEIs of Armenia and Russia.

The main concept of the project

The modern understanding of education is that a person learns all his/her life, education does not end after receiving a diploma, and the topic of lifelong education throughout the life has become relevant for research in education. One should not think that education is only lectures, textbooks and notebooks, as it is often represented by an ordinary person. The necessary specialized knowledge and skills are often acquired not theoretically, but in a practical way, during training and production practices, internships, and other forms of practical activity of the student, and, of course, directly in the work process at an enterprise. The academic and professional communities constantly maintain a productive dialogue based on the principles of parity and mutual benefit. This dialogue is necessary for joining efforts aimed at developing a "knowledge economy" and sustainable development of a post-industrial society, which are impossible without a flexible, continuous professional development system that meets the needs of high-tech production and an individual as well.

A huge number of people already working in production face the problem of improving their skills and require support from the national continuous professional development (CPD) system (Dremina et al., 2016). Someone solves this problem together with the employer through in-service training, others are looking for ways to improve their skills outside the production and in their free time. Many people solve this problem systematically and turn to universities in order to move from one skill level to another, for example, from the 5^{th} to the 6^{th}, from the 6^{th} to the 7^{th}, and finally from the 7^{th} to the 8^{th} qualification levels of EQF. Note that there are people who go to lower levels of qualifications and receive vocational education and training (VET). Someone, on the contrary, receives a second or even third higher education without interruption of their work. Traditionally, universities in the Russian Federation offer part-time education or extramural studies to such citizens. The statistics of the Russian Federation (Education indicators: 2020) for 2018 show that 43.1% or almost 1.8 million citizens of the country received education in absentia by distance learning. It is reasonable to assume that most of them really work and try to combine their work with studying at the university. The high popularity of part-time and distance learning is overshadowed by the fact that it is often rated by consumers and other participants in the educational market as second-rate and low-quality, despite all the high-profile statements by universities about its quality and curricula identical to full-time ones. It is impossible to simply demand an improvement in the quality of distance learning for people who try to combine work and study at the university. For a real breakthrough in this direction, innovative learning models are required that allow us to combine the accumulated experience and knowledge of a person working in production with his need for systematic advanced training at the university.

This project only partially addresses the issues of training at the workplace, i.e., Work-based Learning (WBL) in the literal sense of the term, as a continuation and addition of basic education in the form of practical training at work and intended to consolidate and hone students' professional skills that relates to students mainly in full-time education and to a greater extent for vocational education and training (VET).

The project team is aimed at creating a flexible and innovative framework for the development of specialized WBL (Work-Based Learning) Curricula in higher education in Armenia and Russia for those who already work, have some qualifications and want to get another, additional or go to a different level of qualification, combining work and learning. The question in this context is the

professional development of an employee at a university, his career growth, further education, and, as a consequence, the development of a workplace from the point of view of the employer. The university, in turn, must provide such an adaptive curriculum that will allow consensus to be found for all three basic actors of educational-production interaction: an employee, who is a university student too, an employer and a university. Only such training programmes make it possible for students who combine studies with work to comfortably take advantage of the proposals of universities that create a manageable format for WBL programmes, in which they can fit with their life needs and the requirements of employers.

A large number of publications in the scientific literature of the European Union, Great Britain, Canada, the USA and Australia are devoted to the problem of creating a learning environment corresponding to this type of university programmes, pedagogical theory and practice, administration issues, and other aspects, some of which are listed in the reference list of this report.

Emerald has been publishing a specialized magazine for 10 years **Higher Education, Skills and Work-based Learning**[1] devoted to the relationship between higher education and the workplace. Providing wide international coverage of problems, developments and innovations, the magazine demonstrates work on employer involvement, integrated training, co-operative training, graduate employment, professional competence, academic and professional standards, and workforce development.

We will also link to the online platform of the network of professionals «Work-based Learning and Apprenticeships»[2], where more than 200 European projects on the theme of Work-based learning have been collected, about 20% of which relate to higher education.

There are not so many literature in Russian on the subject of the project, so we mention the work of a team of authors led by Jon Talbot (2014, 2017a, 2017b), M.A. Dremina (2018a, 2018b), and V.A. Kopnov (2018a, 2018b).

Market demand

In the XXI century, with its continuous technical innovations, economic and social changes, options for methods and forms of higher education should correspond to the rapidly changing conditions of human existence and society. Companies express their willingness to participate in the life of the university when the content of training is related to their business needs and the interests of their employees. Employers are interested not only in well-trained and skillful, but also constantly developing employees. Due to the emergence of new priorities, the higher (professional) education and the employer require not just interaction with each other, but new approaches, effective and flexible training systems aimed at simultaneously achieving the goals of the employer, employee, university and other interested parties. Business leaders are looking for training opportunities for their staff to diversify and expand their business. However, investments in higher education should be expected only if the proposed educational services will satisfy the needs of production for the development of relevant competencies and skills of workers.

[1] https://www.emeraldgrouppublishing.com/heswbl.htm

[2] http://www.net-wbl.eu/

Employers tend to prefer short, intensive courses and small training programmes that are directly related to the needs of their business and easily fit into production schedules. Most of all, training should be relevant to the business, and training providers should be very flexible in the development and implementation of training programmes that take into account the individual needs of the company. Universities of the future will increasingly have to offer 1) initiatives that can meet this demand for short, focused modules, 2) schemes that use a flexible service delivery system, and 3) a creative approach to scheduling. All this entails the development of non-traditional, part-time alternative trajectories in higher education, as well as the emergence of modules that are designed specifically for production (even if any discipline is general) (Helyer, 2015).

Universities in the modern world are considered as those which should have "focusing on the key subjects essential to our economic growth and boosting the general employability skills expected of all graduates." (BIS, 2009b). In order to justify this reputation, they must be ready not only to continue to create and launch innovative courses and programmes to meet demand, but also to offer solutions and take advice on what they should do in order to continue to develop and remain in demand due to the workforce must be adaptive, flexible, and dynamic, and this requires multidisciplinary training programmes along with collaboration between different industrial sectors (Helyer & Lee, 2011). In order to produce flexible, adaptive and dynamic graduates, the university itself must turn into a flexible production system, configured to graduate students with individual training specifically for the workplace or career growth prospect. Pedagogical approaches and teaching methods are as important as the content of the educational programme and curriculum. Note that, as a consequence of this requirement, it becomes necessary to create such forms and sizes of courses that are suitable for advanced training of teachers and tutors so that they are aware of all the new products and inventions of the industry (Boud & Costley, 2007; Stephenson et al., 2006).

Recently, around the world, many program documents on "on-demand" training have been written. At the same time, universities, as centers of intellectual development, should strategically respond to this demand of employers, "recognising the longer-term picture that extends beyond the requirements of any individual employer, as well as the ability of higher-level development to create new capacity and opportunities through increasing the intellectual capital and overall capability of organisations, professions and industries." (Lester & Costley, 2010: 12). The results of studies by Helyer & Lee (2011) demonstrate that employers would like to see their contribution to education, in its individual disciplines designed by educational providers. Only if companies can influence the content of education, universities will increase the likelihood that these companies will send their employees to train. This seems reasonable, especially when employers often offer significant financial investments in the development of their employees. However, universities must exercise some caution, since the response to too "greedy" perceived demand may in some cases be "reflexive," and university revenues will be planned without any long-term prospects.

Creation of new courses is very expensive in terms of resources spent and man-hours of university staff, so it should be cost-effective. Such a formulation of the question is possible due to the development of flexible structures and frameworks that can be quickly filled with various contents to meet different needs, which in turn is especially valuable for students of programmes who want to simultaneously study and continue to work.

The basic driver for the emergence of a new type of training programmes, which allows combining learning with work, should be recognized as an awareness of the increased discrepancy between employers' requirements for their employees due to the complexity of production processes. To illustrate, we present the research data (CBI, 2010; CBI & UUK, 2009) of the professional competencies of employees demanded by employers in the UK, which showed that there was "some dissatisfaction (35%) in terms of graduates' awareness of business and customer issues and also in relation to the level of self-management skills, which graduates possess (20%)"; only 30% are satisfied with literacy and communication skills. In addition to the universal skills required by employers for young employees to become good workers they also lack key general skills. The Work Foundation (The Work Foundation, 2010: 33) suggests that one of the reasons for the increasing demand for universal skills is the destruction of the boundaries of industrial sectors, associated with the huge increase in the intellectual capital of the knowledge economy. The new economy is challenging the existing boundaries of production, divided into industrial sectors, the concept of a sector of the economy is not important (for example, for a low-carbon economy), or there is a reduction in borders (for example, in the creative industry or the union of production and service enterprises).

In the aforementioned cited CBI study (CBI & UUK, 2009: 10), most employers (82%) suggested that higher education should focus on developing employment skills for current students, rather than increasing the number of graduates to replace quality with quantity. Another study (CBI, 2010) also showed that 70% of employers suggest that graduates' ability to find work be given the highest priority. This report also provides employers' comments for a broad discussion of their understanding of transferable employability skills. They expect presentation skills, the ability to think strategically and analytically, to work independently and creatively from a graduate and university student.

This is quite figuratively confirmed in the work (Helyer & Lee, 2011): "employers expect graduates to be 'oven-ready". With a more complete disclosure of this jargon, it turned out that it means requirements for sanity, autonomy, awareness of one's actions, ability to learn and good knowledge in the professional field. Many companies pointed to these desired skills, believing that they would help a person become an important addition to their workforce. Knowledge of the professional field was also often cited as a basic necessity. It was emphasized that, in particular, when hiring a graduate, the employer would like to see in him a noticeable added value for the company, and beyond his subject area and specialization.

As mentioned earlier, employers pay significant attention to general and universal life skills, for example, such as "have alternative thinking, have good analytical skills, and be an effective communicator." In recent years, there has been a gradual change in emphasis for many higher education institutions, when more often it requires skills oriented to the workplace (perhaps even general) rather than acquiring accurate knowledge of a subject, and moreover, such requirements arise already for specific sectors of the economy (Andrews & Higson, 2008; James, 2002). The question: "Where are you going to get these skills?" The answer to this question, combined with the need to develop skills for future, not yet existing, jobs, pose significant difficulties for higher education institutions.

Recently, employee development systems are also undergoing significant changes. Naturally, specific technical, professional and managerial abilities remain important, but at the same time,

the development of specialized workplace skills and the spread of specific knowledge are constantly reducing their life expectancy, but the set of these abilities that are necessary for high-level workers continues to change and expand. From a socio-economic point of view, it is not enough and inefficient to focus on professional development in a purely instrumental style, when more and more people realize the need to be able to identify and develop those abilities that will be in demand for their current and future posts.

The most important driver for the development of education are the people themselves who are looking for new, contextual forms and methods of instruction. Numerous facts of the appearance at the enterprises of a significant number of workers who are ready, after training, to independently and responsibly make decisions regarding the development of the production process, indicate that the training & learning formats combined with work contribute to increasing of the intellectual capital of companies, developing key competencies of specialists, and increasing their competitiveness.

On the other hand, any person in the process of his work somehow acquire knowledge and skills. Most of the acquired knowledge and skills in the workplace are not formally recognized by the university, although most of them have the potential to go through formal recognition, since this knowledge and skills often have a high level of complexity, originality and innovativeness. This situation is due to the fact that modern production is constantly becoming more complicated, the level of requirements is increasing, quality is improving, and products and services are individualized. As a result of the intellectual lag of education from production at universities, in many cases it becomes possible to connect research methods and new theories when organizing WBL.

Often students of WBL programmes have some prior training, based on their own experience, they have already acquired some knowledge and skills from the actual execution of work. In order to take this knowledge and skills into account, European universities have developed a special process for recognition of prior studies. To recognize and accumulate these knowledge and skills in the form of academic credits, students retrospectively undergo a process of recognition of previous studies, which already took place earlier and without the participation of the university. The value for the enterprise of a university graduate who has mastered the WBL programme lies in the fact that he does not need to be integrated into production processes, and in the fact that he has learned to independently replenish his knowledge in accordance with life-long learning trends.

The benefits and advantages of workers who have mastered the WBL programme, and who, as a rule, become catalysts for the growth of companies, are many times greater than any of the most prominent graduates of traditional university programmes.

UK and EU practice of WBL

It can be argued that the concept of WBL in higher education was born and has been developed since the beginning of the 20th century, mainly at universities in the UK (Slowey, 2000). The most rapid growth of this type of education was observed in English-speaking countries over the past 25 years due to the emergence of a new industrial structure and a service knowledge economy. European experience using the WBL concept, unlike the UK, is more focused on vocational education and training (European Commission, 2013).

The UK public policy supports and encourages the acquisition of higher education (level 4 and above of the national qualification framework) and the further acquisition of vocational skills in the workplace. The value of such skills is declared by various government acts (Building Britain's future, 2009). The content of these documents aims at higher and vocational education to train personnel capable of carrying out production activities not only at existing jobs, but also at those that will appear in the future, in accordance with the development strategies of enterprises. Long-standing and completely new industries in such areas as reducing carbon concentration in the atmosphere, manufacturing laboratory equipment for pharmaceuticals and medicine, microbiological technologies, digital communications, etc., declare their needs for personnel with a qualitatively different, higher level of training.

The emergence of WBL in UK higher education has been based on various initiatives funded by the Department of Employment since the early 1990s (Brennan and Little, 1996). Thanks to the support of the Department of Employment, the participation of universities in WBL has significantly increased, since the prospects for increasing the employment opportunities for graduates and the increase in the number of qualified personnel with higher education have clearly opened up (Mumford and Roodhouse, 2010).

The UK government documents emphasize the need for continuous development of labour resources through radically new forms and types of training. We are talking primarily about the fields of science and technology. However, the government also takes into account those areas of education that contribute to the formation of citizens as progressively minded, creative, entrepreneurial, socially oriented individuals.

The medium-term European forecast (CEDEFOP, 2018) until 2030, which even today, after leaving the European Union, continues to be guided by Great Britain, reflects the above aspects in the context of pan-European development. The European Union's "New Skills for New Jobs" initiative (European Commission, 2016) focuses on the future needs of the labour market and the need for stable professional growth for workers, which is ensured by job-related training. The European educational community responded to this declaration by trying to withdraw higher education from university audiences, making it more problem-oriented and practical, associated with any real production process (Nixon et al., 2006). Enterprises initiated the creation of corporate universities, began to actively develop various training programmes at the workplace. Classical British universities, in turn, undertook large-scale development and implementation of full-fledged higher education programmes in the format of Work-based Learning.

WBL in Latvia

In Latvia study programmes in HEIs are also starting using WBL. In vocational education, of course it is more common and some of good practices are perfect examples. One of the fields successfully implementing WBL in Latvia is maritime sphere. Students acquiring maritime professions, such as Engine Department Engineers and Navigators are offered a possibility to enrol to a WBL program, where most of the time it is possible to study and do the tasks while being on a vessel. This approach showed good results and proved its importance – students are acquiring the real and necessary knowledge while being on the vessel and thus increase their competence and skills. And at the same time they also get valuable work experience and earn money. All the graduates of

these programmes are successful seafarers. In universities dual programmes are implemented, for example – Mechatronics in Liepaja University. Students of this programme work and study and the majority of the courses are integrated with the place of work. This is very helpful for both students and employers, because thus students' competences and skills develop faster and they feel more confident at their work places. As it follows form Latvian experience, for many stakeholders to be able to agree on the future development of WBL, an interest and opinion agreement mechanism should be developed, as well as greater support for policy development directly from the political level (ministers) is required, not leaving the policy in the hands of public officials (Proceedings, 2017).

WBL in Austria

Dual studies are not very widespread in Austria but are perceived as an attractive form of higher education at the educational policy level (Ute, 2018). It is offered at four technical colleges in engineering courses or IT courses. The "Smart Engineering" course is offered by the St. Pölten University of Applied Sciences and takes six or seven semesters, depending on the course concept chosen. It is open to both graduates of technical colleges (HTL) and those of higher schools (general education secondary schools (AHS) and vocational secondary schools (BHS)). However, approx. 90 percent of the participants in this educational programme have prior technical training (e.g. HTL, teaching etc.), only approx. 10 percent have attended the AHS or BHS. After passing all exams, the graduates are awarded the Bachelor of Science degree.

Before the first students come to the company for the practical phase, the original letter of intent is converted into a cooperation agreement so that the relationship between the three parties (university, company, student) is firmly regulated. Local politics also had a say in the development. Their representatives were convinced of the idea and the responsible ministry was also brought on board. Everyone involved recognized the potential of the degree programme to strengthen the local economy and to counter the migration of young, potential workers to the country's major cities. The demand seems to meet the expectations of all participants: Already in the first year there were more applications than available study places. The application process for the course is similar to an employment relationship. Applicants are invited to take an aptitude test, followed by an interview. The programme is designed as a weekend course. This means that students can work in their companies on weekdays and take the study courses on weekends. Students can individually determine whether and how many weekly hours they spend in the company with the company's contacts (Schneider, 2018).

In Austria, (also in Denmark, Germany and the United Kingdom), on-the-job learning often includes a formal apprenticeship contract that provides young people with a programme for structured learning in the workplace and structured learning in the workplace, both technically and professionally.

WBL in Lithuania

In Lithuania, the work-based learning method is more understood in the context of vocational education. In higher education institutions (universities and colleges), we treat work-based learning as the assessment and recognition of non-formal and informal learning achievements (Tolutienė et al., 2016). In Lithuania, the need for assessment and recognition of learning outcomes acquired in different learning environments (formal, non-formal and informal) has been

recognized for more than a decade, but depending on the national model of assessment and recognition, there are various practices, instruments and procedures that require significant formal education institutions and make market efforts. The legal framework and the logic of assessment and recognition of learning achievements in Lithuania are based on two main principles[3]: 1) knowledge is acquired in various environments; 2) the university or other formal educational institution recognizes the knowledge acquired in other environments, formalizes it and awards the diploma. Therefore, the mission of higher education becomes the formalization of learning achievements acquired in different environments, taking into account the set of standards. The higher education institution assesses the competencies acquired in various environments: working, raising qualifications, participating in various organizations and groups, performing voluntary activities, working for community benefit, studying in institutions providing non-formal adult education or independently, studying in leisure time.

Assessment and recognition of learning outcomes are an integral part of the national qualifications system[4] and therefore assessment and recognition models, tools, methods, even terminology depend on the specifics of the qualifications system. The assessment and recognition of learning achievements acquired in different learning environments separates studies from the certification of experience. This recognizes that the competencies required for professional activities can be acquired in more than just a formal learning environment.

Lithuanian higher education institutions actively participated in the EU-funded project DEVELOPMENT AND IMPLEMENTATION OF THE SYSTEM OF EVALUATION AND RECOGNITION OF NON-FORMALLY ACQUIRED COMPETENCIES IN HIGHER EDUCATION INSTITUTIONS under the 2007-2013 Human Resources Development Operational Program, Priority 2 “Lifelong Learning”, VP1-2.1-ŠMM-04-K measure “Increasing the efficiency of the study system”. The aim of this project was to develop a methodology for the assessment of non-formal and informal learning in Lithuanian higher education institutions. The implementation of the project contributed to the implementation of the concept of lifelong learning and the accessibility of higher education and the compatibility of the needs of higher education and the labour market. The promotion of non-formal and informal learning and the certification of the assessment of the results of this process at the national level provide study credits that are credited both in the study process and in the assessment of the relevant professional qualifications. This contributes to the accessibility of Lithuanian higher education and strengthens the links between practice and theory.

Klaipeda University participated in the above-mentioned project and successfully implements the assessment and recognition of non-formal and informal learning achievements. The formalization of this process is based on the legal documents of the Republic of Lithuania and the Resolution of

[3] Neformaliojo ir savaiminio mokymosi pasiekimų vertinimo ir pripažinimo nuostatai /Regulations for the assessment and recognition of non-formal and informal learning achievements/, KU Senate 2011-06-06, No. 11 –52)

[4] DĖL ŠVIETIMO IR MOKSLO MINISTRO 2008 M. SAUSIO 11 D. ĮSAKYMO NR. ISAK-72 „DĖL ANKSTESNIO MOKYMOSI PASIEKIMŲ UŽSKAITYMO TVARKOS APRAŠO PATVIRTINIMO“ PAKEITIMO, 2018 m. liepos 9 d. Nr. V-643 /On Order of the Minister of Education and Science of 11 January 2008 No. Amendment of ISAK-72 "On Approval of Previous Description of Learning Achievement Procedure "Amendment of "Previous Approval of The Description of The Procedure for Letter of Learning Achievements", 2018.07.09 Nr. V-643

the KU Senate, entrusting coordination to the KU Centre for Continuing Studies. Currently, 15 programmes (in all KU faculties) have developed methodologies for the assessment and recognition of non-formal and informal learning achievements, which we are ready to share with our project partners as their experience in both the social and technological sciences. Vilnius University presents in their study process Lifelong Learning programmes that are more formalized than Klaipeda University.

We would like to point out that the process of non-formal and informal learning is important in the context of andragogy (adult teacher education). KU also has extensive experience in this field: BAc and Mg andragogy programmes are implemented.

The implementation of the assessment and recognition of non-formally acquired competencies in Lithuania aims to ensure that all stakeholders are involved in this process: higher education teachers, employers, trade unions, employment services, youth organizations, training centres, public organizations, i.e. institutions, for which the quality of work of specialists is important in the context of acquisition and improvement of professional competence.

Work-based Learning

Often, vocational training carried out during work and the work itself are considered separately from each other, as if they were autonomous, non-interconnected types of human activity. It is quite common that the learning process takes place outside the place where people work, and until the training is completed, it is hardly possible to occupy a position corresponding to the qualifications received. However, while working, many people continue to study independently, often thereby contributing to the development of production by increasing productivity and the quality of products or services and introducing innovations. As mentioned earlier, in most cases, such informal and non-formal learning is difficult to recognize officially (Helyer, 2015).

The very concept of “Work-based Learning,” means that learning is combined with work or learning takes at workplace. As was mentioned above, the British government encouraged universities to participate in the training of highly qualified personnel in order to increase UK competitiveness in the global market (Costley and Dikerdem, 2012) in the early 1990s. Accordingly, the term WBL began to be used in British and then in European higher education to describe learning that results from real activities in the workplace, i.e. there is what people and/or teams of people learn from solving production problems and discussing them. Such learning is gradually gaining widespread acceptance in higher education as a new convenient and promising form of education that promotes personal and professional development (Helyer, 2015).

Some definitions of «Work-based Learning»

With the understanding of the term “Work-based Learning”, there is a certain confusion, since dual education is close to this type of learning, there are variations for higher and vocational education, there are various national and political contexts. If you look at the literal translation of this term into Russian, then it gives approximately "learning combined with work"

To clarify the situation, let us turn to a common understanding of this term, proposed by UNESCO[5], namely, "Work-based Learning refers to all forms of learning that takes place in a real work environment. It provides individuals with the skills needed to successfully obtain and keep jobs and progress in their professional development. Apprenticeships, internships, traineeships and on-the-job training are the most common types of work-based learning. These types usually – but not always – combine elements of learning in the workplace with classroom-based learning. Apprenticeships provide occupational skills and typically lead to a recognised qualification. They combine learning in the workplace with school-based learning in a structured way. In most cases, apprenticeships last several years. Most often the apprentice is considered an employee and has a work contract and a salary. Traineeships and internships are workplace training periods that complement formal or non-formal education and training programmes. They may last from a few days or weeks to months. They may or may not include a work contract and payment. On-the-job training is training which takes place in the normal work environment. It is the most common type of work-based learning throughout an individual's working life."

There is also the widely used term 'work integrated learning', which "has and is becoming widely used in countries such as Australia to emphasise the importance of students having experiences within practice settings and in engaging in their selected occupational practice." (Cooper et al., 2010)

As can be seen from the above quotes, from the point of view of UNESCO, WBL is an umbrella term for describing a large number of variations of learning at work and through work.

Dual Education and Work-based Learning

It is remarkably interesting to consider the relationship between dual education and work-based learning. Dual education is a form of organization of training in the workplace. Let us turn to the comparisons of dual education and Work-based Learning in Germany and the USA, conducted by Lukas Graf (2017), who found that in Germany and the USA in recent years, modern forms of higher education based on work have become firmly established. In Germany, this applies more to dual education programmes, to those hybrid educational organizations that combine the institutional elements of both higher education and vocational education, for example, in relation to study programmes, teaching staff and financing. Vocational education is also expanding in the USA, for example, in the form of apprenticeship programmes provided by community colleges, as well as joint programmes offered by universities. Employers and higher education institutions of the two countries are increasingly collaborating in the formation of advanced work-based skills.

Lukas Graf (2017) also conducted a study of work-based academic education in Austria, Germany, and Switzerland. From his point of view, in Austria, the VET system is more represented than higher education, demonstrating a "dualistic structure" since it relies both on new dual education and on vocational schools for full-time students. Germany has been demonstrating progress in the development of dual education programmes by transferring the principle of dual apprenticeship education to higher education since the late 1960s. In turn, Switzerland is developing a systemic

[5] https://unesdoc.unesco.org/ark:/48223/pf0000260677

hybrid configuration of dual apprenticeship, professional undergraduate, and applied science universities.

In order to separate these terms within the framework of the project concept, the following ratio of terms is proposed. Dual education as a learning system combines various forms of apprenticeship in production and at the same time study at the university. In Russia, dual education is represented by various areas of professional undergraduate education and the corresponding FGOS. Work-based Learning will be considered as the educational strategy of the university, providing students with the opportunity to study and work simultaneously not in the form of apprenticeships, internships, (or other imitations of work) - a semi-skilled worker, but to be a full-fledged employee of the enterprise.

Understanding of "Work-based Learning" adopted in the project

Here is the definition of Work-based Learning that is closest to the project concept as formulated by P. Gibbs and J. Garnett (2007): "work-based learning to be a learning process that focuses higher-education-level critical thinking upon work (paid or unpaid) in order to facilitate the recognition, acquisition and application of individual and collective knowledge, skills and abilities to achieve specific outcomes of significance to the learner, their work and the higher education institution".

Here is the same definition proposed by the European Training Foundation (ETF) in the Work-based Learning Handbook (Sweet, 2014), for vocational education and training, to show that this concept is universal enough for use in continuing education: "Work-based learning refers to learning that occurs when people do real work. This work can be paid or unpaid, but it must be real work that leads to the production of real goods and services".

Work-based learning studies, such as those of Gear, McIntosh, and Squires (1994), Eraut et al. (2000, 2005), Felstead et al. (2005) and Eraut and Hirsch (2007), show that that the most effective and valuable learning for working people is what happens through work, or is offered in response to specific questions that arise in the workplace. This is a significant difference from formal training or the use of off-job programmes. It was in response to this that there was a tendency in some universities to move to the "territory" of workplace learning (Scott et al. 2004).

Individually, at least in professional, para-professional, and managerial positions, people tend to take more responsibility both in their workplaces and for career growth, which leads to a common need for self-management skills and independent choice of their development direction. The intentions of workers as practitioners regarding their personal obligations at work and an idea of their role and career are generally broader than what is provided by one employer. At the same time, the opinion of practitioners that a strictly defined set of knowledge and skills should be taught on technical or business problems is becoming more and more old-fashioned.

All this suggests that the higher education sector has a significant role in the learning process, combined with work, and the development of labour resources. For higher education, it is necessary to determine how to participate in work-related learning, so that universities are simultaneously directly related to practice, and at the same time generate a new type of training at a high level, which enables people to develop as self-governing practices and self-governing students. Against this background, there is an increase in the involvement of universities in the

creation of an educational environment in the workplace. As a result, informal education, which is gaining popularity, has recently gained a lot of supporters in the world who are in favour of combining university education and improving knowledge in the workplace. There are more and more people who are convinced that the most valuable skills, knowledge and experience they need can be obtained not in the classroom, but directly in the workplace (Cooper et al., 2010).

In the United Kingdom, as well as in the European Union, WBL programmes sometimes extend to lower levels of skill than levels related to higher education. This is entirely possible, since WBL can be interpreted in the narrow sense as training in the workplace and carried out at low levels of qualification (European Commission, 2013). The format of WBL in higher education up to the highest 8th level, according to the European qualification framework can vary and be either one component of a course, or a single course for obtaining a full qualification. WBL can serve as an effective means of combining work and learning, or as a way of ensuring employment, and in some cases can be used as a means of simplifying and facilitating individual continuous professional development (Garnett, 2001).

Now WBL as a concept is used to develop a class of university programmes from the 1st to the 3rd cycle of higher education, the implementation of which combines the resources of universities and enterprises in order to create new educational opportunities in the workplace (Boud et al., 2001). These programmes meet the needs of students, contribute to the long-term development of both the university and friendly enterprises, and have all the formal characteristics of programmes that correspond to the accredited field of study.

Work-based learning occurs through the development of qualifications not through a description of its specifics, not through monitoring the work process, but directly in the process of production activity (Helyer, 2010). Learning under the WBL programme in all areas of life is carried out in the course of fulfilling real work duties. Moreover, they can mean not only full-time work in a company – it can be part-time, individual entrepreneurship, or even volunteering. WBL programmes can offer a wide range of educational elements, ranging from traditional academic courses to exotic internships and projects in foreign countries. These elements can be varied and combined. At the exit from the educational process, constantly improving various methods of measuring the student's competencies are used. Methods for assessing the results of WBL are significantly different from those adopted in traditional disciplinary laerning, since the effects of strictly unregulated activities are revealed up to the recognition of the achievements of informal and non-formal learning.

The foundation of an effective WBL is the social institution of interaction between universities and enterprises. It is important to understand that without the interest of all parties involved in WBL, without the support of the administration of economic sector organizations and universities, the implementation and recognition of this type of laerning is impossible (Boud et al., 2001).

The development of the theory and practice of WBL as a single flexible learning and production system based on transdisciplinarity has become the prerequisite for creating a new educational paradigm in the EU and the UK that is attractive to applicants around the world. Currently, WBL as a basic version of transdisciplinary professional learning has gained recognition not only in the EU and the UK, but also in the USA, Australia and Canada. The next stage in the development of WBL is its internationalization (Helyer et al., 2011).

Benefits of WBL Programmes

- Confirmation of knowledge and skills acquired at work;
- Minimization of training time through recognition of prior learning and its certification; integration of the content of past and upcoming continuing education courses, as well as the implementation of projects in the workplace;
- Focus on solving real problems;
- Networking learning opportunities with the necessary resources of other universities and external educational platforms;
- Flexible individual learning paths with the subsequent assignment of degrees corresponding to the achieved level and obtaining diplomas (Helyer, 2010).

The role of tutors and teachers

Even though WBL students are more mature and experienced people than regular full-time students, they need the support of their university, tutors, colleagues and employers. Learning, which is carried out outside the formal rules and outside the audience, is encouraged, but it requires special approaches to formalizing its results to recognize their success. In order to support this intellectual evolution, universities need to think creatively and care about who they rely on to improve the educational process, facilitate access to it, while ensuring that they attract tutors and teachers who bring a wide and rich experience in their curricula and real life experience. The tutor is responsible for the facilitation process. “The role of the tutor often moves, on the one hand, from being a teacher to being both a facilitator and an expert resource, and, on the other, from supervisor to advisor or ‘academic consultant”. (Lester & Costley, 2010: 6). Teaching the WBL programme with traditional methods is almost impossible because there is no specific content-based curriculum. Instead, one must support student self-development initiatives and rely on what they have already mastered. The duties of a tutor include negotiating with a student; assessment and recognition of the results of prior learning with the help of special tools; compilation of an educational agreement; designing the learning pathway and professional development together with the student.

In fact, the elements of the WBL programme are a kind of contractual obligation between a higher educational institution, a student and an enterprise, and the link is a tutor providing the negotiation process. Naturally, a student who takes an autonomous position, in turn, is required to already possess some self-management skills. The student's autonomous position at WBL is much more significant compared to traditional learning, tightly time-limited, limited to specific modules and clearly divided by semesters. Obviously, WBL requires other pedagogical methods and approaches based solely on subject-subject interaction.

Universities should also invite experts for lectures and workshops, organize work placement and opportunities for gaining experience in partner companies through research and other projects. Employers usually return this handsomely and send the most qualified employees to universities. This combination of university-based practitioners and university professors has proven its synergistic advantage in developing general and professional skills in specific sectors of education.

Typical feedback from students shows that those with work-based learning experience receive more than one offer from employers during future employment (Helyer 2011).

This means that the inclusion of skills for readiness to work should be more clearly reflected in the university experience of teaching students who really can "…embrace the knowledge, imagination, and analytical ability to adapt and to learn new things over and over again in the years to come. " (Crossik, 2010). Students must complete their studies, willing and able to continue their studies throughout their lives. This kind of enthusiasm for continuous professional and personal development is launched throughout their higher education. It is not important whether it was at the university, at their workplace, in electronic form or in any of their hybrid combinations: "We must increase the ambition and aspiration of individuals to gain new skills – not just once, but throughout their working lives. We must transform the way that employers invest in their workforce and use the skills of their employees. And we must achieve this radical change in a way that delivers much higher performance at lower cost." (UKCES, 2010).

The role of tutors is especially great at the very beginning of the educational process, when they oversee the formation of an individual WBL Curriculum, usually structured through a learning contract or agreement. According to Anderson, Boud, and Sampson (1998), this "is a formal written agreement between a learner and a supervisor which details what is to be learnt, the resources and strategies available to assist in learning it, what will be produced as evidence of the learning having occurred and how that product will be assessed (Knowles, 1975)." The agreement includes a description of the clear learning objectives, the learning process itself, the level and context of the program, as well as an agreement on what the student is doing, what the university supports and what the employer will provide, what types of evidence will be used for assessment. Usually you need to make sure that the Curriculum is consistent and balanced for the student, it indicates the learning objectives and assessment criteria to obtain an appropriate diploma or accumulated credits (Lyons and Bement 2001; Ufi Ltd 2001).

Work-based curricula usually require a more diverse set of methodologies to provide student support and support than traditional curricula or conventional degree programmes (Stephenson, Malloch, and Cairns, 2006; Boud and Costley, 2007). The role of a WBL tutor can be varied and extensive, and the experience of several British and Australian universities using WBL programmes shows that the tutor's actions will typically include (Lester and Costley, 2010):

- helping learners to become active in identifying their needs and aspirations and managing the learning process (Graham, Rhodes, and Shiel, 2006);
- acting as a process consultant (Stephenson, 1998a);
- helping learners develop their abilities of critical reflection and enquiry (Graham, Rhodes, and Shiel, 2006);
- helping learners identify and work with ethical issues (Graham and Rhodes, 2007; Moore, 2007);
- helping learners make effective use of workplace resources (Moore, 2007);
- developing learners' academic skills and helping them use them in the workplace (Rhodes and Shiel, 2007);

- providing specialist expertise (Stephenson, 1998a); and
- inspiring and encouraging learners (Moore 2007).

Note that all of the above characteristics are not specifically related to WBL. However, together they characterize the method of education in the form of a movement from an expert model of higher education (or higher education as a model of product supply) to partnership and a facilitated form of education (Lester 2002; Harvey 2007).

Tutor's emotional intelligence

Compared to ordinary high school teachers, tutors should be more aware of their role in society, they should be better than others to cope with the many demands of a modern, uncertain society (Colomeischi and Colomeischi, 2014). This social pressure often causes emotional problems and risks. A tutor can overcome these problems by developing the professional knowledge and skills, as well as by developing both his/her emotional intelligence and their students. Emotional intelligence is a well-known subject of research but is better known as a useful tool for improving the quality of life and productivity of people at work. Teachers, as professionals who work in the field of human development and are responsible for the development of many generations of children, must demonstrate real emotional qualities that can help them achieve better results. The labour mentality includes attitudes, ideas and values associated with work, being a synthesis of community vision and individual vision (Colomeischi and Colomeischi, 2014). The teachers' labour mentality expresses their attitude to work, the way they see work as an achievement or an obligation. Job satisfaction is an important part of professional life, and this has consequences both at the personal level and at the organizational level. Job satisfaction can be defined as a positive emotion based on the opinion of the employee about his / her work. The effectiveness of self-esteem is especially important for teachers, because it is used in the decision-making process, in the planning of curricula, in the didactic process, in motivating student learning and in an effective communication process (Erdem and Demirel, 2007).

The developed emotional intelligence of the tutor is one of the basic conditions for the successful implementation of WBL programmes that use multiple options for distance and online learning. Learning is the same function of a person's emotional response to the learning environment as it is to the training method or the place where classes are held (Flood, 2003). The success of students studying remotely, especially using the online model, is primarily examined in terms of ease of student learning through computer technology or satisfaction with the curriculum, rather than internal characteristics such as determination, motivation, emotional self-regulation, or perseverance (Gallagher, 2002) . Note that the emotional characteristics associated with the success of distance learning include sustained effort, an internal locus of control, and self-efficacy (Albritton, 2003; Holcomb, King & Brown, 2004; Kemp, 2002; Parker, 2003).

Learning that takes place outside the educational institution can, in the general case, be considered primarily as distance learning. Holmberg (2009) gave a fairly accurate description of open and distance learning as a way of providing learning opportunities, characterized by 1) separation of teacher and student in time or place, or in time and place; 2) training, which is certified by an institution or agency; 3) the use of various media, including print and electronic; 4) two-way communication, which allows students and tutors to interact; 5) the possibility of personal meetings outside the curriculum; 6) a specialized division of labour in the production and

provision of training. Accordingly, the learning process in such an interactive environment involves a close interaction between cognitive and affective processes in the human mind. It is known that in the educational process, stress, anxiety and frustration experienced by the student can seriously impair learning outcomes (Goleman, 1995). Researchers are faced with this issue and are trying to determine appropriate behaviour in an interactive learning environment. So, from the very beginning of the use of computers in learning, there was an affective gap in Intelligent Tutoring Systems, since computers were implicitly designed without awareness of the affective communication channel. However, only recently researchers have realized and shown in measurable parameters that it is the emotional life of a person that affects the quality of achievement of learning outcomes (Marquez, Martin, Brackett, 2006).

Emotional Intelligence is listed as Number One[6] among the Top 10 Communication Skills on Wikijob of the UK.

WBL Students

A typical student of WBL Curriculum is a fairly adult person working, able to attend the campus only occasionally, higher education is often new to him; he needs higher education in order to qualify in order to remain an employee or to advance his career (Helyer, 2015). Students of WBL Curricula in most cases register for these programmes on their own or are required to attend their institution by their employer, sometimes they come from one employer as a group. Most of them both work and study.

Typically, such students are experienced practitioners, sometimes even more qualified in their professional field, than their tutors. Such situations are always a challenge for the university community and a better reminder that production processes are often more advanced and innovative than theoretical studies within the university. The general erudition, in-depth knowledge and extensive professional experience demonstrated by students of WBL programmes confirm the importance for the university of interactions with practical students studying at enterprises. Collegial contacts of students of WBL programmes and students of the usual (full-time) form of study, who do not have sufficient practical experience, without which it is impossible to acquire the skills necessary for the employer, but which could at least partially be replenished thanks to the communication of the students, are also very useful.

WBL students are often removed from campus, working in their companies in many areas of the globe in real time. When entering a university, it is important to make sure and ensure that all students can and are able to use a computer, tablet, smartphone or something like that, have access to the Internet, help them create network interactions. Modern multimedia tools, the use of which is encouraged by many far-sighted teachers, are usually familiar to WBL students who have compiled their portfolios and evidence of previous education upon admission to the WBL programmes. To make sure applicants' statements about previous training, WBL programme tutors help them form their portfolios, and try to do it in the most creative way with images, video files and sound files.

[6] https://www.wikijob.co.uk/content/interview-advice/competencies/communication

A student studying under the WBL programme benefits production and improves himself by developing personal intellectual, critical and analytical skills, which are complemented by practical skills and knowledge. As a rule, people starting to study on the WBL system are older and more experienced than 18-year-old students, from whom they differ not only in age, experience, and aspirations, but also in other characteristics. They have an increased motivation to study because they already well understand why they came to the university; they have a pronounced desire for professional, personal and career growth, for which they are ready to work hard. WBL programmes are attractive to them not only because they take into account already existing knowledge and experience, but also from the point of view of their greater effectiveness and quality due to filling them with deeper and more personally meaningful content, optimizing the time and effort spent. If the student starting the training has a lower level of qualification than is necessary, it is possible to teach him on the basis of an individual trajectory by creating the so-called acceleration programme.

Turning a student into a highly regarded employee requires a complex set of competencies, and they can vary for different types of work. It is already clear that in a rapidly changing employment market, the labour resources of the future must be pre-emptive, adaptive, and multifaceted. It is unlikely that a 21st century employee will occupy one position or perform one type of work during his working life. Labour resources of the 21st century will work longer than previous generations, and under changing circumstances; this need for constant rethinking requires that a person be receptive to new knowledge and have a clear consciousness, general and transferable life skills, sharpened and enhanced rethinking abilities (Helyer, 2007).

WBL programmes work also with ordinary students studying in traditional programmes. Students studying on the more traditional paths of higher education can also take responsibility for finding and adapting a job to learn professional and universal skills as well.

As mentioned earlier, students enrolled in WBL programmes have free access to the campus, where they do not often visit. However, the impossibility of a physical presence in university audiences due to work and other obligations is compensated by the constant support of tutors and systematic interaction with the university through online communications. Social media technology helps cope with distance learning. A high degree of students' interest in the correct choice of methods for solving the tasks and subsequent reflection of the results require communication not only with tutors, but also with other students. Virtual communities in these cases become extremely useful communication platforms for organizing WBL programmes. The active use of innovative information and communication technologies, the resources of educational platforms, learning management systems, and popular social media significantly increases the effectiveness of learning and helps to create a rich learning environment that is not inferior in effectiveness to the environment of the university.

Similarly to higher education programmes from the 1st to the 3rd cycle, WBL programmes usually contain some fundamental elements – modules that are mandatory for all students to master WBL programmes. In some universities, there is a mandatory module for the recognition of prior learning, which acts as a self-audit and allows students to transfer the previous formal, informal and non-formal learning into credits through their recognition according to the relevant university procedures.

To obtain practical skills of students under the WBL programmes, unlike full-time students, they do not need to be sent to production, because they already have a workplace that provides them with the necessary information about the features of production processes. Nevertheless, a mandatory module with the code name “Research of Production Processes” is included in the programme. Students conduct this study on their own and often recognize that they lack the necessary skills. For many, research is generally an unfamiliar process. So, students who do not have higher education tend to associate it exclusively with academic studies at a university. They often believe that this is just a formal task that is not related to their real work. To convince them of the opposite, special pedagogical methods are used to transform the thinking of practitioners into the thinking of practicing researchers in order to develop reflection skills and evaluate changes that occur both in the production process and with the students themselves. Gradually, students become insider researchers, able to determine the potential of their workplace and discover those “traps” that they may fall into on the way to achieving the planned results. In the research, students also learn to formulate new goals and problems that they introduce into the prognostic scenario of their work (Helyer, 2015).

Distinguishing Features of WBL in Higher Education

The development of coordinated WBL programmes with employers and students in higher education is part of the evolution of models related, on the one hand, to the creation and accreditation of in-service training, and on the other, using the workplace as a tool for learning on specific topics and the concept of individual work based on the “curriculum” that arose from the experience of the students themselves, their context of work, and the community of practice (Boud 2001; Nixon et al 2006). This led to the idea of on-the-job training as an interdisciplinary field that is outside the scope of the subject and has its own set of norms and practices (Portwood 2000; Costley and Armsby 2007a). As an axiom, it should be accepted that this kind of training combined with work will “work” if the work environment is able to support the learner and promote reflective learning at an appropriate level. Often, learning opportunities can be created around and sometimes beyond the formal work of students. A certain level of practical support from the employer for students is simply necessary, especially in workplaces where workers have limited freedom of action. For the university to become more involved in learning at the workplace, it is necessary to establish partnerships with employers at a strategic level, where the company considers this type of activity as a contribution to its intellectual and structural capital (Garnett 2001), at a tactical level with specific goals for personnel development (Lyons 2003; Nikolou-Walker 2007), or less formally, where the participation of the employer is provided by the students themselves who take the initiative (Nixon et al 2008.). The growth of this type of relationship seems to reflect the growing interest of companies in using learning experiences when considering their long-term development needs (Burgoyne, Hirsch and Williams, 2004).

Based on the provisions of the works listed in the list of references, we characterize the WBL technology, highlighting its basic characteristics.

Partnership

There should be real cooperation between the university and the enterprise, the purpose of which is to achieve the required quality of education. The partners of the university can be individual entrepreneurs, non-profit, volunteer, municipal and other organizations. By combining various

material and intangible resources of partners, the necessary learning environment is created. If learning takes place directly at the workplace, special conditions must be provided for it, for example, providing opportunities for the implementation of learning projects, which must necessarily be associated with the development of real production processes. Without the partnership of all interested parties, it is extremely difficult, if not impossible, to organize such an educational process and set the right vector for it.

Conventional traditional courses of disciplines already contain elements of self-reproduction of student activity and are suitable for an independent start to study under the guidance of a teacher a discipline in the classroom. WBL needs a more formalized and thoughtful organization of the educational process, in which the partnership between the university and the enterprise should be debugged so that study does not become an obstacle to the work of the student and the functioning of the enterprise as a whole. Partnership in WBL programmes is based on formal agreements between the university and the enterprise in various forms. It can be contractual agreements, memoranda, or other types of agreements, which indicate the duties and powers of each of the parties. As a rule, the contracts indicate how many employees (students) can be involved in the educational process, what is the period of study, what support should be provided to students at the enterprise, how does the WBL programme relate to the general policy of the development of human resources of the enterprise.

Work and learning are carried out jointly

Students are either employees of the enterprise or are attracted from outside to work specially for learning in a real production environment. Naturally, students have the opportunity to independently choose study programmes, but it is limited by the priorities and objectives of the enterprise, so the curriculum and plan must be approved by both the university and the enterprise, as a result of negotiations between which various learning pathways are built. It is taken into account that students have different needs, sometimes changing over time, and the interests of each individual student, as a rule, cannot be satisfied by any standard set of disciplines, and therefore the curriculum is formed individually. Thus, the agreement reached on the plan for the implementation of training and its results should be provided with resources and support from all subjects of the educational process. Preliminary negotiations on the content of the curriculum and curriculum to be mastered between all interested parties are extremely useful for achieving the overall stated learning goals and gaining a clear idea of which results can be achieved and which cannot be achieved. Otherwise, when there is already a certain pre-established curriculum, within the framework of which you have to “drive” one of the training participants, a high probability of dissatisfaction with the learning outcomes of one of the parties or all of its subjects in the aggregate is laid in advance. Dissatisfaction can arise even if at the very beginning of the learning one of the parties, with the help of effective advertising, was able to convince of the feasibility of a ready, but not in detail agreed plan.

Curriculum meets the needs of the student and the organization where he/she works

When building a curriculum, one should proceed from the needs of the development of the workplace and the student himself. This is a fundamentally different approach to learning than the

one that is traditionally used in educational institutions. In fact, the student's production activity is transformed into a professional study programme in which the requirements for the quality of learning outcomes coincide with the requirements for the quality of the production process. This approach is especially attractive for working people who want to continue their professional education, but who do not fit well into the disciplinary approach with its strictly defined boundaries and traditions. The reason for this is the discrepancy between the forms of knowledge acquired in production and at the university, as well as the significant difference in acquired knowledge and skills. In production, new knowledge is constantly generated that has not yet "reached" university audiences, and it is exceedingly difficult to predict when they will become part of any academic discipline. However, it is such knowledge that allows you to quickly optimize the activities of the employee and the enterprise. Education in the WBL system should always contribute to solving problems aimed at the development of a specific organization.

When discussing WBL Curricula, very often the question arises of what should be understood as "workplace manufacturing processes". The concept of WBL recommends interpreting the term "workplace" not in the usual narrow sense, but assumes a rather abstract interpretation: a workplace can be any activity of an employee of a certain organization connecting it to any production processes carried out in that organization.

Lester and Costley (2010) acknowledge that when planning student's future: "From a socio-economic perspective it is inadequate and inefficient to focus on upskilling at a purely instrumental level"; in fact, people have an increasing need "…to be able to determine and develop the kinds of abilities they will require for their current and future roles». This statement by British experts, who are at the origins of the emergence and development of the WBL Institute in the UK, clearly shows a focus on the needs of the student, taking responsibility for their own continuing education and development. It is also emphasized that it is impossible to realize the educational needs of a student directly at the workplace without cooperation with universities, whose tasks, in particular, are to formalize the knowledge and skills acquired in the workplace and identify the characteristics of the employee that will be required for his future activities. The university is responsible for ensuring that the formed skills, abilities, and expert criteria for their assessment are clearly formulated, and in some special cases accompanied by a validation process.

Personal learning paths and recognition of prior learning

The training programme starts with a joint study with the students clarifying their initial skills and wishes regarding the training that they would like to receive. These data determine the educational level of the programme. Training begins at some starting point of the intended individual educational path and necessarily takes into account the student's previous learning experience, as well as his educational prospects and degree of motivation. Often, WBL programmes use more stringent procedures for recognition and validation of the prior learning than in courses that use pre-empirical learning assessments. Initial skills are identified in accordance with what the student can do now, and not with what he demonstrated in the past when he acquired these skills. Focusing on initial skills is necessary for drawing up realistic curricula and their effective implementation. This approach allows one to flexibly organize the training process. For example, a student of the second cycle of study may optionally take another

course of the first cycle again; the student of the first cycle can include in the training a course from the third cycle, etc.

Due to their flexibility, WBL programmes are attractive for a large number of students who seek new knowledge and skills in order to improve their work. The attractiveness also lies in the fact that the student can study anywhere: at work, in university classrooms or at home, since training is provided by electronic, mobile and distance technologies. Increasingly, communication between students, teachers, tutors, and other participants in the educational process is carried out online: universities and colleges offering WBL programmes try to maximize the capabilities of these new, constantly developing technologies.

Work-based Learning Project

WBL programmes often include standard courses and various group activities, but for most programmes, projects that are implemented directly at the workplace are a central component of study programmes. They are focused on meeting the needs of a student-employee and organization, improving existing and planned production processes. Routine on-the-job training aimed at developing production skills is completely excluded from WBL programmes. The student independently develops the project and receives advice and support both from colleagues in the organization where he works, and at the university where he studies at that time. Students can apply a variety of educational resources that contribute to their learning. Study modules or training courses of any educational providers can be included in the general curriculum of a WBL programme. However, it cannot be argued that there are no purely academic disciplines in WBL programmes. Anything that contributes to the desired learning outcomes and helps students fulfil the required university requirements can be part of the WBL programme. Thus, the WBL programme is constructed from various coherent combinations of learning activities, but the main element in it remains the project to improve production processes in the workplace. A project can be both the main, larger part of the training, and its minimal element. But the resources of the organization and the individual abilities of the employee must be interconnected, which gives the learning a practice-oriented character. WBL programmes allow managers and mentors of an organization to realize that this form of training is not a self-contained process, but a system of social and professional interaction, the development of which requires their involvement and support.

Learning projects are typically designed to address real or future workplace tasks that students are working on, and they are often a continuation of activities in which students are already participating as employees (Armsby and Costley, 2000; Graham and Smith, 2002). Such activities can be small and very local, for example, forming the basis for one module in the undergraduate programme, or they can be large units that make significant organizational or professional changes and lead to the award of a doctorate. Most WBL projects can be designed as research to turn students into practicing researchers (Costley and Armsby, 2007b), even if this is just an element of practice for students. If the desire to create and learn from this change is at the forefront of learning, then research sometimes fades into the background (Doncaster and Lester, 2002; Boud and Tennant, 2006).

Assessment of Learning Outcomes

The university in accordance with the framework of educational and occupational standards and levels assesses the skills of the applicant identified during the negotiations and the conclusion of the contract for training. A set of requirements, on the basis of the quality of the learning process to be be evaluated, is formed on the basis of various standards and compiled individually for each student. The result of learning, providing for the interests of the organization, consisting in its ongoing development, must be approved by the university so that the student is assigned a formal qualification. If the student under the WBL programme is not guaranteed continuity of work in the organization, the university is obliged to facilitate the search for additional opportunities for further student employment.

For the successful implementation of any WBL programme, it is necessary to design a framework of standards and educational levels that flexibly combines various disciplines or their fragments. Currently, standards of different skill levels can be used within the same curriculum, but, for example, in the UK there are serious discussions on the problem of creating a universal framework for WBL programmes that is valid for all universities. In the meantime, the responsibility for designing the framework lies with the educational institutions themselves, accrediting these programmes.

Unlike traditional courses, the work programmes of WBL disciplines do not have ant unified content and the material required for all students to study. As a rule, a certain frame is set that fastens the elements of an individual educational programme into a single whole. For example, the introductory element “Portfolio and offers”, which serves as a starting point in learning, may be included in the programme; at this stage, the student makes a presentation about his previous education and declares his desires regarding future academic achievements. Other elements and modules of the programme together reflect an individual learning strategy and serve as the basis for the selection of teaching methods. In addition, the programme may include elements describing the final learning outcomes. It is important that the student himself analyses and displays in textual form, graphically and / or in other ways, his own achieved and planned outcomes: in this way he demonstrates various skills formed during the study of standard curricula and / or during bespoken training, as well as training in third parties.

Recognition in the WBL system of prior learning, previous experience and previous qualifications, certified and verified on the basis of special technologies, reduces the amount of time required to obtain a diploma, and also reduces the cost of training, because the student has to master fewer modules. In general, WBL programmes are focused on finding additional opportunities to improve and confirm their professional qualifications (Talbot, 2015, 2019; Linehan, 2008).

In WBL programmes, there is a need to describe the adequacy and validity of methods for assessing WBL results, as well as their consistency with the nature of learning, given that learning is usually problem-oriented, managed by the student himself and belongs to the category of transdisciplinary professional learning. The purpose of the assessment is to obtain evidence of the constant progress of students in the development of knowledge and skills of practical managers of their education, i.e. “Cartographers”, not “Card readers” (Lester, 1999). Students are constantly required to confirm their mastery of logical knowledge and ability to demonstrate professional competence.

As a rule, central to this assessment procedure are students' reasoning and critical reflection on how they develop their abilities as practitioners and as research practitioners, how they form critical judgments about the context of their work (Brodie and Irving ,2007; Costley and Armsby, 2007a). The technical features of this assessment are generally carried out using universal methods and criteria for assessing the level of knowledge and skills (Ufi Ltd, 2001), combined with a demonstration of individual learning outcomes. Sometimes assessment criteria are part of an learning agreement (Costley, 2007) and reflect the types of social, cultural, and contextual knowledge and skills that are used in the workplace (Poikela, 2004).

Credits

“Within the transdisciplinary model of work-based learning the use of credit for prior learning has moved from ‘specific’ credit against an institutionally-owned curriculum to what has been described as ‘focussed’ credit (Garnett 1998), with learning outcomes being accepted if they form part of a coherent overall programme as described in the learning agreement.” (Lester and Costley, 2010). Such a focussed credit is correlated with the results of learning activity, which is a consistent part of the entire training course as described in the learning agreement. Such a decision to use focussed credit is in good agreement with the idea of recording student's previous studies and claims to be a self-developing process that supports self-directed learning skills (Doncaster 2000; Armsby, Costley, and Garnett 2006). This process should provide the starting point and foundation of the WBL programme for the implementation of subsequent processes, such as helping students in critical reflection, assessing past learning about future goals, in self-knowledge and self-esteem, especially when collecting ideas and planning for future learning. In recent practice, the distinction between previous and planned training has become smoothed out by providing a portfolio of work, accompanied by a written characterization of the student, given by the teacher in free form as the basis of the entire course (Chisholm and Davis, 2007). The same applies to the programme, which takes the form of some projects that are designed and built through reflection, theorizing, and, if necessary, further research and study (Lester, 2007).

Quality Assurance

Flexible learning and research programmes, to which WBL students are involved, have built-in quality assurance mechanisms that guarantee the achievement of educational results with the due diligence of students, however, like other university programmes; all university programmes are subject to continuous quality improvement (Helyer, 2015). These processes are not direct, as they include the experience of quality assurance and improvement, borrowed from key stakeholders, including the institution, students, employers, and their production processes. Although we note that continuous quality improvement in WBL programmes is more difficult to initiate than in traditional educational settings, as the number of participants in the educational process and its complexity increase.

Contribution to Organizational Development

The contribution of WBL programmes to the development of an organization usually occurs in three areas. The most immediate of them is the value of the project itself, which is being developed at the workplace, as well as the emergence as a result of its implementation of new

skills and changes that the project brings (Costley and Armsby, 2007b; Nixon et al., 2008). Projects can lead to the emergence of new knowledge added to the intellectual or structural capital of an organization (Garnett 2007), increasing its overall potential. Secondly, the development of students' knowledge and skills can also have an impact on the organization due to their increased professionalism and motivation, especially if it is used by the organization to derive property benefits through the development of personnel and changing their roles in the organization. Finally, WBL programmes can have a wider impact by influencing organizational or technological change, identifying new business areas, gaining external recognition, and enhancing the organization's prestige. These results are most often associated with postgraduate programmes (Zuber-Skerritt, 2006; Costley and Stevenson, 2008), but such results can also be obtained on programmes of the 1st and 2nd study cycle.

The basic value of work-based learning comes, firstly, from a high level of interaction with employers, and, secondly, it depends on the ability of work to contribute to the rapid personal and professional growth of students. Publications (Teare and Neil, 2002; Sung and Ashton, 2005; Brennan and Little, 2006) indicate that this type of training is developing quite successfully, especially where students are already in the company's management or have autonomy, or there is a positive orientation of the organization to benefit from personal development and staff initiatives. WBL programmes have a very positive effect on independent professionals (Stevenson and Saxton, 2005), and there is evidence that small and medium-sized firms are likely to rate WBL better than more formalized education and training, at least for professionals and managers (Burgoyne, Hirsch and Williams, 2004). For leaders and senior managers in larger organizations, there is evidence that the most effective and valuable forms of learning are based on the employees' own experience and not in the classroom (for example, Ashridge Trust/European Academy for Business in Society, 2008). In addition, there is a large amount of unpublished and unconfirmed information that indicates that WBL programmes are very characteristic to act as a catalyst for students to change jobs, because their previous place of work did not contribute much to their development, was out of the context of their aspirations, or employers themselves were too inflexible with only short-term goals and did not see how to capitalize on this (Gustavs and Clegg, 2005).

Theoretical aspects of Work-based Learning

WBL certainly belongs to the category of innovative forms of education. To meet the requirements and expectations of students, especially adults, many of the fundamental assumptions and postulates of traditional education in the WBL system need to be rethought and revised. This applies both to the nature of knowledge and to the methods of teaching and learning. Of course, new approaches to the formation of a learning structure, educational management, pedagogical theories and methods, systems for assessing and confirming acquired knowledge and skills are required. Additionally, institutional, administrative, and cultural changes are needed (Talbot, 2014).

Experiential Learning

On the one hand, the WBL concept contributes to solving the global task of education – involving the population in lifelong learning by providing the opportunity to continue formal university studies in a new format (Field, 2006). On the other hand, the implementation of the WBL by the

university should be seen as an expansion of its social mission by going beyond the boundaries of traditional forms of education (full-time, part-time, additional training, etc.) into the space of social and professional interactions between the student, university and employer in order to maximize the benefits of all stakeholders (Talbot, 2014, 2019; Sheridan, 2019).

Historically, WBL programmes have a basic source – the so-called experiential learning, which means professional learning in the broadest sense, based on real experience in an accredited higher education programme (Helyer, 2010). Experiential learning is sometimes unlawfully criticized: it is mistakenly believed that when fixing its results, credits are attributed to work experience. This is not quite the case: students do not receive credits for passive stay in the workplace. The educational process requires the active inclusion of pedagogical methods in it, since learning is the product of student efforts to interpret their actions and translate what they experience into a certain meaning.

Students must provide evidence of experiential learning, and their real accomplishments are rigorously tested. For this learning to be successfully counted, students must master the skills of reflective analysis. Effective reflection is a common and common practice in WBL programmes. Often, people who begin to master such programmes believe that their knowledge and skills, which once received expert evaluation and were classified as skills sufficient for a certain qualification, should not be doubted. At the initial stage of WBL, the help of tutors is often required to determine what students really know and can do. However, subsequently, students need to learn not only to verbalize the truths they know, but also to build useful connections between disciplines and people on their own in order to correctly attract intellectual resources (Costley and Dikerdem, 2012; Siebert and Costley, 2013).

Transdisciplinary learning

Thanks to the development of WBL programmes in universities, a number of new principles and practices of education have emerged, which can be considered as a special type of transdisciplinary professional education in the form of study programmes combined with work. This type of learning is significantly different from traditional vocational education based on a disciplinary approach. Currently, WBL programmes are an actively developing field of research and theorization. Of great interest is the study of the combination of academic and professional disciplines in study programmes, coupled with real activities aimed at improving production processes. Both practice and theorization of work-related learning should be developed in order for this type of transdisciplinary vocational training to become more mature and reliably integrated into the practice of universities seeking to reduce the intellectual, practical, psychological and other distances between the field of professional training and employers. However, at present, the spread of WBL in many European universities is still constrained by the massive offers of traditional educational programmes and forms of training adapted to the needs of young full-time students. In order to develop WBL and overcome the humiliating claims of employers like "You are not preparing the right ones," you will need to reform the infrastructure of universities and organize the educational process, retrain and update teaching staff.

To date, a number of learning theories have already been developed that provide the basis for alternative forms of learning material (Malloch, Cairns, Evans & O'Connor, 2011; Illeris, 2011)

using a workspace outside universities, however, not many there are practical examples of translating such theories (Lester & Costley, 2010).

Work-based learning is based on a transdisciplinary approach, which fundamentally distinguishes it from the existing disciplinary basis of university education (Boud, 2001). Such programmes should be accompanied by appropriate methodology and practice of organizing individual training programmes, recognizing existing knowledge and skills among students, and understanding how support is provided and the student assessment system works. Over the past 20 years or so, the expansion of the WBL contractual form has led to the development of a separate pedagogical approach called andragogy (a term borrowed from Knowles (1970)).

Work-based learning is not particularly well aligned with the widespread division of university programmes into study and research. Most work-based learning programmes contain elements of both learning and research, although they may be better characterized by the inclusion of proactive knowledge acquisition through purposeful activity (work). To bring research to the forefront, programmes are usually focused on obtaining results through appropriate research projects. According to the typology provided by Griffiths (2004) to describe the combination of learning and research, work-based learning seems to be the most research-based and research-oriented. It is also, to some extent, generally positioned as research learning, when university employees conduct relevant pedagogical research in order to reasonably inform about their achievements in practice.

The development and recognition of work-based learning and other similar practices are based on well-known theoretical foundations. In particular, the concepts of Dewey (1916, 1933, 1938) still influence the WBL, especially in terms of his discussion of experience and reflection on the democratic reconceptualization of vocational education. Lester and Costley (2010): “These themes have been taken up in the context of professional and vocational learning by, among others, Knowles (1970), Kolb (1984), Schön (1983, 1987) and Boud and colleagues (e.g. Boud, Cohen, and Walker 1993), who have been particularly influential in the development of models for adult and professional learning over the last two decades. Along with Schön’s reflective practitioner philosophy, work-based learning draws heavily on the idea of action research (Lewin 1946; Carr and Kemmis 1986), and to an extent variants such as participative enquiry (Reason and Rowan 1981) and soft systems methodology (Checkland 1981); all of these are concerned with changing situations as much as researching them, and they are also essentially collaborative. Another influence that is evident in some work-based programmes is Revans’s action learning model (Revans 1980), where learners develop insights through tackling real-world issues and coming together to discuss them in a ‘set’ or structured forum, although the principles behind action learning are more widely used than the specific practices advocated by Revans.”

The epistemological basis of work-based learning is usually presented in a very pragmatic form, which in a philosophical sense emphasizes the interdependence of knowledge and performance (as it is clearly formulated (Dewey 1938; Sennett 2008), also combined with constructivism and, to some extent, a phenomenological perspective in which the student seen as an autonomous unit that understands its context and role through active participation (Tennant 2004).

This is reflected in Donald Schön's concept of constructionism as a theory of learning, where knowledge and execution coexist in a spiral of activity, where knowledge communicates the movement of a practice that produces further knowledge, which in turn leads to changes in

practice, and so on (Schön, 1987). A similar concept was discussed by Revans (1980) in the form of programmed or disciplinary knowledge, modified through research into the insights of the phenomenon, to produce new, practical knowledge through the study of real workplace problems. Using such a process, a form of meta-learning emerges in which the practitioner can be seen as participating in his post-formal development (Czikszentmihalyi and Rathunde, 1990), and developing towards epistemological maturity (Kitchener and King, 1981).

Work-based learning is also sometimes interpreted in terms of how adequate and effective it is (Lester, 2004), and also promising in drawing on the idea of "ability" developed by Stephenson (1998b), O'Reilly, Cunningham, and Lester (1999). The narrow version of adequacy concerns the achievement of the threshold standards required to carry out specific work. A broader conceptualization, already related to the university level of study combined with work, examines the types and levels of problems that practitioners encounter when the nuances of interactions are resolved in the negotiation process. Lester and Costley (2010): "Particularly but not only at postgraduate level, work-based learning can be concerned with developing adequacy for what Schön (1987) terms the 'swamp' of real-world practice, where practitioners engage with a mix of indeterminate problems, pieces that don't fit and people who don't behave according to the theory. It will also engage with what Ackoff (1974) calls 'messes' and Rittel and Webber (1984) 'wicked problems', with issues of design rather than problem-solving (Simon, 1972), and increasingly with environmental and human issues that call for the application of systemic wisdom (Pór, 1996).

Emotional Intelligence

Learning theories often view intelligence and emotions as polar opposites (O'Regan, 2003, Imel, 2003), despite the fact that "Learning is as much a function of a person's emotional response to a learning environment as it is to the instructional method or classroom"(Flood, 2003). People differ in their emotional reactions to situations. In particular, adult learners need to have emotional comfort in learning (Draves, 2000). Moreover, certain emotional abilities are necessary for learning: people must control negative emotions such as fear, anxiety, and frustration so that positive emotions such as enthusiasm and a sense of accomplishment can prevail (O'Regan, 2003). Turning to emotions in the classroom allows the student and teacher to manage their feelings and provides useful methods for overcoming difficulties that can hinder success (Gates, 2000).

Emotional intelligence springs from the concept of "social intelligence," which was first defined by Edward Thorndike in 1920. E.L. (1920) defined social intelligence as "the ability to understand and manage men and women, boys and girls – to act wisely in human relations." Emotional intelligence was later conceptualized by Salovey and Mayer (1990), however, emotional intelligence became popular outside of academia thanks to D. Goleman (1995, 1998). Emotional intelligence has also become widely used in popular media circles (Matthews et al., 2002). Subsequently, emotional intelligence was adopted by a large business using emotional intelligence as a mantra of leadership.

The lack of emotional correspondence between technology and its users is especially important in the Intelligent Tutoring Systems (ITS): "without recognizing the complex interaction between cognitive and affective processes that are ubiquitous in human activity, educational systems may never reach their full potential" (Zakharov et al., 2008). Cort and Reilly (2002) called for a

restructuring of the pedagogy of Mentoring Intelligent Systems by shifting the focus to researching the work of experienced educators, " who are adept at recognizing the emotional state of learners, and, based upon their observations, take some action to scaffold learning in a positive manner." The semantic component of social interaction, most often in the form of speech, is accompanied by the component of affective interaction, which is considered equal, and sometimes even more important, than the semantic component (Bickmore, 2004). Although people in general are not always aware of exactly how their language, posture, facial expression, and gaze convey their emotions, they underlie their interaction and navigation in the social world (Mishra and Hershey, 2004). Recent studies on the recognition of affects in computer-mediated environments open up new prospects, although very little research is devoted to how to use a computer to determine the emotional state of its user in the context of training (Klein et al., 2002). However, current ITS research is confronted with a wide range of design and technical problems that arise during the development of ITS, taking into account affects and emotional intelligence. In particular, Cort and Reilly (2002) proposed a model of constructive cognitive progress that connects learning and emotions in a developing cycle of affective states.

Conclusion

The best way to create innovative educational programmes today is WBL technology, which considers the needs and interests of both employers and students, and universities. The regular collection and analysis by universities and statistical organizations of operational information from the labour market convinces us that enterprises experience a shortage of highly qualified personnel capable of independently replenishing knowledge and regularly improving their skills. The technology of learning combined with work organically fits into professional strategies for the development of individual industries and the employees employed in them and significantly increases the ability of higher education to provide high-quality, truly sought-after educational services relevant to the needs of the time.

Now, more than ever, enterprises are waiting for an early response from universities. In the current economic environment, it is not enough to “keep up”, enterprises know that they must succeed financially, diversify their products and business processes. To survive, they need new skills, knowledge, experience and ideas, as well as the continuous improvement of existing ones. It follows that higher education institutions must constantly improve their proposals, improve educational programmes and develop scientific research and knowledge transfer mechanisms. Particular attention should be paid to the working environment in which the training takes place, which includes ensuring that the workplace can correspond to the volume of material studied and the development potential of the student in the learning process. WBL programmes do not assume that only certain types of organizational cultures and production processes are suitable for such a program. In fact, both universities and employers are interested not only in the professional development of student workers, but also in their personal growth.

And finally, the practice of implementing and researching learning integrated with work shows that the existing model of students having discrete skills that are subject to development and modernization is catastrophically outdated. Now much more attention needs to be paid to the development of "meta-skills" and opportunities that allow people to become self-guiding practitioners and self-directed students. The understanding that students are employees whose development is supported and mainly depends on the goals of the employer is also obsolete.

Especially (although not only) at the graduate and postgraduate level, many students at WBL programmes are already in positions where independent decisions regarding production processes are required. Some of them are key decision-makers in companies, as well as self-employed professionals. Similarly, the development of labour resources should be critically interpreted to a greater extent, not only to answer the employer on his needs, but also understanding the long-term picture (which extends beyond the requirements of any individual employer) of the constant development of intellectual capital and the new ability of organizations, professions and industries to flourish in knowledge economy.

Based on the foregoing, Appendix 1 contains a description of the 20 basic components of WBL, which are subject to understanding, research, description, development, and implementation (if necessary) within the framework of the project under consideration.

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Annex 1. WBL components

No	WBL components
1	Partnership between students, HEI and employers to improve the quality of education and promote the career growth of students and graduates
2	The combination of work and training in a real work environment
3	Correspondence of a Curriculum to the needs of the student and the organization in which he/she works
4	A student takes responsibility for his/her own lifelong learning and professional development
5	Personal learning path and recognition of prior learning through the validation of informal and non-formal learning
6	Study projects implemented directly at a workplace integrate knowledge from different disciplines and focus on improving the business processes of organization where the student works (the ability to replace part of a discipline, one discipline or several disciplines with a project at the workplace)
7	A specific assessment of the learning outcomes is needed, including those that have been obtained previously, which allows for a recount through validation and to shorten the learning period and make the educational process more flexible and convenient for both the student and the employer
8	Active use of ICT and distance learning technologies
9	Network learning based on active involvement in the educational process of the resources of other universities and external educational platforms
10	Integration of various disciplines and areas of knowledge by transdisciplinary learning
11	The realism of a Curriculum in terms of time, including the possibility of reducing or prolonging education
12	The possibility of a student being on campus depending on his visiting opportunities with the maximum number of consultations and the availability of training with full-time students
13	Assessment of learning outcomes in credits, their accumulation and the possibility of transferring from a study programme to another one
14	Flexible study timetable
15	Support for reflective practices and introspection, innovative pedagogical theories and practice
16	Innovation in training through the active involvement of employers and innovations in production
17	Curriculum development based on the concept of value added to all interested

	parties(real work at the enterprise, relevance of acquired knowledge and skills for professional development and career growth)
18	Active support of the student by the employer
19	The special role of the tutor as the person responsible for supporting the student during the implementation of his/her individual learning path.
20	The need for university teachers to constantly improve their skills in new pedagogical theories and practice, especially using ICT
21	WBL enhances the scientific research to be more economy-based, as well as the topics, spheres, and outcomes of the research to be more applicable.