

# Modern Psychological and Teaching Technologies for Implementing the Educational Process in Higher Educational Institutions of Ukraine

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## Abstract

The relevance of the subject under study lies in the use of the latest educational technologies in higher educational institutions of Ukraine. As a consequence, the study focuses on the concept of teaching technology in the psychological and educational literature and on identifying the most optimal teaching programme for institutions of higher education for the implementation of modern innovative technologies. The above listed objectives determine the purpose of this study — to establish and test a curriculum for the implementation of modern psychological and teaching technologies of the educational process in Ukrainian universities. The leading methods included the organisation of experimental research on the development and modelling of the curriculum using the latest technologies. During the establishing and controlling stages of this study, the cross-sectional method was employed to learn the features and regularities of the mental development of higher education students, using the latest psychological and teaching technology in education. The results of the study consider the present-day requirements and demonstrate the necessity of incorporating such technologies as self-development and distance learning. The programme includes recommendations for the most successful implementation of the educational process, guided by the student's personality. The main idea of this programme is “the students are taught by themselves, not by the teacher”. The significance of the results of this study is valuable for conscious students, teachers inspired by their craft, and Ukrainian universities that strive to fill the labour market with prominent specialists, as opposed to graduates with a “plastic diploma”.

**Keywords:** educational technologies, personality psychology, teaching process, curriculum, innovative technologies, institutions of higher education

## 1. Introduction

Technology is an interdisciplinary concept. This is the first time it has appeared since the development of mechanical engineering. The production process had to be organised to ensure smooth, efficient work. The demand for technologisation has spread to other areas of human life: medicine, politics, service, and education. The term "technology" – is interpreted as a set of knowledge, information about the sequence of individual production operations in the process of producing something; an educational subject that teaches this knowledge, information; a

set of methods for processing or processing materials, manufacturing products, conducting various operations, etc. (Yankovych, 2015; Shkyryta & Lazar, 2019). Separately, teaching science distinguishes such concepts as "educational technology", "teaching technology", "educational technology", "nurturing technology", "social and educational technology", and "management technology". In Psychological Science, psycho technologies contribute to the development of the value-motivational sphere of teachers, full-fledged professional development, overcoming crisis situations, and achieving emotional stability. Forms of technology such as psychoprophylaxis, psychological counselling and psychocorrection are distinguished (Vasilieva, 2015). The reality of modern life is that all spheres of human life are developing rapidly. This is especially true in the educational space. Innovative processes occurring in the field of education require professionalism from a modern teacher: mobility, adaptability, innovation, creativity, ability to self-develop, stress tolerance, effective use of internal resources. Currently, technologies contribute to the development of the individual, the realisation of his right to creativity, initiative and freedom of self-development. The introduction of modern psychological and teaching technologies will accelerate the implementation of the educational process of higher educational institutions in Ukraine and update the education system in general. The fact that the concept of "technology" for education is not new is proved by the teachings of Aristotle, Plato, Plutarch and Socrates. Talked about dialogue in the "teacher-student" dyad, mentoring and the example of historical figures as an illustration of the ideas and rules that should be instilled in the educational process (Mikhailichenko, 2016).

For the US countries of the 1930s, the use of audiovisual technologies for educational programs has become revolutionary (Fishman, 2020 - Dickenson, 2017). Maria Montessori, an outstanding founder of her own school, considered the idea "Help me do it myself" to be a red ribbon permeating the entire system of Education. She believed in the nature of the child, who is able to establish independently free, active. Excluding the authoritarian parenting style on the part of an adult, which only establishes a safe space for the development of the child's cognitive interest. According to UNESCO's definition, using the English terminological equivalent, education is any purposeful and organised activity to meet educational needs (learning needs), which is sometimes called cultivation or training (Shekhovtsova, 2017; Tong, 2021; Wang, 2021). Thus, education involves communication between education applicants and their teacher. Based on the experience of European educational technologies, Ukraine became a member of the Bologna Process 16 years ago. Thus, finding themselves at the centre of globalisation and European integration. The educational community has modernised the fundamental knowledge of classical teaching, mastered ways to introduce innovative technologies. First of all, the reform concerned higher educational institutions. Therefore, it required the teacher to retrain, integrate new knowledge and use it in practice. And, to be honest, not everyone managed this objective. At the current stage, the training of university teachers is defined by great responsibility, because their main objective is the development of highly moral educated individuals – the elite of the nation, who are ready for constant self-improvement, are mobile, quickly oriented in new situations, receptive to changes and innovations (Boychuk, 2018).

Thus, the emergence of the latest technology is always preceded by a public need for scientific discoveries. For example, the development of cybernetics and computer science has given an impulse to software-based learning, while research into the patterns of the psyche has given an impulse to the emergence of problem-based learning. Today, digitalisation is very actively developing and entering the practice of all spheres of human life. The educational space of Ukrainian educational platforms actively uses remote e-learning. In Western practice, e-education has become an integral part of the curriculum. The absolute world leader in this area is South Korea, where due to huge investments, the entire education system (Primary, Secondary, Higher, adult education and education management) is adapting to the Information Society (Mikhailichenko, 2016). Therefore, the objective of this research will be to introduce online training in combination with the principles of self – development, because, in the author's opinion, these are integral components of the present. In addition, the issue of supporting students during distance learning remains unresolved. Again, referring to the figure of the educator, who must have the skills of external motivation to integrate students' awareness of the necessity of learning.

## 2. Method

During the study the following methods were used: theoretical methods (study, analysis, synthesis of scientific literature of Western European, Ukrainian and Russian scientists; synthesised and concretised the gaps in existing research; by analogy method on the example of works of Western scientists developed research plan; theoretically modelled the learning process on the compiled programme and put it into practice experimentally. The experience of e-education, regulatory documents and educational and methodological literature of Western European Higher Educational Institutions were studied empirically. Methods of psychological diagnostics (S.A. Budassi's method of

personality self-assessment research, T.I. Ilyina's method of motivation study and A.A. Rean and V.A. Yakunin's method of learning activity motivation study in students). Methods of mathematical statistics were Spearman correlation analysis to identify indicators of statistical significance of differences and correlation relationships of the studied parameters. The method of observation and conversation was obligatory. The experiment was conducted during the school year.

The experimental base for the study was the Institute of Professional and Technical Education of the Academy of Educational Sciences of Ukraine. The experiment consisted of three stages. At the first stage, students were invited to participate in a mixed-type learning experiment. Using the method of psychodiagnostics the students were offered to complete a general information survey and a response form according to S.A. Budassi's method of personality self-esteem research, T.I. Ilyina's method of motivation study and A.A. Rean and V.A. Yakunin's method of learning activity motivation study in students. Thus, our ascertaining experiment in the learning process began. In the second stage of the developmental experiment, the students were grouped into two subgroups of 100 people each. Groups of students were grouped according to the results of the academic session as "successful" and "unsuccessful". Each of the subgroups had its mentors who conducted training in the course "Teaching in Higher Education". The curriculum provides access to education, focusing on the necessary amount of ECTS credits required for a Master's degree at a higher education level. It contains general and special professional competencies, regulatory and variable terms of learning outcomes, and requirements for quality control of Education. However, in subgroup I, there was no external motivation from mentors; in subgroup II, mentors encouraged students to study according to a pre-modelled scheme. A reminder that the training was blended, i.e. the student and the teacher had the opportunity for face-to-face interaction. As e-learning does not exclude conventional learning, it is complementary, such that it is designed to improve knowledge for the future, competitiveness in the professions and improve qualifications in the course of life. Subject to high-quality educational content and competent course construction.

However, students optionally attended face-to-face consultations with the teacher. Thus, they were able to choose their form of education, relying on their resources. At the third stage of the control experiment, students were interviewed using the cross-sectional method, according to certain criteria, their impressions of the experience that they participated in the experiment. Based on the results of these surveys, the anamnesis of the modern student was compiled and the priority technology for the implementation of the educational process in Ukrainian higher education institutions was determined. The final test in the academic discipline was decisive. Which produced unexpected results for a relatively small number of students. Those who had not previously achieved a high level in the subject had the opportunity to improve their level of achievement. Thus, teachers, as mentors, managed to overcome the complexity of remote learning by identifying the student's personality. Therefore, e-learning, as a system of learning using ICT, should be rationally integrated into modern education, leaving along with the latest and conventional teaching tools (Mikhailichenko, 2016).

### 3. Results and Discussion

The scientific community unanimously considers teaching technologies as a factor in the implementation of an effective educational process, which determines the achievement of predictable learning results. "Technology" in educational practice is the construction of the curriculum according to the scheme that transforms the conventional learning process into results. The search for rational ways of transmitting and absorbing knowledge has concerned scientists since ancient times. Changing the education system is the call of society. Every new generation of education applicants tries to respond to their learning requirements to the best of their ability. Feeling the low efficiency of teaching impact, academics have the constant challenge of developing, detailing the tools of the teaching process, improving and implementing them into practice. In the course of which the comparison of various teaching skills becomes possible due to a systematic approach. Technologies, in this case, will help establish a single educational space. In which teaching – embody the tactics of implementing an innovative approach and psychological-the involvement of interactive techniques in training (Zazimko, 2015; Almashiy, 2019).

The modern education system is leaving an authoritarian style of teaching and moving towards humanistic personal development; the handling of knowledge is becoming more important than its accumulation; lifelong learning is becoming the life credo of today's youth; individual learning is being given more attention than ongoing learning. The personal approach to the student becomes the main one in the implementation of educational work by teachers, psychologists and methodologists of professional disciplines. It is for this reason that the primary purpose of the pilot study was to investigate the personality of the students under study using S.A. Budassi's survey and personality self-assessment techniques. The results of the diagnostics are presented in Table 1.

**Table 1.** Students' Self-Assessment Level for the Master's Level of Higher Education

Level of expression of self-esteem indicators	Percentage of students by self-esteem level
Inappropriately overstated	5%
Appropriately high	46%
Appropriately medium	40%
Appropriately low	8%
Inappropriately low	1%

The level of self-esteem for future teachers who will implement modern psychological and teaching technologies is very essential. According to Table 1, it can be seen that 10 students have a hypertrophied sense of personal dignity, are excellent students, set ambitious purposes for themselves, but lack the capacity for self-reflection. This is an unacceptable trait for a modern educator, scientist. 172 students have an optimal level of assessment of their abilities and shortcomings, thus confidently regulating their actions through self-knowledge. Such a figure of a teacher is the most optimal for the modern young generation. Because the purpose of a teacher is to be a link in the transfer of social experience. Every student has to be aware of themselves as individuals, to be confident in respecting themselves, in their significance and uniqueness and, hence, in the positive assessment of those around them. The teacher provides the student with recognition through identifying their attitude and organising the atmosphere of student life, through establishing situations of student development at a lecture or practice in face-to-face or remote communication. By engaging students in activities, the mentor guides them to learn about the world and themselves in it, providing doses of assistance and a personal approach (Prokopenko, 2018). The 18 students with low self-esteem required the greatest involvement of supervisors, individual approach to exclude the factor of dissatisfaction with the profession. It is unacceptable to be unsatisfied with one's appointment, above all the teaching profession. The subject taught by the teacher becomes a means to stimulate the child's development rather than the final purpose of their professional activity. The conditions and means of teaching and upbringing are changing, but the purpose of a teacher remains unchanged – to teach a person to be part of civil society. If there is a professionally trained teacher, the state has a reliable future. This is a time-tested truth. Currently, a teacher's professional activity is not mainly about delivering information to students but rather about being an organiser of its implementation. The training of higher education students should be oriented towards overcoming the stereotypes of the past in the organisation and management of the educational process and towards the development of a creatively thinking teacher (Prokopenko, 2018).

Table 2 analyses the results of the study on the methodology of studying the motivation of learning in higher education institutions T. I. Ilkonina on three scales.

**Table 2.** Summary of the Three Scales

Quantity Level	Gaining knowledge	%	Mastering the profession	%	Getting a diploma	%
High level	10	14	6	8	6	8
Above average	21	29	8	12	52	72
Average	12	17	19	26	7	10
Low	29	40	39	54	7	10

According to this methodology, 43% of students have a high and above-average motive for obtaining knowledge, 40% have a low one; the motive for mastering the profession, the development of important professional knowledge is present in 17% of students. 54% of students are concerned about their intentions to acquire professional skills. Clearly represent the content of the future profession. The remaining 46% intend to receive a diploma with formal knowledge acquisition. According to the results of A. A. Rean, V. A. Yakunin's method "Studying Motives" of students' learning activity, the following were the most significant, the author distributed from a small number of motives choice to the largest:

- avoid judgment and punishment for poor education – 7%;

- perform teaching requirements – 6%;
- keep up with their fellow students – 14%;
- be continuously ready for the next classes – 9%;
- not to start studying subjects in the academic cycle – 26%;
- to be intellectually performed – 28%;
- permanently receive a scholarship – 29%;
- attain the respect of teachers – 30%;
- successfully study, pass exams for "good" and "excellent" – 35%;
- ensure the success of future professional activities – 43%;
- get approval from your parents and environment – 41%;
- acquire deep and solid knowledge – 48%;
- get a diploma – 51%;
- become a highly qualified specialist – 71%.

Thus, in terms of percentage, the last two criteria became the most chosen motives. Master's students want to become specialists in their field. Almost half of the students (48%) have a willingness to acquire good and strong knowledge, which coincides with the methodology of T. I. Yutkonina. A significant place in the hierarchy of motives is occupied by the social motive: "get approval from parents" and "get respect from teachers". This structure of motives remains relevant for modern students.

The next step in the study in this research is to identify correlations between learning motivation and academic performance (Table 3). Indicators of academic performance parameters do not correspond to the normal distribution ( $p \leq 0.05$ ), thus to establish a correlation between the indicators of academic performance parameters and the motives of educational activity, the author of the research used Spearman's rank correlation method. According to the data, semester grades in the course "Teaching in Higher Education" positively correlate with expectations from others (social motive) and expectations from the future related to the future profession. A negative correlation was identified between semester grades and the willingness not to start studying subjects of the educational cycle and obtaining intellectual satisfaction. Table 3 demonstrates the level of correlation between academic performance and indicators of the parameter "gaining knowledge" and "mastering the profession".

**Table 3.** Indicators of Correlations between the Success of the Course "Teaching in Higher Education" and Indicators of the Parameters of the Methodology of Studying Motivation for Learning in Higher Education by T. I. Ilkonina

r Spearman	Academic performance in an academic session	
	Coef. Correl.	Val. (2-res)
Gaining knowledge	Coef. Correl.	,271*
	Val. (2-res)	,017
	N	78
Mastering the profession	Coef. Correl.	,257*
	Val. (2-res.)	,023
	N	78
Getting a diploma	Coef. Correl.	,221
	Val. (2-res.)	,052
	N	78

At the second stage of the development study, students were randomly grouped into groups and each group was assigned to a mentor who, using recommendations, conducted an individual approach to each student. The course "Teaching in Higher Education" was conducted for students to receive a master's level of higher education in a mixed

type of education. The programme was implemented using the technology of ensuring the availability of information systems for effective management of the educational process. In addition to educational information, the programme included a system of psychological training where the following forms of work were used: conversations, discussions, games, problem solving, mini-lectures, role programming of objectives, causometric research of the life path, the method of personal constructs of J. R. R. Tolkien. Kelly. For example, the causometric method. Objective: "remember the person's significant traits and note them. In front of each point, note the persons with the specific features. Rank these people by their significance in your life. Now look at which points are in line with your identity. In this way, students learn to be aware of their own hierarchy of values.

Some students attended lectures in person, while others attended lectures remotely. Students had the opportunity to choose their own form of study. Lectures were recorded until the ascertaining experiment. Consultations with the teacher were scheduled in the conventional form (for those who wish) and in a remote format. The established chat in the social network allowed you to quickly resolve any issues that arise with the support of a mentor 24/7.

In the process of such training, the following achievements were observed:

- students switched from passive contemplation to active-transformative activities (students spent the vast majority of their time exchanging experiences from their free time);
- increasing psychological comfort (when students are in a relaxed environment of communication);
- mentors are advised to leave educational conversations about absence from classes, and completely shift responsibility for their studies to students. But pay attention to the individual approach to the "risk" group only by your example. Establish a safe educational space for them;
- regard the person of the student as an equal, recognising that such a student is your colleague;
- considering the individual pace of each student, thus the record of lectures and practices remained available for the exam, thus each student could repeatedly address any subject.;
- variability of subject-object relations, because the implementation of technologies in the educational space is effective when it is possible for any teacher to repeat a particular teaching technology under normal conditions.

The third, Control stage of the experiment was devoted to collecting an anamnesis of the results obtained, conducting control testing in the course "Teaching in Higher Education". Drawing conclusions and advices. The significance of the test results is the increased level of intrinsic motivation in students with appropriately low and inappropriately low self-esteem.

**Table 4.** Test Results for the Course "Teaching in Higher Education"

Subgroups	Estimates	Interest
Subgroup I	1	0%
	2	0%
	3	1%
	4	61%
	5	38%
Subgroup II	1	0%
	2	0%
	3	1%
	4	59%
	5	40%

As a reminder, subgroup I did not include the active involvement of mentors, while in subgroup II the mentors supported the students throughout the day in a humane, compassionate, intelligent way. Through honesty, integrity, commitment, conscientiousness, kindness, demonstrated awareness, modesty and reliability by example. Thus, students of the experimental group passed the exam 2% better than the control group. Most significantly, students with low self-esteem performed overwhelmingly well in the exam and reported personal improvements and identification with the profession. Anxiety and stress levels have decreased, and prospective teachers have fewer questions: What is next? With respect for their own pace, time, themselves, they gained knowledge in those moments

when the necessity came to close the learning gap with new knowledge. They became interested in learning and had questions that they could respond to at any time. They also always had a teacher ahead of them to emulate. Instant application of knowledge in practice allowed being critical of mistakes analysing their causes and not allowing them to be made again.

The first steps towards the implementation of e-learning education have been made in Ukraine. The United Nations and UNESCO are the initiators of this fact. The implementation of the "regulations on distance learning" defines the basic principles of organisation and implementation of modern psychological and teaching technologies for the implementation of the educational process in higher educational institutions of Ukraine (Boychuk, 2018).

It was noted above that in all production, technology emerges from the demand of societal needs. Thus in education – teaching technologies arose as a result of social needs, then research was conducted in the field of psychology and applied psychological and teaching technologies emerged, which at each stage of society's development reflected the latest developments in the educational process. In the future, modern technology will become outdated as well – this should be considered when applying innovations to the educational process. Only one thing will remain unchanged, exactly what educational practice has lacked for many centuries – the figure of a teacher. Special research in recent years has demonstrated that students expect their problems and aspirations to be understood and that they are boundlessly grateful for the conditions provided for their self-assertion. For a child, teenager or young person, the educator is required as a life organiser, providing for the cardinal needs of the learner for self-actualisation and recognition. This data provides a strong argument against the stereotypical view of the educator only as a knowledge-bearer and role model. The student expects the teacher first of all to help in self-determination (Yankovych, 2015, Prokopenko, 2018). To do this, the teacher must constantly develop not only as a professional but as a person. Practising new forms and methods, structure and content of educational material. To be free from stereotypes, a highly moral and bright person, to develop the same creative and innovative future practitioners (Boychuk, 2018). Given the above, the orientation of Ukrainian education to the Western European Space is justified. Nowadays, the variety of teaching Technologies is mostly borrowed from Europe, the USA, Great Britain, and India.

The competency-based approach is being actively implemented in the education system of higher educational institutions. But, unfortunately, only in an empirical way. It consists in the fact that otherwise stated objectives and results are defined in terms of competencies, and the competencies themselves are clarified, particularly in higher education, through surveys and questionnaires of students, graduates, employers and teachers. This approach is being developed according to the Turing project (Helskog, 2019). Therefore, it was a justified step to start the research by determining the competence capabilities of students. At that time, the project mentors had tools for understanding the behavioural features of the individual. The effectiveness of the mixed form of education is obvious because distance learning and management of the educational process automates the document flow of educational institutions. The advantage of e-education is time savings, an increase in the speed of memorising educational material by 15-25% compared to full-time education, the ability to learn at a convenient pace and at any time, the availability of training for all categories of students, the ability to return to material that is not entirely clear, an unlimited number of times (Boychuk, 2018). However, there are disadvantages of this form of training – the lack of a "regulation on distance learning" that would define the types, order, design and implementation of this form of learning on a large scale. According to this regulation, electronic educational resources are Educational, Scientific, informational, reference materials and tools developed in electronic form and presented on media of any type or placed in computer networks, which are reproduced using electronic digital technical means and are necessary for the effective organisation of the educational process (Prokopenko, 2018). The fullness of e-education includes the principles of conventional learning, that is, the availability of textbooks, lectures, practical classes, tests, but on educational platforms, in mobile applications to constantly have a "pocket teacher" with you. Preservation, localisation, cataloguing, and provision of access in compliance with legal norms and without copyright infringement remain relevant. In this regard, society has a new need for leading IT specialists.

Modern technology for implementing the educational process, today, is considered to be the establishment of accelerated development. First of all, such training is promising for capable and gifted students. According to previous studies, 14% of children in the average normal group are ahead of their peers in mental development, and 2% have pronounced mental abilities in the process of mastering the curriculum. The US educational community actively uses accelerated development classes, considering it inappropriate to "mix" them with the average number of students (Sharma, 2015). In the course of the study, students were divided into 2 subgroups to study the phenomenon of accelerated development. In the first subgroup, the number of excellent students and students with academic success was higher. It was they who did not receive external motivation from mentors to study but were guided only by internal motivation (Education 2030, 2016). Their level of achievement at the end of the experiment remained the

same as it was at the beginning. While the level of achievement of students who received external motivation from mentors increased by 2 %. Therefore, the technology of accelerated development has its basis, but it must not be forgotten about the "zone of closest development" – when a student does not have certain fields of development established, this form of training can harm the student's psyche. Therefore, it is advisable to use this form of education only with gifted students. However, working in the classroom with gifted students, the teacher must establish optimal conditions for the realisation of educational opportunities for each student. Must be able to apply 5 different methods in the classroom at the same time, which is impossible in the conditions of the Ukrainian educational present (in particular, the normalised class occupancy rate of 28 students or more). In addition, in the conditions of special training to work with capable and gifted students and gain appropriate practical experience of professional activity in accelerated development classes, the teacher becomes a real professional in teaching and educating the future intellectual elite of the nation. In our country, the training of such specialists is implemented within the framework of the All-Ukrainian scientific and teaching project "intelligence of Ukraine" (Prokopenko, 2018). Such realities, again, initiate a restructuring of the requirements for the modern teacher and teacher of higher education, putting forward diverse requirements for professional and personal qualities. Recently, author's technologies have been gaining demand. One of them is "intellect of Ukraine", proposed by a group of domestic scientists of the H. S. Skovoroda Kharkiv National Pedagogical University, for the study of capable and gifted students (Prokopenko, 2018).

Next, there is the technology of rhetorical interaction (Tkachenko, 2016). Consists of rhetorical interaction between student and teacher appear as an algorithm of actions to develop the communicative-intellectual potential of a future teacher. An example of the technology of rhetorical interaction can be a discussion club that will function throughout the Entire Course "rhetoric", and students choose the subjects of the Discussion Club classes themselves. A business game is a means of modelling rhetorical interaction that can occur in real activities. One of the most common technologies of a modern specialist in any field is the "portfolio" – a folder of documents on the subject as a component of educational activities, which is conducted by students with the educational support of the teacher (Mikhailichenko, 2016). "Portfolio" is generalised information about the best practices of a specialist, his professional achievements.

Recently, technologies for activating students have been quite actively used. The case-study (CSL) method can be considered one such method. The term was first used in the early twentieth century at Harvard to teach business disciplines (Standards and guidelines for... , 2015). "Case study" is an educational case from real practice, which is considered by students in a practical lesson. It allows developing students' skills of analysis, critical thinking, and the connection between theory and practice. The advantage of this method is undeniable, especially when combined with the previous technology. The teacher accumulates practical situations by establishing their portfolio and uses it as a "case study" technology.

The technology of neuropsychological stimulation is becoming widespread. Based on the principle of unity of verbal-logical and emotional-imaginative thinking, ensuring harmonious bihemispheric activity of the student's brain in the process of cognition (Delors, 1996). The learning process is full of motor content, images, and experiences. Lectures and practical sessions include breaks using moving objectives of inter-hemispheric interaction. The practical objectives are designed to allow the exercise to be performed by active interpersonal communication. Notably, for many Ukrainian corporations, the rest of the employees due to inter-hemispheric interaction is the norm. Office workers engage in the prevention of occupational burnout in relaxation rooms, where they can topple a ball over each other, ride swings, play board games and balance on balancers.

Similar to the previous technology, eurythmy – the art of movement – is related to music and the construction of a variety of figures. At the beginning of the lesson, students perform rhythmic movements to musical accompaniment. This can be clapping your hands, jumping up, playing a rhythmic song, reciting poems. At this time, brain activity is activated, students tune in to study. After the rhythmic part, the discussion is introduced to the subject matter of the lesson, or a situation in the world, a figure of history, a law of nature, or any discussion on a free subject. Gradually proceeding to present the basic material and check the homework. The technology is borrowed from the Waldorf School. Steiner's principle of which is the development of the child in rhythm (Towards a European Education Area, 2021).

The author's school of M. P. Pugovits (Prokopenko, 2018), well-known in the educational space of Ukraine, is designed to develop students' inner potential. The objective of a teacher of this field is to notice a student's crucial natural competence and to develop it throughout their studies. Among the key competencies of this technology are:

- language competencies – good command of speech and beautiful writing. Such young men are sensitive to



patterns and their imitation;

- mathematical competencies – students operate with numbers, signs, codes, abstract concepts, and are easy to concentrate on;
- visual-spatial competencies – characteristic thinking in images, geometric shapes and perspectives, the use of metaphors, the perception of a wide range of colours, the ability to establish three-dimensionality of the image in the imagination;
- musical competencies – consistently teaching singing, playing musical instruments, composing and arranging music, develops the ability to feel the melody, rhythm and reproduce them;
- motor competencies – control of body movements. Such people are active, competitive and skillful, have good control of their bodies and move skillfully. Easily assimilate the material that is remembered in movements;
- interpersonal competencies – these children occupy a mediocre position and are more frequently sacrificing their interests for the interests of the collective, easily sensitive to the intentions of others, intuitive;
- intrapersonal competencies – the innate ability to reach into oneself, to listen to one's inner voice (Tsurkan, 2019).

"Technology" from the Greek *techne* – art, *logos* – science, that is, the study of skill. Thus, the most effective way to improve your skills is self – education. Education through life, because the potential of a modern specialist professional in their field is mobility in increasing information resources, orientation in a variety of technologies (European Association of..., 2021). A large number of which are becoming outdated, today society requires young people to master self-education technologies. Scientists have proved that to maintain a high level of professional competence, a specialist needs to read 1-2 newspapers, 1-2 magazines, 100-150 pages of scientific text, 100-150 pages of text for self-development every day (Methods of researching self-esteem SA Budassi, 2021). The variety of the above technologies is implemented on the principle of variability technology. It is the variability that allows teachers to design and choose the educational process according to any models, in particular, the author's (Klymyshyn, 2010, Kopchuk-Kashetska, 2017).

#### 4. Conclusions

Advanced innovative technologies of the modern educational system of Ukraine vary between two options: distance and self-education. Today, the Ukrainian model of distance education is significantly different from the foreign one. But this is not surprising – the difference in mentalities. This makes Ukrainian more "lively", close to the consumer and democratic. Organically combining "mixed Education" (case technologies, rhetoric, competence approach, portfolio) based on the natural potential of students, the teacher can identify the awareness of the teacher's figure in each student. Therefore, according to the author, the main technology that implements the educational process of higher educational institutions of Ukraine is the teacher, especially a young one. Modern conditions of the educational community encourage to take an active part in changes, be mobile and effective. The potential of such a teacher will be greatly enhanced if awareness of the diversity of teaching technologies is increased among young teachers.

Innovative learning replaces authoritarian teaching and finds its supporters both in the teaching staff and among students. Such technologies are: open to the future, values are constantly changing due to the ability to anticipate; focus on constructive actions, continuity of education, the importance of education for the economic development of the country. For many Western countries, education is a policy at the state level. A high professional and general cultural level of the population is considered an important condition for the country's economic development. It allows keeping the competitiveness of the national economy on world markets at the proper level. It is a guarantor of security and social stability. Such trends indicate the main function of education – human development. Education provides everyone who wants to study with opportunities for development and preparation for life.

The research results of this research demonstrated that the "successful" group of students is dominated by the "Acquiring knowledge" motive – they are distinguished by a high level of motivation and mastery of the profession, they demonstrate a high level of cognitive activity in the learning process and derive satisfaction from it. Students have a developed willingness to acquire professional knowledge and skills. In the group of "unsuccessful" students, the motive of "obtaining a diploma" prevails. The purpose of training such students is to obtain a diploma, and not to master knowledge in an academic discipline. Hence, we can assume that the external motive has a low level of

cognitive interest. It is for these students that external positive motivation remains predominant. The use of factor analysis allowed drawing the conclusion that studying at a university is associated with professional development and interpersonal relationships.

Thus, the analysed by the authors design of psychological and teaching technologies became a base for the elaboration of the requirements for the personality of a teacher of higher education in Ukraine. Teaching technology should provide experience. Experience of using internal potential in everyday life, the experience of creatively applying their competencies in the field of professional implementation, the experience of interpersonal relationships with various categories of professional interaction. The teacher should be, first of all, a mentor who will demonstrate the possibilities of self-improvement by their example, who will guide in choosing the field of future practical activity in the context of scientific and technological progress. Guide in choosing the moral and aesthetic values of modern society: live for the country, start a family, or plan your personal life. Or, perhaps, establish a hierarchy of values for a harmonious person.

## References

- Almashiy, I. I. (2019). Psychology of innovation management using information and communication technologies in the activities of environmental public organizations. *Scientific Bulletin of Mukachevo State University. Series "Pedagogy and Psychology"*, 5(2), 105-107.
- Boychuk, O. (2018). Modern psychological and pedagogical requirements for teachers of higher medical educational institution. *Educational Discourse*, 1-2(20-21), 158-167. <https://doi.org/10.28925/2312-5829.2018.1-2.168>
- Chandler, D. (2016). *Strategic corporate social responsibility: Sustainable value creation*. Thousand Oaks, California: SAGE Publications.
- Delors, J. (1996). *Learning: the treasure within; report to UNESCO of the International Commission on Education for the Twenty-first Century (highlights)*. Retrieved from [https://unesdoc.unesco.org/ark:/48223/pf0000109590\\_rus](https://unesdoc.unesco.org/ark:/48223/pf0000109590_rus)
- Dickenson, J. (2017). Creative machines: ownership of copyright in content created by artificial intelligence applications. *European Intellectual Property Review*, 39(8), 457-460.
- Education 2030: Incheon declaration and framework for action for the implementation of sustainable development goal 4: Ensure inclusive and equitable quality education and promote lifelong learning*. (2016). Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000245656>
- European Association of Institutions of Non-formal Education of Children and Youth*. (2021). Retrieved from <http://www.eaicz.cz/>
- Fishman, T. (2020). *The fundamental values of academic integrity*. Retrieved from <https://docplayer.net/121167068-The-fundamental-values-academic-integrity.html>
- Helskog, G. H. (2019). *Philosophising the dialogos way Toward Wisdom in education: Between critical thinking and spiritual contemplation*. London, England: Routledge Publishing. <https://doi.org/10.4324/9781351033985>
- Jousaf, M. (2020). *Types of education: Formal, in-formal and non-formal education*. Retrieved from <https://scholarshipfellow.com/types-of-education-formal-in-formal-and-non-formal-education/>
- Klymyshyn, O. (2010). *Psychology of personality spirituality: a Christian-oriented approach*. Ivano-Frankivsk: Hostynets.
- Knight, J. (2015). Updated definition of internationalization. *International Higher Education*. Retrieved from <https://ejournals.bc.edu/index.php/ihe/article/view/7391/6588>
- Kopchuk-Kashetska, M. S. (2017). *Formation of moral and ethical values of junior schoolchildren by means of Ukrainian ethnograph*. Ivano-Frankivsk, Ukraine: YARYNA.
- Methods of researching self-esteem SA Budassi*. (2021). Retrieved from <http://testoteka.narod.ru/lichn/1/27.html>
- Mikhailichenko, M. (2016). *Educational technologies*. Kyiv, Ukraine: CPRINT CPU.
- Mitchell, G. (2020). *Essential soft skills for success in the 21st century workforce as perceived by Alabama business/marketing educators*. Retrieved from [http://etd.auburn.edu/bitstream/handle/10415/1441/Mitchell\\_Geana\\_57.pdf](http://etd.auburn.edu/bitstream/handle/10415/1441/Mitchell_Geana_57.pdf)

- Peiró, P. (2020). Eu'universitas excellence for all europeans. Value-Oriented Approach in Education and the Allocation of European Integration: *Materials of International Science-Methodical Conference*, 88-89.
- Prokopenko, I. (2018). *Pedagogical technologies in teacher training*. Kharkiv, Ukraine: KhNPU.
- Sharma, R. (2015). Role of universities in development of civil society and social transformation. *Proceedings of International Academic Conferences*, 2604181.
- Shekhovtsova, S. (2017). *Theoretical and methodological principles of forming the subjectivity of future teachers of foreign languages in the process of professional training: thesis of doctor of pedagogical sciences*. Starobilsk, Ukraine: Luhansk Taras Shevchenko National University.
- Shkyrta, I. M., & Lazar, V. F. (2019). Information technologies and means of their implementation in higher education institutions. *Scientific Bulletin of Mukachevo State University. Series "Pedagogy and Psychology"*, 5(2), 45-48.
- Standards and guidelines for quality assurance in the european higher education area*. (2015). Retrieved from [https://enqa.eu/wp-content/uploads/2015/11/ESG\\_2015.pdf](https://enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf)
- Tkachenko, L. (2016). *Rhetoric in the system of vocational training: The history of the discipline*. Kharkiv, Ukraine: Pravo.
- Tong, X. (2021). Effects of blockchain law course integrated multimedia dynamic teaching on students' learning motivation and learning effectiveness. *Revista de Cercetare si Interventie Sociala*, 74, 33-47.
- Towards a European Education Area*. (2021). Retrieved from [https://ec.europa.eu/education/education-in-the-eu/european-educationarea\\_en](https://ec.europa.eu/education/education-in-the-eu/european-educationarea_en)
- Tsekhmister, Ya. (2018). *Innovations in science: The challenges of our time*. Ontario, Canada: Accent Graphics Communications and Publishing.
- Tsurkan, V. (2019). *Formation of the meritocratic scientific elite of Ukraine in the era of the digital revolution: Fragments of history and contemporary challenges*. Chicago, Illinois: Accent Graphics Communications.
- Vasileva, O. (2015). *The use of psychological technologies in the modern educational space*. Retrieved from [http://sophus.at.ua/publ/2015\\_10\\_30\\_kampodilsk/sekcija\\_section\\_4\\_2015\\_10\\_30/vikoristannja\\_psikhologichni\\_kh\\_tekhnologij\\_v\\_suchasnomu\\_osvitnomu\\_prostori/105-1-0-1524](http://sophus.at.ua/publ/2015_10_30_kampodilsk/sekcija_section_4_2015_10_30/vikoristannja_psikhologichni_kh_tekhnologij_v_suchasnomu_osvitnomu_prostori/105-1-0-1524)
- Wang, W. (2021). Evaluation principles' influence of critical thinking foreign language teaching on german literature classroom learning motivation. *Revista de Cercetare si Interventie Sociala*, 73, 81-94.
- Yankovych, Yu. (2015). *Educational technologies of modern educational institutions*. Ternopil, Ukraine: Hnatiuk Ternopil National Pedagogical University NPU.
- Zazimko, O. (2015). *Education quality assurance system in a research university*. Kyiv, Ukraine: NUBiP of Ukraine.

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