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DEVELOPMENT OF THE INNOVATIVE POTENTIAL OF YOUNG PEOPLE ON THE BASIS OF THE USE OF THE UNIVERSITY HACKATHON ECOSYSTEM

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BACKGROUND AND OBJECTIVES. Significant contradiction between the need of modern Ukrainian society in innovation-oriented specialist personality, on the one hand, and the level of readiness of university graduates to innovative professional activities, on the other hand, generates the problem of finding ways and means of formation of innovative potential of personality in scientific and educational environment of university on the basis of holistic dual educational concept. Problematic issues of how to organize the process of professional training of future specialists, how to promote the development of their innovative potential, what are the conditions and mechanisms of this process constitute the problem field of this study

METHODS. The research used methods – activity approach to the problem of personal development; personality-oriented approach to professional training of students; competence approach to university training of students; acmeological approach to the study of human development; mutual influence of personal and professional development; environmental approach – to the problem of formation and development of students' innovation potential. Processing of the results of the survey to determine the proportions of the main components of students' innovation potential on the basis of Hackathon ecosystem was carried out by expert method.

FINDINGS. The mechanisms for implementing the concept include the integration of education, science and practice; analysis of innovation needs and innovation capabilities of subjects of education; creation of infrastructure elements necessary for the functioning of the innovation system at all stages of the educational process; formation of a data bank of innovative projects, ready for implementation, technology platforms, information support for the development of innovative youth potential in the scientific and educational environment of the university.

CONCLUSION. Scientific and educational environment of the university is a synthesized integrated phenomenon that systematically combines the structures of research, scientific, pedagogical and other activities in their complex interaction to implement the goals and objectives of training and professional and personal development of specialists, ready for innovative activity in the conditions of lifelong learning. The expected results of the concept are expressed in the transition to the use of modern dual educational programs, methods and technologies of educational process implementation in the university, aimed at continuous development of innovative thinking of young people, improving skills and motivation, identifying and setting tasks of creating new knowledge aimed at their solution, information search and processing, independent and teamwork and other competencies of innovative activity based on knowledge of its essence and on practical experience.

KEYWORDS: innovation potential; university; Hackathon ecosystem.

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10	1	1

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РОЗВИТОК ІННОВАЦІЙНОГО ПОТЕНЦІАЛУ МОЛОДІ НА БАЗІ ВИКОРИСТАННЯ ХАКАТОН-ЕКОСИСТЕМИ УНІВЕРСИТЕТУ

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ПОСТАНОВКА ПРОБЛЕМИ ТА ЗАВДАННЯ. Істотна суперечність між потребою сучасного українського суспільства в інноваційно орієнтованій особистості спеціаліста, з одного боку, та рівнем готовності випускників університету до інноваційної професійної діяльності, з іншого боку, породжує проблему пошуку шляхів та засобів формування інноваційного потенціалу особистості в науково-освітньому середовищі університету на основі цілісної дуальна освітня концепція. Проблемні питання про те, яким чином необхідно організувати процес професійної підготовки майбутніх фахівців, як сприяти розвитку їх інноваційного потенціалу, які умови та механізми цього процесу складають проблемне поле даного дослідження.

МЕТОДИ. У дослідженні були використані методи – діяльнісний підхід до проблеми розвитку особистості; особистісно-орієнтований підхід до професійної підготовки студентів; компетентнісний підхід до вузівської підготовки студентів; акмеологічний підхід до вивчення розвитку; взаємовплив особистісного та професійного розвитку; середовищний підхід – до проблеми формування та розвитку інноваційного потенціалу студентів. Обробка результатів опитування щодо визначення пропорцій основних складових інноваційного потенціалу студентів на базі Хакатон-екосистеми здійснювалася експертним методом.

РЕЗУЛЬТАТИ. До механізмів реалізації концепції відносяться інтеграція освіти, науки та практики; аналіз інноваційних потреб та інноваційних можливостей суб'єктів освіти; створення необхідних функціонування інноваційної системи елементів інфраструктури всіх етапах освітнього процесу; формування банку даних інноваційних проектів, які готові до реалізації; технологічних майданчиків; інформаційна підтримка розвитку інноваційного потенціалу молоді у науково-освітньому середовищі університету.

ВИСНОВКИ. Науково-освітнє середовище вузу є синтезованим інтегрованим явищем, що системно об'єднує структури науково-дослідної, науково-педагогічної та іншої діяльності в їх комплексній взаємодії щодо здійснення цілей та завдань підготовки та професійно-особистісного розвитку фахівців, готових до інноваційної активності в умовах безперервної освіти. Очікувані результати концепції виражаються у переході до використання сучасних дуальних освітніх програм, методів та технологій реалізації освітнього процесу у університеті, спрямованих на безперервний розвиток інноваційного мислення молоді, удосконалення навичок та мотивації, виявлення та постановки завдань створення нового знання, спрямованого на їх вирішення, пошуку та обробки інформації, самостійної та командної роботи та інших компетенцій інноваційної діяльності, що базується на знаннях про її сутність та на практичному досвіді знайомства з різними варіантами її здійснення.

КЛЮЧОВІ СЛОВА: інноваційний потенціал; університет; Хакатон-екосистеми.

INTRODUCTION.

The profound changes of socio-cultural space, which occurred during the XX – early XXI centuries, actualized the scientific interest in the problems of innovation and human abilities to innovative activity (Linnell et al., 2014). Innovative vector of state development, defined by the concept and strategy of innovative development of Ukraine for the period up to 2030, requires the construction of scientifically sound system of views, principles and priorities for the formation and development of innovative potential of the individual (Gryshchenko, 2015). In the implementation of the state strategy of innovative development it is education that acts as a carrier of the ideology of innovative renewal, and it should create the necessary conditions for innovative processes in the form of a developed environment of knowledge generation, accumulation of intellectual and creative potentials of society (Groen and Calderhead, 2015). The key innovative qualities of personality are: mobility, desire to learn throughout life, inclination to entrepreneurship, risk, international mobility (Zhurko, 2016).

The expert report on the implementation of the Strategy for Innovative Development of Ukraine for the period until 2020 points out the low level of special training of university graduates, who, having found a job after graduation, undergo a long adaptation period caused by the inability to match their knowledge with practical activities. Young professionals who have recently graduated from the university have not developed the skills to participate in projects, which require communication and management skills, as well as skills in planning and self-organization of activities in addition to professional skills. According to expert estimates, tens of thousands of advanced technological developments remain unrealized. In order to successfully promote them in the Ukrainian and foreign markets we need about 200 thousand specialists in the field of technological management and innovation activities.

The transformations taking place in the society put an imprint on many spheres of human activity and existence. In the era of formation of new technological space, changes in socio-cultural environment there is a social demand for a personality, who is able to live and work productively in conditions of global changes, uncertainty, challenges. In this situation, the issues related to human development corresponding to these transformations are actualized, and the sphere of education is considered as the most important factor of reproduction of "human capital", which determines the further progressive development of the country (Stoltzfus et al., 2017).

The changes taking place in the society, complication of professional tasks make the demand for higher education institutions to train specialists for innovative activity urgent. In order to develop students' innovative potential, modern educational process in higher education institution should have a

personal-professional orientation. A significant factor in the development of students' innovative potential is the educational environment and psychological and pedagogical support of the educational process.

The main contribution to the formation of innovative activity competences is made by the education system. The main role in the development of innovation system is assigned to universities not only due to the fact that they are the key institutions of knowledge production and concentration, providing its generation, actualization, distribution and application in the process of educational and research activities, but also because the educational space of universities lays the innovation potential of the future specialist. The priority role of education system in creating conditions for innovative development is conditioned by the fact that all its stages should be focused on the formation and improvement of skills and competencies of a person, who will be able to successfully solve the tasks of innovative development of Ukraine in the future, easily adapt to rapid social changes.

The analysis of knowledge economy concepts allows us to characterize it as post-industrial, informational, globalizing, networked, innovative, in which knowledge enables the generation of a continuous flow of innovations. Innovation does not simply become a response to the dynamically changing needs of society, but also stimulates their further development.

The innovative potential of man, included in socio-economic relations, is an important factor of social transformation and innovative progress of Ukraine.

The concept of "potential" includes the possibility of expanding the boundaries of the traditional subject of the study of what a person is, to what he can become. In a wide range of scientific works the term "potential" is most often used not in a specific scientific way, but metaphorically – as a synonym of terms "resources" or "opportunities" (for example, aesthetic potential, economic and production potential, science potential, development potential, etc.). The innovative potential of a person can be considered as a set of personal properties and abilities "to create, perceive, implement innovations, as well as in time to abandon outdated inappropriate ways of activity" (Groen and Calderhead, 2015).

J. Yao, H. Li, D. Shang, L. Ding note that the main characteristic of a subject of innovation is his activity self-consciousness, i.e. the understanding of his personal initiative as subjectively possible and socially accepted basis of his own existence (Yao et al., 2021). At the same time a person can have both aspiration to develop his/her own innovation potential and internal resistance. Let us point out that it is within the framework of sociology that the issues of innovation susceptibility and resistance to innovation from the perspective of the human factor are addressed. The social characteristics of innovative thinking carriers have a significant influence on the course of the innovation process.

These objective and subjective properties of the carriers of the innovative way of thinking in practice are embodied in an innovative type of behavior.

In connection with the relevance of the above it is necessary to note the increasing interest of domestic researchers to the problem of innovative potential of university students, because in the youth educational environment there are acquisition of knowledge, abilities and skills on specialty, formation of professional identity and exposure to the range of professional problems, which university graduates will solve in the future. Student age due to psychological and physiological characteristics allows to better reveal and individualize creative abilities, initiative, ingenuity, non-standard approach, as well as the ability to take risks and be responsible for the actions taken, which is especially characteristic for the formation and implementation of the innovative potential of the individual.

The introduction of innovative technologies in various spheres of human life leads to dramatic changes in the requirements for the preparation of young people for the upcoming professional activity. One of the main issues considered today is the efficiency of modern educational process in higher education institution aimed at graduating competitive specialists able to work fruitfully in knowledge-intensive industries, participate in innovations, building post-industrial society (Linnell et al., 2014)

Today, when the society enters the era of knowledge, high technology, human creativity, his professionalism, flexible response to changes in the external environment are valued. With the importance of all levels of education, the process of preparing young people for future professional activities in higher education institutions acquires special importance. A modern specialist must be able to respond to challenges, set tasks and solve them, have a broad outlook, be open to new formats, constantly develop, be a subject of labor primarily in the status of a creative person, respond to innovations, find solutions to non-standard problems.

Speaking of preparing young men and women for independent professional activity, it is necessary to take into account the tasks that they will have to solve in this age period. This is the time when they think about the future. The prospects of tomorrow become the main dimension for them, the independence of the individual is asserted, the complexity of social life takes place. The social situation of development for young people is characterized by the fact that society sets before them the task of professional self-determination. This period is significant in terms of the development of value orientations, life positions, the formation of a worldview, a conscious attitude toward life, the recognition of oneself as a member of social community, the choice of social position and the ways to achieve it. The leading activity at this time is educational and

professional. It is in this activity that mental processes and personal peculiarities of students develop to the maximum (Groen and Calderhead, 2015).

An important component of the modern educational process in higher education institutions is the development of innovative potential of students. A. Stoltzfus, M. Rosenberg, H. Lapp, analyzing the concept "innovation potential", first of all, distinguish personal qualities of a person (tolerance to uncertainty, ability to justified risk, responsibility, need for self-realization, motivation of achievement, reflexivity, creativity (qualities of intellect, intellectual initiative); competence, ability to interact with other people, features of value and semantic sphere, working capacity, self-regulation level (Stoltzfus et al., 2017).

N. Linnell, S. Figueira, N. Chintala emphasize such personal parameters, testifying about the developed innovative potential, as aspiration to novelty, sensitivity to contradictions, openness to experience, ability to act in unpredictable, unstructured situations (Linnell et al., 2014).

Competences and personal characteristics that constitute innovation potential help a person not only to carry out innovative activity, but also to the maximum extent self-realization. The development of innovation potential is closely connected with the processes of self-improvement and self-development of a person. A person, developing his innovation potential, "expands his own space of life, horizons of his consciousness, his being in the world" (Linnell et al., 2014).

Proceeding from the fact that modern reality makes it necessary to train a specialist with innovation potential, higher education institutions should create an optimal educational environment for young people to acquire competitiveness in the labor market and professional development.

In order to develop students' innovative potential, modern educational process in a higher education institution should have a personal-professional orientation, i.e. be focused not only on transferring specific knowledge, abilities, skills to a future specialist, but also develop the personality of a student in the educational process. The need for personal development of a modern specialist is indicated in the competences of educational programs of higher education institutions. In the context of the challenges of society, global changes, it draws us to the realization that the human resource is fundamental in all transformations. From this point of view, the development of personal competences can be considered as one of the central characteristics of the educational environment of a modern higher education institution.

Self-development is very important in unlocking an individual's innovative potential. D. Groen, B. Calderhead in their works repeatedly drew attention to the fact that for a person is significant outgrowth of development in self-development. This manifests itself in activity. These scientists emphasized that

routine work, as a rule, does not serve the development of a person. But the solution of tasks requiring the active work of the intellect, motivation and volitional manifestations, creation of something new, non-standard, provides the development and self-development of a person (Groen and Calderhead, 2015).

I. Gryshchenko interpreted such situations as follows: "In creativity the creator himself is also created. There is only one way to create a great personality: great work on a great creation". It can also be fully referred to innovative activity where a person is improved in accordance with the principle of personal development in activity (Gryshchenko, 2015).

T. Zhurko emphasized that "the social value of his personality and socially significant potential which he is able to realize in his deeds, but also the character of that new frontier on which he comes in his development depends not only on the value of creative-innovative caliber of deeds of the person, on degree and quality of investment of his mind, feelings, will in these deeds" (Zhurko, 2016). Innovative activity contributes to the transformation of potencies into opportunities, development of reserves, finding solutions to increasingly complex problems and at the same time stimulates the transition of a person to higher stages in their development. Participation in innovative projects contributes to the change of individual, personal and subjective characteristics of students. The scale of innovative activity tasks, mental activity of the person performing it, the degree of motivational involvement and engagement in the activity largely influence his/her personal and professional development.

The hypothesis of the study is represented by a number of assumptions to be developed and tested in the study:

- the concept of formation of innovative potential of the personality will have high explanatory possibilities if it is based on the use of systemic, integrative-activity, personality-oriented, competence-oriented, acmeological approaches and includes the description of regularities, principles, model, algorithm, efficiency criteria, necessary and sufficient psychological conditions and mechanisms of this process;
- the effectiveness of the concept implementation in the practice of professional training is provided by the reliance on the model, conditions, factors and characteristics of the scientific and educational environment, providing a personality with the opportunity to gain experience of innovative activity and creating conditions for the formation and development of its innovative potential;
- the main directions of development of personal innovative potential should correspond to its main structural components, which are innovative orientation, innovative competence and innovative creativity;

- the effectiveness of the formation of the innovative potential of the individual assumes: a) the development of strategy, tactics and technology dual educational process based on the model of innovative potential; b) implementation of high-quality diagnostics of the level of formation of innovative potential of the individual in its stages of formation; c) comprehensive accounting of diagnostic data in the process of formation; d) development and implementation of support program of this process, technology and infrastructure support stage-by-stage improvement of the level of innovation potential of the individual; e) the development of the innovative potential of the individual.

The aim of the article is to develop the innovation potential of young people on the basis of the use of the university Hackathon ecosystem. The study is based on the data of Kyiv National University of Technologies and Design in 2021.

MATHERIALS AND METHODS.

The contradiction between the need of modern Ukrainian society in innovation-oriented specialists and the level of readiness of university graduates to innovative activity in professional sphere generates the necessity of searching the ways and means of formation of innovative potential of personality in the scientific and educational environment of university (Gryshchenko, 2015). That is why the sociological research "Innovative potential of student personality: formation in the scientific and educational space of university" in KNUTD at the Faculty of Management and Business Design was carried out. The method of collecting information was a questionnaire survey. The choice of quantitative methodology corresponded to the nature of the tasks to be solved.

The aim of the research was to study the innovation potential of students and to identify the problems of its formation in the scientific and educational space of the university. 196 students of 1–3 years took part in the survey. The sample is representative of the number of students in different training areas of the Faculty of Management and Business Design of KNUTD. The survey was conducted in April 2021.

Difficulties in research of innovative potential are caused by absence of the generally recognized idea about the content and structure of the given concept. The main reason for this is the complexity and multifaceted nature of the innovation potential of the individual in general and the student in particular.

At present the considered problematic touches upon different fields of knowledge, which offer their own approaches for researching the totality of creative, educational and social aspects of innovative activity. Undoubtedly, the leading position in the study of innovation potential of the individual is taken by social psychology. Psychological problems of innovation are partially reflected in other fields of knowledge, and as a result, related and interdisciplinary

approaches to the analyzed phenomenon are formed. The influence of the psychological approach is also found in sociological studies.

We can agree with the previously indicated authoritative opinion that the innovative potential of the individual should be interpreted as a set of personal properties and qualities that allow "create, perceive, implement innovations, as well as timely abandon outdated unreasonable ways of activity". Based on the notion of personal potential as a set of resources for the implementation of innovative activity, many authors propose to study personal qualities and competencies necessary for innovative activity.

Determination of the proportions of the main components of the innovation potential of the students surveyed on the basis of the Hackathon ecosystem is carried out with the help of equation (1):

$$\mu C_1 = \frac{\sum A(R_1),\ldots A(R_n)}{n}, \quad (1)$$

where $A(R_{1\ldots n})$ – students' answers;

$C_1 \ldots C_{10}$ – evaluation criteria;

$\mu C_1 \ldots C_{10}$ – the total numerical score of all students surveyed.

RESULTS AND DISCUSSION.

Innovative activity motivates students to go beyond their own limits, helps to expand the system of perceptions, mobilizes its potential, stimulates human self-development. Thus, the complication of realized activity leads to the development of personality through its self-transformation, internal self-transformation work, qualitative transformations.

Since modern strategies of preparing young people for professional activities are determined not only by the formation of knowledge, abilities and skills, but also by significant personal transformations, its self-realization in the professional space, the desire to present its point of view to the world, the university should be focused on creating an innovative environment in the formation of students' competences. That is to create conditions that provide prerequisites for effective formation and development of innovative activity, where the opportunity for implementation of new technologies of problem solving is provided.

The functioning of this environment should be based on a system analysis of the object, subject, processes, conditions of innovative development. In addition, it is important to determine the criteria of effectiveness of the environment from the position of implementation of the principle of continuous development of participants in the educational process. Such approach makes it possible to optimize the process of personal and professional formation of a future specialist, to develop students' ability to generate new ideas, generate new

technologies, and create new products. In order to stimulate the development of students' innovative potential, it is necessary for them to gain personal experience of participation in the development and implementation of innovations, practical implementation of promising innovative projects. In addition, it is important for students to be able to participate in their education, choose an individual educational trajectory, show educational initiatives and implement them in educational and research activities.

When considering the process of training young men and women for innovative activity in conditions of high competition, increasing complexity of tasks, the question of psychological and pedagogical support of the educational process in the formation of innovative potential of students becomes relevant. It is known that one of the main principles of psychological and pedagogical support of the educational process is to take into account individual characteristics of students, their capabilities, development of resources. This process should be aimed, first of all, at actualization of personal competences, which determine innovation activity. Its main components are diagnostics, which would be focused on identifying students' resources when solving non-standard tasks in a situation of uncertainty, determining individual trajectories of their entry into innovation activity, supporting participants of innovation projects, developing programs for monitoring the results of psychological and pedagogical support of educational process participants.

The relevance of psychological and pedagogical support of the educational process in the university is also associated with the fact that the student age is characterized by the focus on self-knowledge, self-affirmation, personal self-determination, which act as a need for young people to take the internal position of an adult, to realize their place in society, to understand themselves and their capabilities (Groen and Calderhead, 2015). Psychological and pedagogical support of educational process should also be focused on development of reflection of young people, ability to correlate their abilities, pretensions with requirements of society, on comprehension in full of social expectations from their work. An important component of psychological and pedagogical accompaniment is to help students organize their cognitive activity, develop communicative abilities, value and semantic reference points.

The innovative potential of a person is realized in direct practical activity. Any human activity requires active manifestation of personal properties. Activity is a measure of interaction of a subject with the surrounding reality as a special way of self-expression in society, at which a higher level of development is achieved, reflecting not so much quantitative characteristics of activity as qualitative ones. The innovative potential of a personality is an integrative characteristic of a personality in a set of personal properties, qualities and abilities, providing its readiness to generate new forms of activity on creation,

development and distribution of innovative educational products, as well as self-development and personal growth as a strategic factor of productive innovative activity (Yildizer, 2017). The innovative potential of a personality in scientific and educational environment of higher education institution implements target, motivational, creative, prognostic, transformational functions, function of development and formation of innovative experience and practice-orientation.

There are three components of innovation potential. The first one is professional competences, important in development of innovations (understanding of strategic goals of organization and society development, ability to see problems clearly, breadth of knowledge, well formed abilities and skills of professional activity, diverse interests, ability to generalize special knowledge, ability to analyze problems objectively, ability to see other people's capabilities and use them for business, effective feedback skills, high work capacity). The second component – creativity (intuition, flexibility of mind, extensive associations, unusual view of things, originality, the ability to see the subject from different sides, the ability to recognize only emerging trends) (Lopatenko, 2016). The third element is entrepreneurialism as a resource for promoting innovation (high level of motivation for success and risks, knowledge of the market, trends in its development, initiative, the ability to find new uses for the "object", flexible work style) (Stoltzfus et al., 2017). In most studies innovative potential of the personality of a modern specialist in the most generalized form is considered as a set of motives, properties and qualities of the personality, manifested in new, non-standard ways of activity in order to satisfy the existing and newly arising material, social and spiritual needs (Taylor, 1999).

Based on the analysis and synthesis of existing approaches to the definition of the category "innovation potential of the personality" we formulated the concept "innovation potential of the student personality": a set of social and creative qualities of the student personality (entrepreneurial spirit, competence, creativity) and motives that characterize his readiness for innovative activity (Riesener et al., 2019). The set of important features of innovative personality of a student appears as follows:

- enterprising – the presence of an active life position, initiative, the ability to find solutions in difficult situations, the ability to take responsibility, communication skills;
- competence – breadth of knowledge, diverse interests, confidence in professional choice, high working capacity;
- creativity – active creative and intellectual development, manifested in research activities or in extracurricular activities of the university.

Analysis of sociological research data showed that most of the students to a greater or lesser extent have qualities of innovative personality. In particular,

about a quarter of the respondents have no doubt that they have an active life position (24.5%), the same number of respondents expressed their readiness to take responsibility in a critical situation and demonstrate such qualities as resourcefulness and ingenuity. Using the most common methods to assess the level of development of youth innovation potential (M. Kirton's Method; Method STYLES; "Simplex method" M. Basadur; The Method of Rotter) allows ranking the degree of manifestation of the main components of innovative potential in students (tab. 1).

Table 1

Assessment of the level of development of the main components of innovation potential of young people

Methods	Indicators of innovation potential	Minimum	Maximum	Average value	Standard deviation
M. Kirton's Method	The coefficient of innovation (KAI)	2,1	127,1	112,27	18,12
Method STYLES	Composite index of innovation (CI)	12,1	121,1	115,22	12,86
	Creativity of thought	9,1	22,1	22,41	4,22
	Purposefulness of decisions	11,1	25,1	26,11	2,91
	Focused on Achieving the Goal	11,1	28,1	27,96	4,41
	Social partnership	12,1	25,1	27,91	4,19
«Simplex method» M. Basadur	Involvement in research	11,1	122,1	41,14	11,87
	Ability to generate ideas	7,1	124,1	28,67	14,62
	Ability to think	11,1	125,1	25,65	12,87
	Ability to assess the situation	12,1	126,1	29,94	14,57
The Method of Rotter	General internalism (inclination to take responsibility for the events on oneself), points	8,5	57,1	22,81	24,21
	General externality, (inclination to attribute the causes of events to external factors), points	2,1	8,5	5,2	2,2

About a third of the students (20.6%) can easily establish contacts with people, which indicates a high level of sociability. About half of the respondents not fully possess these qualities (51.5% doubt their own active life position, 58.7% are not ready to take responsibility in a critical situation, and 42.9% have difficulties communicating with people). An active life position, serving as a basic component of innovation activity in the future, was inherent in the respondents back in school. Only 12.5% of the study participants did not attend additional classes, the rest chose sports sections (49.2%), various types of electives (48.7%), engaged in creativity (18.5%). While studying at the university, students preferred primarily the scientific sphere, participating in conferences and projects (55.0%) as an additional activity.

In "extracurricular trajectories" at the time of the survey 20.6% of respondents participated. The most popular were: international relations – 22.2%; leadership and initiative – 27.4%; entrepreneurship – 17.7%; culture and creativity – 16.1%. However, the classes are fully satisfied only a third of respondents.

To improve the effectiveness of the trajectories and the development of motivation students suggest the organizers to invite more interesting people, experts, speakers to hold events (28.2%), also students would like to update the methods of classes (26.7%) and diversify activities in the areas and profiles of training (25.0%). The main reason for non-participation in extracurricular activities respondents indicate a lack of interest – 27.4%. Sufficiently high level of respondents' satisfaction with their professional choice (60.2%) creates the basis for successful formation of professional competences and indirectly indicates the presence of competence as the most important characteristic of innovative personality.

Research and development activities should play a huge role in professional development of a specialist in innovative society. It contributes to the manifestation of creativity as an intellectual basis of innovations in any sphere. The majority of respondents (62.7%) are sure that a student should necessarily participate in such work during his/her studies. However, as the results of the questionnaire showed, only 12.8% of respondents take an active part in it, 28.2% participate sometimes, 24.0% have a desire, but it has not yet been realized. These data indicate the possibility and need for further expansion of research activities. Most of the respondents are satisfied with the conditions created in the university for the creative and intellectual development of the student (65.9%). And 48.4% of the respondents have ideas about creating a brand or firm. These survey participants, as well as those who still doubt their ideas (27.1%), would be helped to become more confident and active by attending Hackathon activities, because this is where a creative environment for the implementation of business projects and business ideas should be formed. Nevertheless, the survey found that only 27.7% of respondents attended the Business Hackathon events, and the majority (62.7%) did not participate in it. Lack of time (29.7%) and lack of interest (24.1%) were cited as the main reasons for this. The main purposes of visiting this site respondents consider getting information at expert lectures (65.8%), meeting new people (26.0%), turning business ideas into reality (19.8%), and acquiring the necessary knowledge and skills (19.8%).

The cluster analysis of the research results allowed us to identify and describe three groups of respondents by the level of innovation potential development: active innovators (48.4%), potential innovators (24.9%) and passive innovators (16.7%). Active innovators show a high level of participation

in research activities and are more often involved in extracurricular trajectories, the majority of such students are second-year students. The peculiarities of potential innovators are low self-esteem in the field of entrepreneurship, also low degree of awareness of a variety of activities in extracurricular and academic activities of the university. However, in this group there are a lot of those who have a desire to be active and develop their innovative potential. Such students are in the majority in the first year. Passive innovators are characterized by low level of participation in extracurricular trajectories and scientific and educational space of the university, but they are characterized by high assessment of their own entrepreneurial spirit, which can serve as a basis for development of innovative potential in the sphere of business and entrepreneurship. The majority of such respondents turned out to be in the third year (Fig. 1).

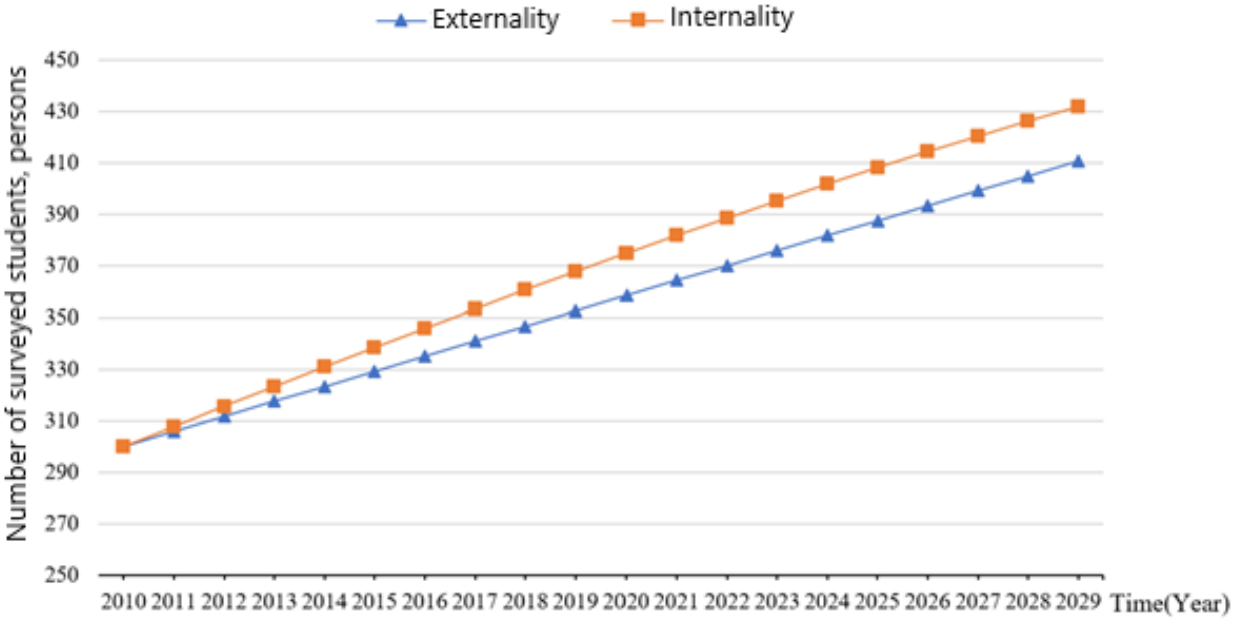

Fig. 1. **Forecast of the ratio of internality and externality of the development of innovation potential of young people**

Thus, the survey of students of Kyiv National University of Technologies and Design allowed us to establish that most of them are aware of the importance of development of personal innovation potential in the scientific and educational space of the university and almost half of them show a high level of innovation activity already in the university, participating in research activities and expressing interest in a variety of extracurricular trajectories of personal development. Most students are satisfied with their professional choice and the conditions created by the university for the development of human innovation potential. At the same time, the following problems are revealed: there is a low

level of activity and poor awareness of various activities in extracurricular and research activities of students, who constituted the majority in the cluster of potential innovators; there is a tendency of decrease in the level of innovative potential among third-year students in comparison with that of second-year students; a significant part of the respondents shows weak motivation and participation in research work and attendance at business-Hackathon.

Thus, the development of students' innovative potential becomes an important component of the educational process of a higher educational institution today. For this purpose, in addition to professional development of future specialists, it is necessary to carry out personal development. Invaluable role here can play psychological and pedagogical support of students' entry into innovative activity, largely contributing to the transition process of personal development in self-development. The study of the issue of personal self-development as a significant resource for the formation of innovative potential of students in the educational process is of great practical importance, helps in preparing young people for professional activity in modern conditions.

A new stage of social development, knowledge-intensive economy make urgent the need to develop innovation potential, personal formation of future specialists, as it is the personality that acts as a carrier and exponent of universal resources of civilization transformation. This creates the need to study the development of personal innovation potential in the process of learning in higher education.

CONCLUSION.

Thus, on the basis of generalization of studies of the essence and structure of personal innovation potential we have developed the following definition. The innovative potential of a personality as a subject and participant of scientific and educational environment of a university is an integrative characteristic of a personality in a set of personal properties, qualities and abilities that ensure its readiness to generate new forms of activity in creating, mastering and distributing innovative educational products, as well as self-development and personal growth as a strategic factor of productive activity. It is necessary to create favorable conditions for the development of innovative potential in all types of educational and extracurricular activities, to expand innovative forms of scientific and educational space of university and to improve motivational mechanisms of intellectual, creative and entrepreneurial activity of students. In particular, as the research results have shown, it is necessary to involve students more actively, starting from the first years of study, in research work, which significantly develops the innovation potential of an individual. The results of the surveys also allow us to conclude that individuals with high innovation potential may have a subjectively higher assessment of the quality of life. In addition, they are potentially able to put more effort into changing the objective

characteristics of the quality of life. Therefore, the work on the formation of innovative activity of students in general can help to improve the life of the entire Ukrainian society in the future.

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ABBREVIATIONS

Eq.	Equation
fig.	Figure
HEI	Higher education institution
HE	Hackathon Ecosystem
KNUTD	Kyiv National University of Technology and Design

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