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# **CREATIVE ECONOMY AND MANAGEMENT**

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The most important problems of forming a creative economy in Ukraine have been given consideration. The analysis of current development of Ukraine's regions according to the Global Creativity Index has been conducted. The features of the creative approach to the management of workers and their teams at domestic enterprises have been detailed.

For full-time Master's (second) degree students of all specialities.

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## Introduction

Every person would agree with the point that we are now living in the information economy or knowledge economy. However, more significant truth, according to R. Florida, lies in the fact that the modern economy is driven by human creativity. Creativity – "the ability to create meaningful new forms", according to the Webster Dictionary – has become the main source of competitive advantage. Practically, in any field of production, from the automotive to fashion industry, food industry and information technology, he who has creative potential eventually wins.

Creativity acts as the most valuable commodity of the modern economy – not being its own commodity. Creativity comes from people. Despite the fact that a person can be hired or dismissed, his creative abilities cannot be bought and sold, or turned on and off as desired. That is why we are witnessing the emergence of new rules in businesses and offices. While formerly, prohibition of discrimination in recruitment was a requirement of the law, now it is the matter of the company economic viability, because creativity does not depend on the color of the skin, sex or personal preferences. The schedule of work, corporate rules and uniforms have become more liberal, obeying the peculiarities of the creative process. Employers, employees of firms and communities, where these firms are located, are obliged to encourage and stimulate creativity in all available ways. Not surprisingly, the creative ethnic group goes beyond the scope of professional activity, penetrating into all spheres of our lives.

In today's business, access to talented and creative professionals is roughly the same as once there was access to coal and iron in the steel industry. It determines where the companies will emerge and develop, which, accordingly, changes the conditions of competition between cities. The new working environment of "casually dressed professionals" looks, undoubtedly, more relaxed than the old one; instead of traditional hierarchical control systems, new forms of self-organization, recognition and influence of colleagues and internal forms of motivation have appeared. In such an environment, creative individuals tend to work more independently, refuse to guarantee employment in exchange for independence. Companies of all types, including the largest and most famous ones, are trying to adapt to these changes by providing a special working environment that is essential

for creativity. The success of similar knowledge-based industries increasingly depends on the ability to organize the company's work in order to attract, retain and motivate intelligent personnel. When this can no longer be achieved through material means, it will have to meet their value requests as well as provide them with public recognition and a certain amount of power.

The question of managing the creative potential of employees at micro- and macro levels, creating conditions for its development, has been studied in this textbook. The textbook is intended to reveal the essence of the creative economy and management as a science and type of management activity. To apply this knowledge to practice, the modern manager needs to master the methods of identifying and setting managerial problems, and conduct their system analysis, methods of finding solutions.

The manager must carefully select the staff, personally study and know the creative potential of each person, group and team, be able to form a creative team that would work smoothly on the solution to the problem, become a creative team, be able to keep pace with the peculiarities of the development of the environment, know the opportunities to be used and threats to be avoided in the activities of the organization. Therefore, the textbook considers such issues as the peculiarities of the development of a modern creative economy in Ukraine and abroad, the features and development of the chain: "creative economy – creative society – creative organization – creative person". In order for the manager to fully reveal his creative potential, internal and external motivators are needed. The textbook provides a theme about the motivation of creative personalities. Considering the relevance of the formation of a creative society, the textbook presents analysis of Ukrainian society according to the main criteria of creativity, proposed by a renowned researcher of this problem – R. Florida. In addition, the main features of the protection of intellectual property rights in Ukraine have been identified.

The textbook is intended for students of all specialities. The purpose of studying the academic discipline "Creative Economy and Management" by graduates is the formation of nonstandard thinking, mastering the tools of a creative approach to the solution of industrial problems, analysis of the external environment under the current conditions of the formation of a creative society in Ukraine.

# Section 1

## Creative economy: formation, development and institutional environment

**The purpose:** acquisition of knowledge and skills in the field of formation and development of a creative economy, its institutional environment, protection of intellectual property rights, mastery of tools for determining the level of creativity of the regions.

**The professional competence:** the ability to identify the peculiarities of the development of the creative class, creative industries, to take into account the peculiarities of regional development, to identify the types and sources of dissemination of confidential information.

### Theme 1. The conceptual principles of the creative economy

#### 1.1. The role of the creative economy in the modern business environment

The modern development of the world system is characterized by a new stage, indicating the transition of developed economies to the post-industrial type based on the domination of knowledge, the sphere of services, intellectual work, the achievements of science and culture, innovations, global information systems and the latest technologies in business. At the moment, such countries as Great Britain, Luxembourg, Germany and China are keen to move to the stage of creative development, while Japan, the United States and South Korea are at this stage.

Creativity is now considered to be the property of organized systems of relations, rather than the characteristics of an individual, which is accompanied by the emergence of a new term – "creative economy". This concept was first introduced in 2000 in the Business Week magazine. The foundations include the work of the United Nations Consultative Council of Creative Economy, J. Hawkins, R. Florida and C. Landry. They consider creativity as a factor in creating a modern way of life and an attribute of the development of a new economy.

A creative economy should be considered systematically, in a broad sense. In this case, it acts as:

1) post-industrial economy, since the share of the service sector is increasing and begins to dominate, rather than the sphere of production;

2) information economy, because knowledge and science play a leading role in it as a factor of production; the role of creative work prevails;

3) innovative economy, since knowledge provides the opportunity to generate a continuous flow of innovations that meets the requirements of dynamically changing needs, and often forms them;

4) global network economy, since in the creative economy, the interaction between carriers of ideas is mediated by broad network communications on a global scale;

5) knowledge economy, as it increases the importance of human capital and investment in education and training.

The main difference between the creative economy and the traditional economic structure is that the main tool in it is knowledge, resource – information, and product – innovation. That is, the concept of a creative economy combines such discernible concepts as "information economy", "knowledge economy" and "innovation economy" [14, c. 21].

On the one hand, the creative economy can be seen as a component of an innovative economy. But the traditional understanding of the innovative economy focuses mainly on scientific and technological developments and their implementation and does not cover many spheres of the economy of creativity. The creative sector of the economy, in addition to activities in the field of scientific and technological developments, can be attributed to other activities that result in the creation of new products and services, are placed on the market and are objects of trade relations ("creative products and services") [85]. In the literature, the meaning of the terms "creative economy" and "innovation economy" has not been fully explained yet. For a similar reason, there is still no consensus, whether the economy of creativity is part of the knowledge economy (a knowledge-based economy). On the one hand, creative ideas are often associated with knowledge, are the basis of intellectual capital. On the other hand, in the literature, there are often theses, in which creativity and knowledge are divided, for example: "Creativity and knowledge are the basis of development of modern economy". An obvious reflection of such difficulties (not only terminological, but also conceptual) is the parallel use of the concepts of innovative economy, knowledge economy

and creative economy, and these terms are often used synonymously with the characterization of the new economy [15].

The concept of the economy of creativity essentially combines all economic areas in which the development of creative products and services, including the field of scientific and technological developments and their commercialization, is underlined by the use of the concept of innovative economy. It should be noted that the innovative activity of the company may be the result of not only those ideas and inventions that were produced by the employees of the same company ("internal"), but also based on "external" (borrowed) ideas (for example, acquired patents). But in any case, the innovative economy is based on the knowledge – "internal" or "freelance" for the organization, which is included in the innovation activity, that is, in the process of rotation of new ideas into a form suitable for production and the market.

Organizational knowledge is a set of beliefs, skills and abilities that are owned by the organization's employees and used by them in the development of solutions. Innovative economy in its habitual sense is based on the knowledge:

A) formalized (presented in the form of instructions, techniques, technologies, schemes, etc.);

B) protected by laws on intellectual property;

C) produced, as a rule, precise and natural sciences, as well as in the field of innovative management. However, any conscious activity of this century, not only economic, is based on knowledge. Thus, the notion of a knowledge economy becomes very broad and incomplete.

So, highlighting the peculiarities of the new economy we need to talk about the production of new knowledge as its foundation. And here it is quite logical to move to the concept of the economy of creativity (or creative economy) – an economy based on the production of new knowledge.

The creative economy covers the activities aimed at creating products and services oriented to the market, providing job creation and obtaining economic benefits (wealth) through the use of creative abilities. But creative abilities are an economic resource if they are expressed in the ideas that turn into a product demanded by the market, or ideas that will contribute to the promotion of existing products, enhance competitiveness, improve quality, etc.

In other words, "raw" ideas turn into knowledge and are included in the paradigm of individual, organizational or social behaviour, expanding and thus changing the existing knowledge [17]. In this sense, the creative economy seems to be spheres of activities that have the creative potential and intellectual capital as the main factor. These include, in particular: advertising, architecture and design, film production, book publishing, concert and entertainment business, software production, television, radio and other media, video and commercials, R & D, fashion industry, etc.

It is estimated that the US "creative class" in the early 2000s provided over 30 % of jobs (more than the entire scope of industrial production) and more than half the wages of all workers in the US (about \$ 2 trillion dollars) [48].

The analysis of the scale and dynamics of the creative economy can be based on traditional economic indicators: the proportion of GDP (contribution to the economy of creativity in GDP), employment and wages in the creative sector sales (including exports and imports), concentration of business in this sector, territorial distribution (creative and innovative clusters), and others.

However, the obvious difficulty of such analysis is as follows: employment in the creative sector cannot formally be taken into account, it is difficult to take into account the added value of creative products (the cost of materials for their creation may be negligible, and the price of sales is very high); in the systems of national statistics, not all fields related to the creative economy are taken into account (for example, the computer game industry is not individually displayed in the statistics of many countries); in trade, materials are mainly taken into account, not "creative" products (for example, diamonds, but not decorations, CDs, but not their content).

Of course, the results of the analysis of the creative economy will be significantly dependent on what areas of economic activity are taken into account. But no matter how the creative economy is defined and which areas of activity apply to it, it is quite obvious that this sector of the economy is growing very rapidly. Current research estimates the annual growth of the creative sector of the economy at 8.8 % on average over the last ten years (which is almost 2 times higher than the average world GDP growth) [38].

The WIPO (World Intellectual Property Organization) research methodology of the economy creativity, based on the account of the activities associated with the production of goods, copyright, shows the following results (Table 1.1) [57].



**The indicators of the creative sector of the economy in different countries**

Country	Contribution to GDP %	Employment in the creative sector, %
USA	11.12	8.49
Singapore	5.7	5.8
Canada	4.5	5.55
Latvia	4.0	4.5
Hungary	6.67	7.1
Philippines	4.92	11.1
Russia	6.06	7.3
Mexico	4.77	11.01
Croatia	4.42	4.23
Lebanon	4.75	4.49
Bulgaria	3.42	4.31

The creative sector is one of the fastest growing sectors in the global economy as a whole and in trade in particular. The growth rate of world exports of all services amounted to 12 % on average in 2000 – 2005, and the growth rate of export of many creative services was significantly higher, for example, 22 % in advertising and 19 % in architectural and design services. But most developing countries are significantly lagging behind in mobilizing their creative potential. For example, Africa accounts for less than 1 % of global exports of creative products, although relative growth is observed at about the same level as in developed countries. Exports of creative goods and services from developing countries grew from 29 % (1996) to 41 % (2005), with China accounting for 19 %. The share of developed countries is 58 %, of countries with transition economies it is 1 %.

If you look at the export of creative services separately, developed countries provide 82 %, developing countries 11 %, and countries with transition economies 7 %. The share of developed countries in the export of goods in the music and audio-video production sector is 90 %, in book publishing it is 80 %, with design accounting for 50 %.

Of course, creativity is not something completely new to the economy. One way or another, the products of creative activity have long been the subject of economic relations. Books have been written and sold, films have been made and transmitted under certain conditions to distributors, etc., but

such a significant contribution to the "general economy" has not been creative until recently.

The creative economy has become a leading component of the trade and the economic growth of developed countries, as well as the field in which their interaction and integration takes place, and is becoming an increasingly important factor in the development of transition economies.

## **1.2. The creative class as the "core" of the creative economy**

One of the first investigators who tried to assess the relationship between creativity and socio-economic development of the regions, determine its influence on the formation of a positive image of the territories, was American economist and sociologist R. Florida. He argues that creativity has long gone beyond the individual and now acts as the most important resource of the economy, since it enables you to combine business, culture and innovation. He also emphasizes that creativity, rather than information or knowledge, plays a key role in the modern process of socio-economic development [48].

R. Florida, in his work "The Creative Class", has analyzed the economic and political development of American society. He believes that the foundation of this society is a creative economy, and its social, political and economic core is the so-called creative class, which includes representatives of creative professions. According to R. Florida, creativity is the creation of knowledge based on new forms of practice; and the basis of the development of a creative economy is the principle of "Three Ts" of economic development: technology, talent and tolerance. Each of these indicators itself characterizes a certain level of development, but the main condition for the development of a creative economy is that only the presence of all three elements can attract the creative class and stimulate economic development [48, p. 23].

To determine the range of people the scientist classifies as a creative class, he offers his own structure of a modern society built on the basis of the degree of the use of creativity in the production process. As a result, in the structure of the creative class, he highlights the "supercreative core" and "creative professionals". The first includes professions related to programming, mathematics, architecture, engineering, professions in the field of natural and social sciences, librarianship, in the fields of art, design, entertain-

ment, sports and the media. The second group, according to R. Florida, includes professions in the field of business, finance, law and health, professions related to sales and sales management.

The main features of the representatives of the creative class are:

1) the content of labor activity is basically creative work that originates from creativity, unconventional, nontraditional, original thinking;

2) representatives of the creative class demonstrate individual identity, self-affirmation, openness;

3) in the creative class, personal abilities and merits are highly valued;

4) the creative class, by its activities, eliminates bureaucracy and technocracy;

5) representatives of the creative class earn money for their existence, creating and developing an innovative product on their own, while the representatives of the working and serving classes mainly perform work in accordance with the plans and tasks brought to them.

Studies by R. Florida confirm the dependence of regional development not only on the usual understanding of human capital, but also on the creative class. The main condition in this context is the interconnection of culture and art with regional development; and therefore a new standard for the assessment of such interrelations is being formed.

### **1.3. The features of modern development of creative industries**

The concept of creative industries originated in the UK. Since 1998, the development of creative industries has been a priority of British national politics, and in most cases, municipal policies. In recent years, this concept (and relevant practice) has spread very widely throughout the world and today it is one of the most popular innovative ideas that are relevant both to culture and the economy.

The official definition of creative industries adopted by the Department of Culture, Media and Sports of the Government of Great Britain is as follows: it is an activity based on an individual creative source, skill or talent, and which can create added value and jobs through the production and exploitation of intellectual property. Not limited to a single definition, the department also offers a list of specific activities of which the creative sector of the economy is composed. This list includes: advertising, architecture, artistic and antique market, crafts, design, fashion, film and video production,

programming, including the creation of entertaining interactive programs and computer games, music, performing arts, publishing, television, radio and the Internet [88; 89].

The development of creative industries plays a huge role in global economic and political change. While in the 1950s the US GDP was more than 50 % of the world GDP, today the US GDP is about 25 % of the world GDP. This is also due to the development of creative industries in such countries as India, China, Southeast Asia and Latin America.

The development of creative industries is supported at the level of state and municipal policies. In 1996, Hong Kong was the world leader in the production of creative products, when it was still a colony of Great Britain. Its exports grew from \$24.4 billion in 1996 to \$27.7 billion in 2005.

The North West Development Agency's special Northwest government policy is being developed in the Northwest Region of England, where large cities such as Liverpool and Manchester are located. It works in close cooperation with independent non-profit organizations that conduct specific work with creative clusters on the ground. For example, in Manchester, this is the Creative Industries Development Service. Similar independent agencies operate in other cities, including small ones.

The government of all levels supports the policy of developing creative industries, because it sees in it an effective way of economic development, creation of new jobs, solving social problems (especially in poor areas), as well as transformation of the urban space.

Indeed, as the well-known British urban development expert Charles Landry writes, creative entrepreneurs usually come to the poor, semi-destroyed, and generally "problematic" areas of the city, because property prices are substantially lower there. Their presence quickly ennobles the area: there are bustling streets and districts where new cafes and shops are opened, the buildings and city infrastructure are ordered. Gradually, such places become famous and popular not only among the artists themselves, but also among the general public. As a result, real estate prices are beginning to grow there, and more conservative companies come to the place of creative entrepreneurs. In the long run, this area is fully occupied by the establishment, and artists and creative entrepreneurs, as a battle group for the revival of cities, go further, developing new territories [58].

In recent years, the creative industries have been one of the priorities of economic development in the developed countries of Europe, America and

South-East Asia. While creative industries were originally an anti-crisis tool for Europe, the creative programs in Asia were "work to advance", a new leverage of influence and positioning on the world stage as leading contemporary states. It is part of the strategic development of countries and cities, an opportunity to improve the quality of life and human capital, and at the same time – the way of cultural expansion, the translation of its values and norms. The development of creative industries in Southeast Asia has been redeemed by the city authorities, the main strategy for their dissemination is the creation and support of creative clusters.

Being an innovative issue for Ukraine, the promotion of creative industries is associated with a number of problems and shortcomings. These are, above all, lack of:

- understanding of the importance of creative industries for the development of culture and creative economy;
- theoretical basis – the theme of creative industries practically is not raised or is not covered in works of modern culture and management;
- legislative framework, legal, financial and tax mechanisms for the support and development of creative industries;
- expert consultants on questions of culture as well as taxation, law, finance and management of such enterprises;
- lack of mechanisms for compliance and protection of copyright [30].

Against this backdrop of large-scale competition, Ukrainian cities face new challenges – how to attract talents, how to create a city space for the production of new ideas, innovations, stimulating not only leisure and consumption, but also creativity and creative business.

**Recommended literature:** [14 – 16; 30; 38; 48; 56 – 58; 88; 89].

## **Theme 2. The features of the formation of a creative economy in Ukraine and abroad**

### **2.1. Formation of creative society as a prerequisite for the development of a creative economy**

The leading countries of the world are fighting in the competition for talent. In the theory of innovation, at the end of the last century an

acceleration theory was formed [42]. A prerequisite for the emergence of this theory was, in particular, the rapid development of digital and nano-technology. It can be argued that in the early 80's of the 20th century the "era of information technology" began. This resulted from both the rapid growth of related businesses and the emergence of a number of problems, in particular, faster reduction of raw materials, environmental pollution, decreasing capacity of the environment for self-regulation. By now, many promising industries have reached the stage of maturity or completely disappeared.

The phases of inventions and innovations tend to accelerate. For example, 112 years had passed between the invention and the introduction into the production of photographic equipment, the phone took 56 years to gain popularity, and the pager had stayed in the communications market just four years before its total disappearance due to the proliferation of cellular systems. The closer to our time, the shorter the life cycle of the innovation.

As a result of the significant spread of innovations in all spheres of human life in the modern world, one can observe the tendency towards forming a so-called creative society in which new ideas and innovations play the main role.

One of the main tools of a creative society is creative thinking, which can be defined as the ability, through the analysis, combination and synthesis of heterogeneous elements, to create new meaningful knowledge and forms that have a significant socio-economic effect in various fields.

In a creative society, the creative potential of people is best revealed. It is possible to assume that the main objective of the existence and development of mankind is the maximum disclosure of creative abilities of people, and the change of social formations – these are the transition to a new, higher creative level. At the same time, everything that does not answer or interfere with this process is not viable, and it disappears.

In the structure of social wealth in a creative society, the share of non-economic components grows: science, education, health, ecology, human resources. The first place is the formation and development of human capital to ensure socio-economic development. In Germany, Sweden, Japan, the share of human capital reaches 80 % of national wealth [45].

The power of the community includes the ecological, political, scientific and technical, military and demographic components. Strength is needed to protect wealth, ensure the development and security of society and its citizens.

The development of society implies the innovative development of all its components: economy, politics, social sphere, branches, regions, enterprises, goods, services, technologies, business, science, technology, education, culture, art, etc. For the development of a creative society, the formation of a creative class plays the most important role. According to R. Florida [48], the advanced development of the USA in comparison with other countries is explained by the creative class formed in this country, the share of which in the late 90s was 30 % of the total number of employees. At the same time, the working class accounted for 25 %, and the servicemen amounted to 45 %.

The main characteristics of a creative society are as follows [48]:

1) systematic investment in creativity in the form of costs for innovation in various spheres (economy, science, technology, art, social sphere, politics, etc.);

2) growth of the practical return on the cost of innovation;

3) growth of the number of professionals engaged in creative work in various fields;

4) development of venture capital;

5) development of innovative infrastructures (technoparks, innovation-technology centers and complexes, innovative venture companies, business incubators).

In the scientific work [18] a creative system is defined as society as a whole and its elements – an economy, an enterprise, a firm, a collective and a person. The creativity of the system is described as its ability to create a new way of combining two or more heterogeneous elements in a new context in order to give the product (result) some additional value.

The non-recessive system has a final life cycle, while the creative one is qualitatively restored when circumstances require it; it can progress and improve to achieve its goals.

Entrepreneurship is one of the foundations of a creative society. Creativity is an inherent property of entrepreneurial activity. Creators of the theory of entrepreneurship J. Say, J. Schumpeter, P. Drucker singled out the innovative function of entrepreneurship, based on the combination of factors of production for the purpose of profit, by transferring resources from fields with low productivity and commitment into an area where they can give the greatest result.

It is through entrepreneurship millions of people are involved in creative activities in the market of goods and services, which provides the fastest and most effective development of the country. High efficiency of entrepreneurial activity at all stages of the cycle "marketing – purchase – production – sale" is achieved through the use of creative management methods [18].

In developed countries, small business is also the basis of the middle class, the development of which determines the level and quality of life of citizens of the country. The state plays a central role in a creative society. Public administration should be directed to the growth of wealth in all spheres and at all levels of society, including: states, regions, industries, enterprises, non-governmental organizations and citizens. The state should regulate innovation and educational processes to ensure the country's competitiveness in world markets, to finance fundamental research and development, which give results that cannot be found in the near future in the commercial sector, because the business cannot afford to fund the science in full.

The goals of state innovation policy are: the development of science, technology and education at the world level, increasing their contribution to the development of the country's economy, improving the country's competitiveness in world markets, improving the environment, etc. The main functions of the state in a creative society are the protection of freedom, personality and property; active support of entrepreneurship; the formation of an institutional environment conducive to the creation and dissemination of innovation.

In developed countries, the state plays a major role in creating a national innovation system and ensuring its effective functioning [17]. The state should ensure the creation and development of civil society, as public, economic and political institutions hinder or, conversely, contribute to the development of creativity in society. For example, Ancient China and the East at first were ahead of the West in economics, science and technology, but then they lagged behind with stagnation in the development of their socio-economic and political institutions. The most important indicator characterizing the country's creative potential is the Global Creativity Index which was calculated on the basis of three aspects proposed by R. Florida – talent, technology and tolerance. In this rating, Ukraine ranks 27th (with the index of talent in the 19th position). The first three performers are Sweden, Japan and Finland. This is a good result, considering that the main export sector of



Ukraine's economy is heavy industry. Such a high rank was obtained mainly due to the large share of the population with higher education.

With regard to the technology index – Ukraine ranks 28th. This indicates that the level of new developments in our country is much lower than the number of people who can potentially carry out these developments.

The lowest indicator is the level of tolerance. Ukraine ranked 33rd in this list, with the level of self-expression being 44th out of 45 countries. From the childhood we could hear: "I" is the last letter in the alphabet"; "Do not interrupt when elders say", etc. The characteristic of our society is the desire to direct the behavior of everyone according to a certain line of standards, while the creative society is characterized by completely different features. In Ukraine, in terms of tolerance there is one problem – the distance of power. The peculiarities of the Ukrainian model of management in the context of national mentality are determined by the features of the great power distance. Criticism of teachers in the presence of others, discussing their behavior is not accepted, communication is initiated solely by the teacher, and an intellectual discussion with the student can be perceived as disrespect. In our country collectivism prevails, and therefore, the goal of society is not the self-realization of each, but the achievement of consensus. The level of hierarchy is inversely proportional to the level of creativity of a society, and the hierarchy is felt on a permanent basis. In a domestic organization, moral values (respect, tolerant attitude toward the leader), rather than the creation of authority at the expense of specialty, play a more important role in relations. These factors belong to the national-cultural and psychological ones, they constitute our value orientations and beliefs. That is why changing the indicator of tolerance is extremely difficult [6].

In order to radically change the situation and increase the level of tolerance in our country, it is expedient to form a new, innovative approach in the system of education and upbringing, which in a creative society should be based on the principles of humanism, liberalism and democracy, and also provide training for specialists for the development and use of innovations in all spheres and at all stages of the innovation cycle "research – development – production – distribution – use" of innovations.

Consequently, the struggle for talented people continues in many countries, while Ukrainian scientists, managers and artists move to Europe, the United States and, more recently, to Asia. Thus, in order to slow down the negative tendencies in Ukraine, more attention should be paid to the

technological branches, as technologies are one of the factors of economic growth, as well as use of new approaches in the system of education and upbringing.

## **2.2. University as the basis for the development of a creative economy**

The national economy as a whole and its business entities in the post-industrial development era can achieve their goals and be successful if they have sufficient creative potential, which depends, first of all, on the quality of their intellectual resource. This resource is being developed and improved through public and private investment in education and special strategies. The dynamics of the development of market eco-labelling leads to the rapid emergence of new requirements for knowledge, skills taking into account socio-economic development of society. Therefore, in the creative economy, the role of a higher educational institution in shaping the intellectual resources of society is increasing.

The transition to innovative factors of development affects all elements of the economic system. For example, in an educational institution, there is a need for prompt response to changing economic and social needs of society, increasing economic efficiency and close cooperation with various market players, including state and regional authorities, business structures, etc.

The need to bring educational standards closer to the needs of the employer and society, as well as to improve the quality of education at all levels, is becoming a new challenge for the education system. This requires that educational institutions carry out a mission of creating innovative training programs, formulating proposals for updating educational standards, and implementing reforms in the management of the educational functional system in order to improve the quality of education and increase the level of competence, knowledge of graduates of educational institutions [32].

The intellectual resource of an enterprise is formed not only on the basis of attraction of young specialists with higher education, trained on the basis of these developed programs, adapted to changes in the needs of the economy, but also on the basis of improvement of knowledge and skills of the already working personnel in order to ensure high competitiveness of the enterprise.

The transition to a creative economy determines changes in society in the field of education both in terms of macro level and personality – a participant in the educational process. The system of continuous education in the knowledge economy suggests that modern enterprise personnel should be included in the continuous cycle of training, advanced training and retraining throughout the active life [21].

The goal of continuous training of the individual is advisable to be solved by integrating innovative teaching methods into the practical activities of the organization based on its cooperation or partnership with educational institutions. Such integration will allow for the creation of innovative training programs that reflect the processes of commercialization of scientific and technological advances that take place at enterprises in different sectors of the economy.

In this regard, the priority task of educational institutions will be to increase their participation in the socio-economic development of the regions, to strengthen the regional ties of educational institutions with industry, business, science, including the implementation of projects for the creation of research and production centers, professional qualifications and so on [9]. Educational institutions, together with industry and business as well as other stakeholders, should develop practical guidelines, techniques and programs specifically for training staff, and create opportunities for sharing experiences and best practices.

In the creative economy, the role of competences of staff increases not only in the areas of scientific research, design and technological development, logistics, but also in such special areas as managerial accounting, budgeting, financial diagnostics, marketing, creation of a quality management system, etc. Therefore, in the period of transition to the innovation economy, it is important for educational institutions to provide a wide range of programs that would allow them to acquire and improve their knowledge, as well as to acquire practical skills in various fields of economy and management. This is necessary in order to harmonize the requirements of the market economy, enterprises and the sphere of education, which will make it possible to continuously update the training programs and achieve the necessary results of vocational education.

### **2.3. The features of the development of creative economy in Ukraine**

Currently, the concept of creative economy is often identified with the notion of knowledge economy. In this case, it is a special sector of the economy, based, above all, on various types of intellectual work [44]. Such an interpretation is fair only to a certain extent. At the same time, according to leading domestic and foreign authors, it is not enough to restrict the creative economy only to the given sign [87].

Among other features of the creative economy, a number of authors rightly refer to so-called creative thinking, creative design, that have a practical orientation. At the same time, it should be noted that the creative economy, based on intellectual work, a creative approach, takes place not only in socially oriented and socially significant spheres of activity. Its apparent manifestation (as the generation and implementation of non-standard ideas) is increasingly observed in expanding the scope of shadow, corruption, and criminal socio-economic processes. Most clearly, these processes have been recently manifested in scientific, educational, innovation, healthcare, construction, housing and communal services, migration, ecology and other areas of socio-economic development [87].

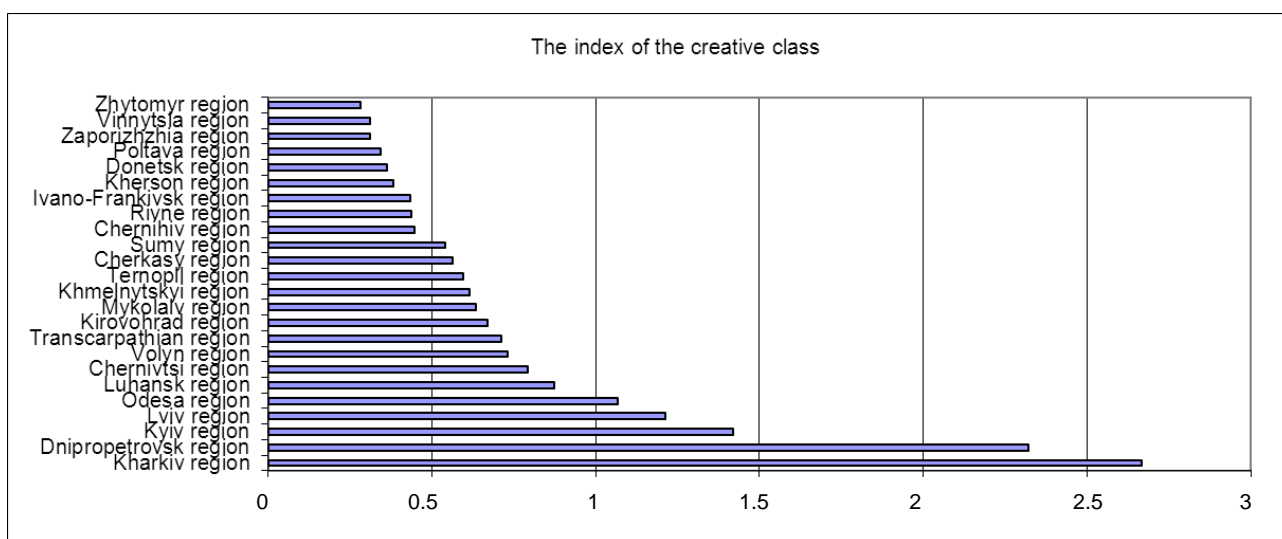
Thus, the creative economy is a set of specific socio-economic relations that arise in relation to production, distribution, exchange and consumption, based on nonstandard, nontraditional ideas, concepts, strategies, measures that will ensure the effective resolution of socio-economic problems on the basis of new knowledge, fundamentally new qualitative solutions [87]. As an integral value that characterizes the economy's level of creativity of different countries, R. Florida proposed the Global Creativity Index which was calculated on the basis of three aspects – technology, talent and tolerance [48, p. 63].

The low values of the indices of talent, technology and tolerance in this method show that there are reserves of development of the level of creativity in the economy of our country in order to be competitive in the international market of goods and services. Significant reserves of the awakening of the creative activity and innovation of the local community are in regional and municipal tools for supporting small and medium-sized businesses, the formation of intellectual territories, the improvement of human capital, the promotion of cultural and spiritual diversity and the stimulation of creative activity of the local community. However, the creative and innovative potential

in the regions of Ukraine is quite different, which makes it expedient to analyze Ukraine's regions based on the main indicators of creativity proposed by R. Florida. This analysis will reveal the regions of Ukraine with high creative potential, and the hidden reserves of economic growth.

Direct transfer of R. Florida's methodology to the study of the domestic regions based on the level of creativity is impossible, since monitoring of a number of key indicators (the level of tolerance of regional communities, the possibility of self-expression, etc.) is not conducted in Ukraine. There is a problem of compatibility of international indicators and those that are tracked in Ukraine (for example, the number of people employed in creative areas of activity). The authors proposed new indicators that, in the author's opinion, reflect the Ukrainian realities more realistically than the indicators proposed by R. Florida and which are used for statistical recording.

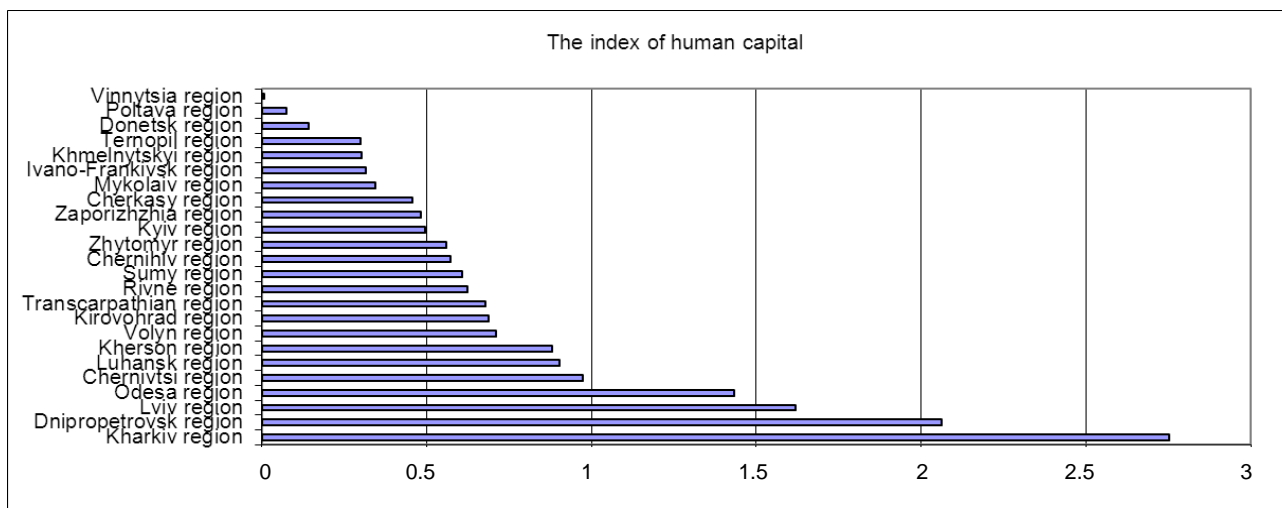
Thus, the consolidated index of talent represents the average arithmetic indexes of the creative class, human capital and scientific talent. Let's analyze in more detail each of these indices. Florida attributes the following to the creative economy industry [48, p. 58]: R & D, publishing, software, television and radio, design, music, cinema, games, advertising, architecture, performing arts, fashion. In Ukraine, there is a record of the number of people employed from the listed industries only in the following areas: professional and scientific activity; information and telecommunications; art, sports, entertainment and recreation. The number of employed workers in these types of economic activity was the basis for calculating the index of the creative class (Fig. 2.1) [19].



**Fig. 2.1. The distribution of the regions of Ukraine based on the index of the creative class**

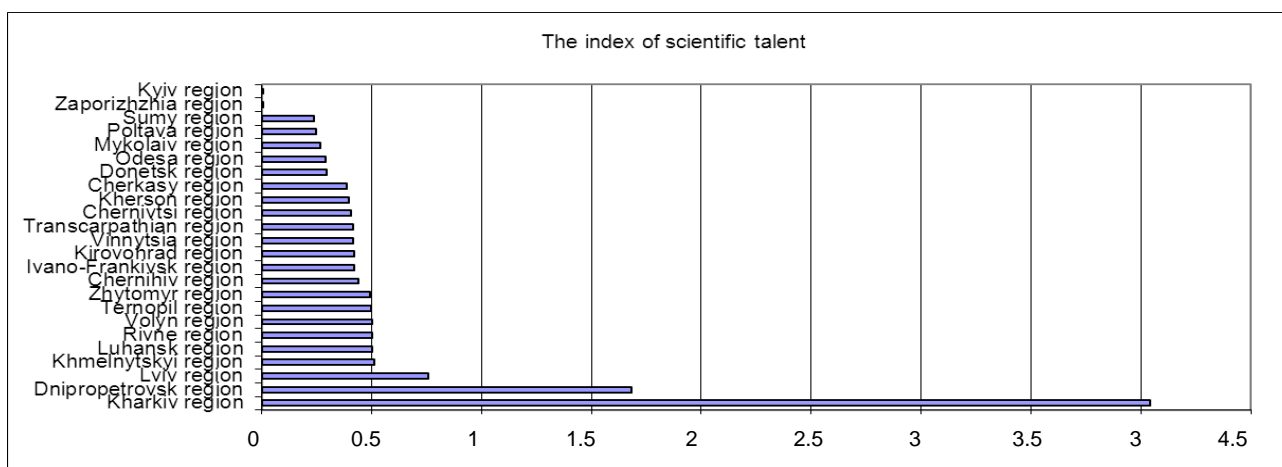
The leading regions according to the index of the creative class (Kharkiv, Dnipropetrovsk, Kyiv, Lviv and Odesa regions) have a diversified structure of the economy with a high level of development of the service sector, as well as a large number of educational institutions and universities, where the majority of representatives of the creative class are concentrated.

According to the Florida methodology, the index of human capital was calculated as the proportion of employed people who have completed higher and basic higher education (Fig. 2.2).



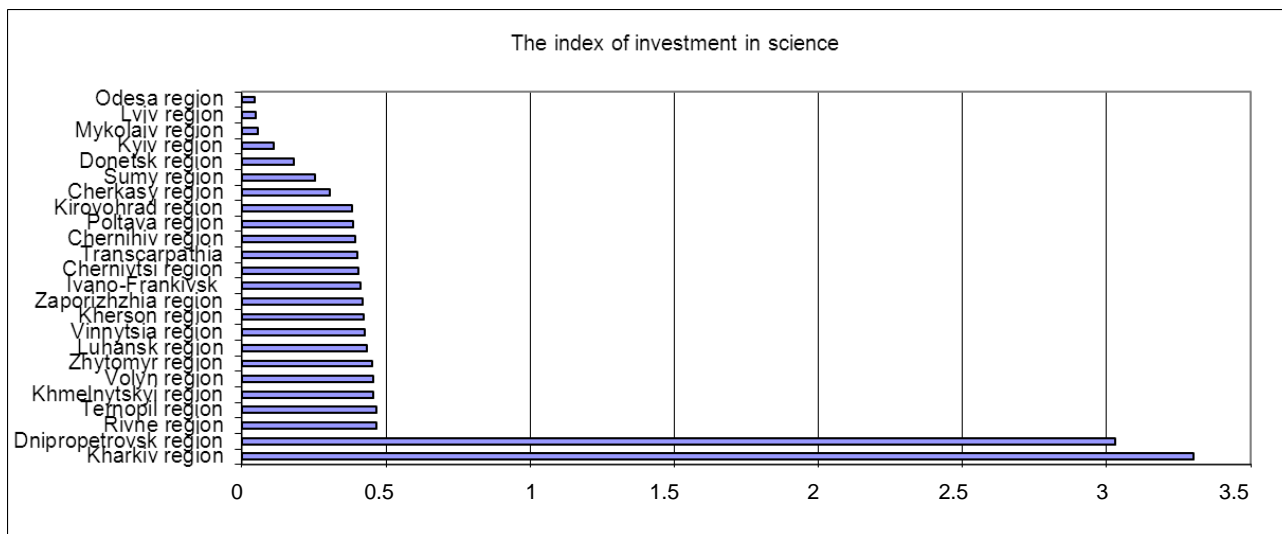
**Fig. 2.2. The distribution of the regions of Ukraine based on the index of human capital**

The index of scientific talent was calculated as the number of researchers working in the region. The undisputed leader in the rating of scientific talent is the Kharkiv region, with Dnipropetrovsk ranking second, and Lviv region being the third (Fig. 2.3).



**Fig. 2.3. The distribution of the regions of Ukraine based on the index of scientific talent**

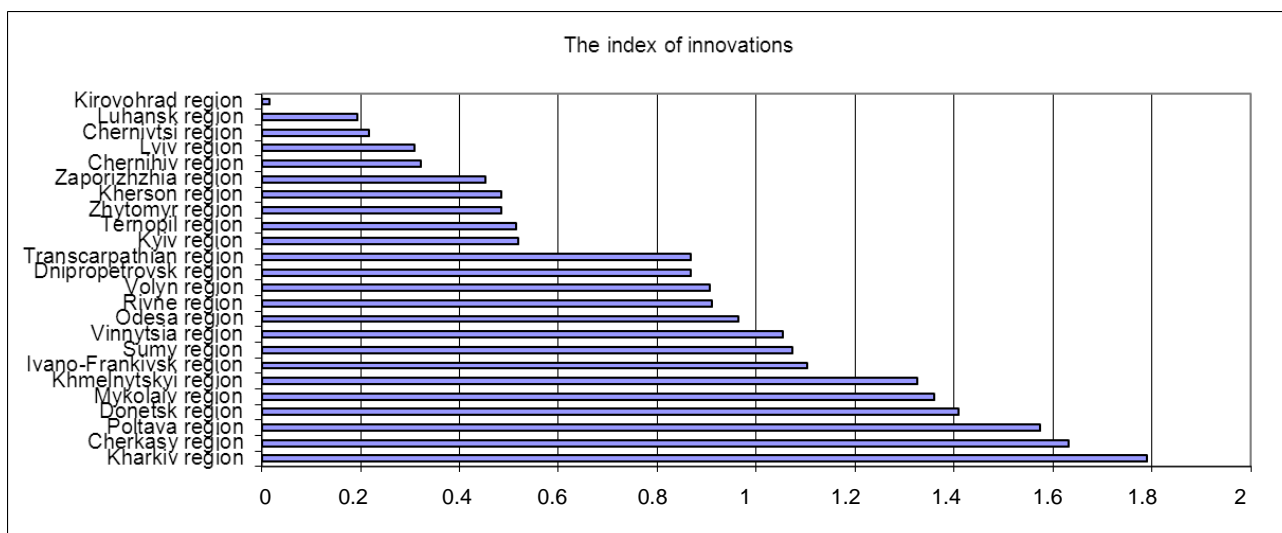
The consolidated technology index is an average arithmetic mean of investment in science and the index of innovation. The first was calculated as gross expenses for the execution of scientific work (Fig. 2.4).



**Fig. 2.4. The distribution of the regions of Ukraine based on the index of investment in science**

This indicator is commonly used to measure the knowledge intensity of national economies and is actively used in international analytical comparisons conducted by the European Union.

The basis for calculating the innovation index is the total index of innovations calculated according to the methodology for calculating the total index of innovations, approved by the order of the State Statistics Committee and presented in the statistical collection "Scientific and Innovative Activities of Ukraine" (Fig. 2.5) [36].

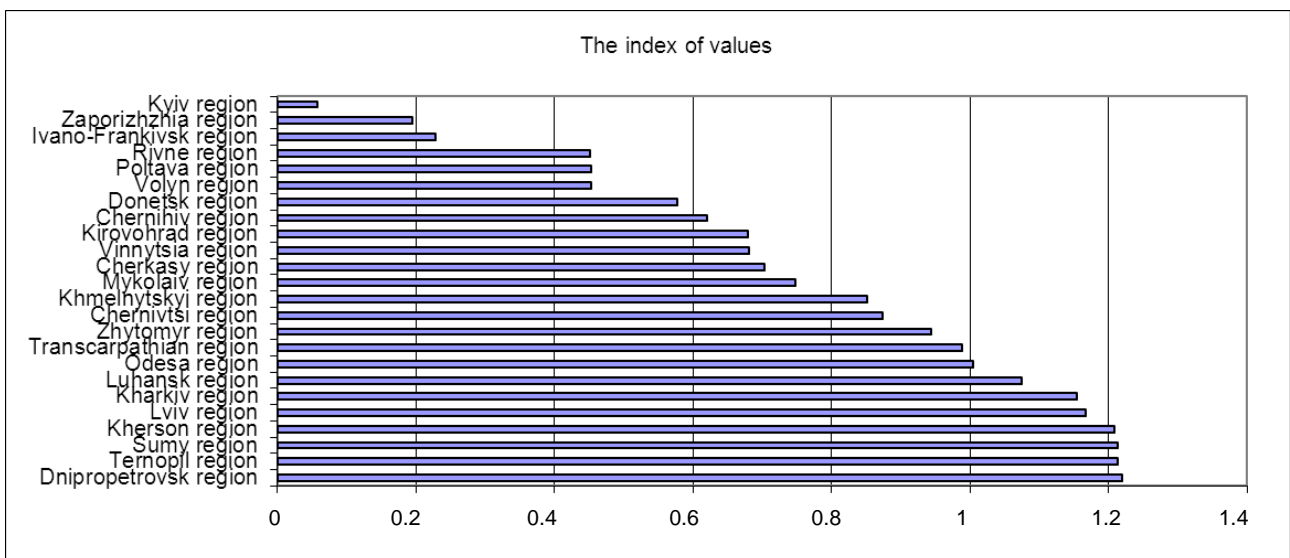


**Fig. 2.5. The distribution of the regions of Ukraine based on the index of innovations**

The tolerance index, according to the method of R. Florida, integrates two indicators: the index of values and the index of self-expression. The former shows the degree of confrontation between traditional and contemporary societies, the willingness of the community to accept new ideas; the latter is the quality of life, democratic society, tolerance for migrants, national minorities, etc.

Monitoring of these indicators is not conducted in Ukraine in the regional context. That is why the authors proposed the following indicators, as a basis for the calculation of the index of values:

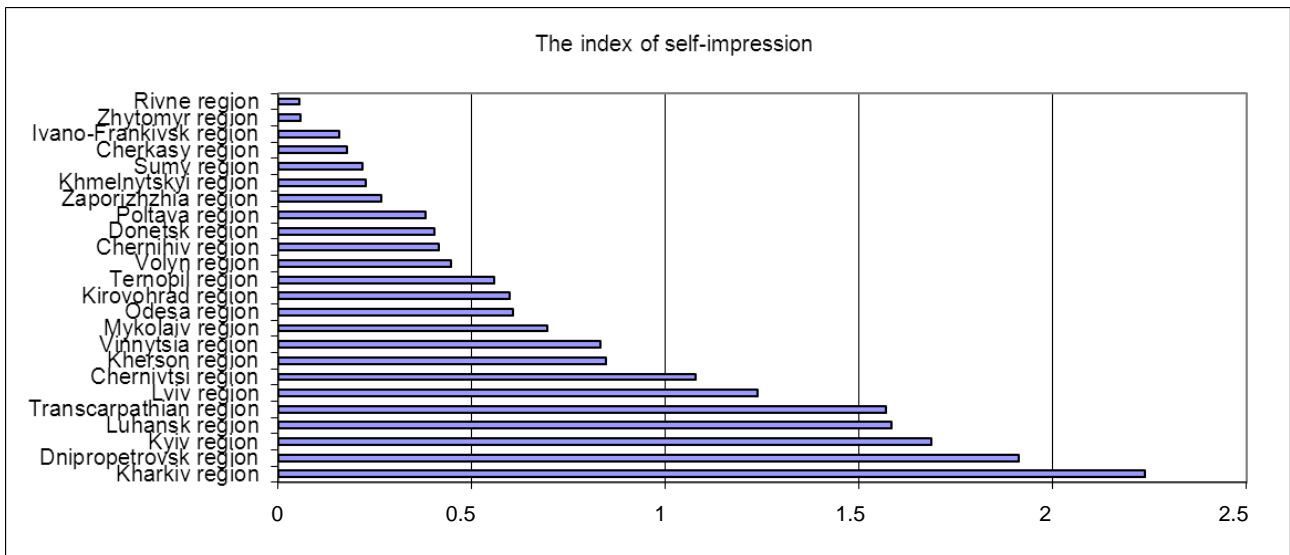
- the ratio of the period of searching for work by women and men which characterizes the issue of gender equality on the domestic labor market;
- the number of registered collective agreements which characterizes the degree of implementation of social partnership relations at domestic enterprises (Fig. 2.6).



**Fig. 2.6. The distribution of the regions of Ukraine based on the index of values**

As a basis for calculating the self-expression index, the authors selected the number of migrants arriving in one region or another, based on the hypothesis that the most open and tolerant territories involve more foreign migrants (from other regions of the country and from abroad), which was proposed by A. Pilyasov and O. Kolesnikova (Fig. 2.7) [39].





**Fig. 2.7. The distribution of the regions of Ukraine based on the index of self-expression**

The calculated consolidated indices of talent, technology and tolerance were the basis of the cluster analysis of the regions of Ukraine according to the level of creativity, the results of which are presented in Table. 2.1.

Table 2.1

**The distribution of the regions of Ukraine according to the indicators of creativity**

Cluster	Region	Characteristic features
1	2	3
First cluster	Kharkiv region Dnipropetrovsk region	Characterized by the highest indices of tolerance, talent and technology, regions of leadership in terms of creativity
Second cluster	Transcarpathian region Luhansk region Lviv region Odesa region Chernivtsi region	Characterized by an average and high level of talent and tolerance indices respectively and a low level of the technology index
Third cluster	Zhytomyr region Poltava region Sumy region Kherson region Khmelnytskyi region Cherkasy region	Low levels of tolerance and talent indices and the average level of the technology index

Table 2.1 (the end)

1	2	3
Fourth cluster	Vinnytsia region Volyn region Donetsk region Zaporizhzhia region Ivano-Frankivsk region Kyiv region Kirovohrad region Mykolaiv region Rivne region Ternopil region Chernihiv region	The lowest levels of all indices, regions-outside as to the level of creativity

Thus, the first cluster included the regions that are large scientific and educational centers with long university traditions. In these regions a large number of talented young people are concentrated, who, after graduating from higher education institutions, are most often employed in so-called creative industries. In addition, a large number of higher education institutions make significant financial investments in research in these regions. The second cluster includes regions that are characterized by a high level of tolerance and the relative weight of the creative class. The high creative potential of these regions is ensured by the positive characteristics of local communities, but so far weakly supported by real innovative activity. The third cluster is represented by regions with rather unfavorable conditions for the development of a creative environment, high values of investment in research and technology. This cluster includes agro-oriented regions. It is this cluster that has a high potential for creative development. The fourth cluster includes outsiders of the rankings of creativity. They are basically so-called old industrial regions, in which the industrial giants created in the Soviet times are still playing an important role. In inter-organizational interaction, such regions are dominated by vertical contracts. The share of small business in the local economy is negligible. Qualified, creative personnel move massively from these areas to neighboring and central regions with a less rigidly organized production activity and a more diverse cultural environment.

To overcome a very strong inertia of development characteristic of the old industrial regions, long-term efforts of the state, business and civil society

institutions are needed. Quite often, as shown by foreign experience, the creative energy of the local community first awakens in the period of restructuring of old industrial zones, industrial sites, abandoned mines and quarries, with simultaneous search for new forms of the use of these facilities for recreational and leisure purposes.

Only a third of Ukrainian regions have high values of creative development in accordance to the methodology proposed by R. Florida. The development of the creative potential of the domestic economy becomes a priority task in view of the peculiarities of international economic competition, where the key position belongs to the creative US economy, whose income is 960 billion dollars which exceeds 40 % of the total income. Innovative breakthroughs are those manifested by regions and countries in which cultural diversity rests on the solid foundation of effective institutions and strong local authorities.

**Recommended literature:** [2; 6; 9; 17; 18 – 21; 32; 36; 39; 42; 44; 45; 48; 87].

### **Theme 3. Protection of intellectual property rights in the creative economy**

#### **3.1. The concepts and types of confidential information**

Intellectual resources as one of the main components of creative potential, under the influence of purposeful or collective efforts, tend to turn into technological information. As a result of its commercialization, intellectual property arises, the objects of which (ownership rights to the results of creative mental activity) are the tools of formation of transfer relations between the subjects of the system of creative management. Intellectual property as a mechanism for realizing economic interests of the subjects of the system of creative development involves the transfer of property rights through licensing, sale or gift.

V. Bazylevych and V. Ilin point out that under the conditions of comprehensive intellectualization of the economy, information and knowledge are becoming the driving force behind innovation; creative mental activity becomes a priority strategic activity, and the problems of stimulation and protection of intellectual property become the priority both for individual states and the world community as a whole [1, p. 12]. The authors also note that

international technology transfer in the form of sales of intellectual property, licensing agreements, science and technology-intensive services within the framework of engineering and consulting is transforming, under present conditions, into a promising and efficient means of increasing incomes and conquering new markets [1, p. 15].

Information security is the principle of building a system of creative enterprise management. It is implemented through the definition of confidential managerial information, prediction of possible sources of disclosure, leakage and unauthorized access to information, the formation of a system of measures for the protection of information, in particular, that which is intellectual property. Information security is one of the qualitative characteristics of creative management systems. It shows the actual and potential level of protection of confidential managerial information from disclosure, leakage, and unauthorized access.

In terms of access to information, it is expedient to provide confidential, publicly accessible information, and information with restricted access. The information should be considered confidential if access to it can be provided for all employees of the enterprise if it is not disclosed. Restricted information is a part of the confidential information accessed by a limited number of people. Information the use of which is not regulated is publicly available [25].

Table 3.1 shows the types of confidential information at the enterprise.

Table 3.1

**The types of confidential information [1; 10 – 12; 62; 64; 65; 77]**

Scientific and technical information	Production information	Financial information
1	2	3
<ul style="list-style-type: none"> <li>• the nature of research work;</li> <li>• the content of patents and licenses;</li> <li>• the content of innovative proposals;</li> <li>• the plans for the introduction of new technologies and products;</li> </ul>	<ul style="list-style-type: none"> <li>• the production technology;</li> <li>• the volume of production and sales plans;</li> <li>• the level of warehouse reserves;</li> <li>• the investment plans for new construction and reconstruction of production;</li> <li>• the methods and organization of management;</li> </ul>	<ul style="list-style-type: none"> <li>• the capital structure;</li> <li>• the size of profit and the cost of production;</li> <li>• the mechanism of formation of prices for products;</li> <li>• information about banking and trading operations;</li> </ul>

Table 3.1 (the end)

1	2	3
<ul style="list-style-type: none"> <li>• analysis of the competitiveness of products manufactured by the company</li> </ul>	<ul style="list-style-type: none"> <li>• the system of organization of work;</li> <li>• plans of advertising activity;</li> <li>• the forecasted time to enter the market;</li> <li>• the nature and conditions of the contracts;</li> <li>• information about suppliers, consumers, intermediaries, competitors</li> </ul>	<ul style="list-style-type: none"> <li>• the amount of funds turnover;</li> <li>• the status of settlements with trade clients;</li> <li>• the level of solvency of the enterprise;</li> <li>• the actual state of the markets;</li> <li>• information about the export and import efficiency;</li> <li>• information about the financial status of suppliers, intermediaries, competitors, etc.</li> </ul>

According to specialists, the resources constituting confidential information and subject to protection must meet the following criteria [1; 10 – 12; 62; 64; 65; 77]: their open use is associated with losses for the enterprise; they are not well-known or publicly available on legal grounds; the enterprise may take appropriate measures to maintain their confidentiality in view of economic and other benefits; this information needs protection because it does not contain state secrets and is not protected by copyright or patent law; concealing this information does not harm the society.

The confidential category should not include information contained in: constituent documents; documents that give the right to engage in entrepreneurial activity (registration certificates, licenses, patents); financial reporting; solvency instruments; documents on payment of taxes and other mandatory payments to the budget. Non-confidential information is also that about: the size, the composition of wages, working conditions and the availability of jobs, environmental pollution, violation of antitrust laws, failure to provide safe working conditions, the sale of products harmful to health and other violations of law and the amount of damage.

### **3.2. The sources of distribution and ways of protection of confidential information at enterprises**

As practice shows, in the competitive struggle, actions aiming to obtain confidential information in a variety of ways are common. As V. Yarochkin notes, potential or real possible actions concerning informational resources, which lead to the wrongful possession of protected information, should be considered as threat to confidential information. Such actions are: familiarization with confidential information in various ways and methods without violating its integrity; destruction of information as an act of vandalism in order to directly deal with material damage. As a result, unlawful actions with information lead to violation of its confidentiality, completeness, reliability and availability, which, in turn, worsens the quality of the management process under conditions of incomplete or misleading information [55, p. 18].

As practice shows, the object of managing the threat to confidential information may be internal (occurring inside the object) and external (which arises outside the object).

The sources of internal threats are: administration of enterprises, personnel, technical means of production and labor, while external threats include unscrupulous competitors, criminal groups and formations, individuals or organizations of administrative and management apparatus. In the practice of enterprises, about 82 % of the threats originate from the employees of the enterprise because of their direct or indirect participation, 17 % of the threats are external, 1 % of the threats result from casualties [10; 11; 55; 65].

The study of literary sources makes it possible to distinguish the following actions that lead to the unlawful seizure of company confidential information: disclosure of information, information flow, unauthorized access to information.

Disclosure is an abusive or negligent action with respect to confidential information, which leads to the fact that people admitted to it get familiarized with the information [10; 11; 55]. Disclosure is expressed in the communication, transmission, provision, forwarding, publication, loss and other forms of exchange and action with respect to information. As a rule, the reason for disclosure of information is that: employees of an enterprise are not well aware of the rules of protection of commercial secrets, do not understand the need for strict observance of confidentiality, do not realize the need for information security; there are no control systems and penalties for

disclosure of confidential information at the enterprise. The subject in this process is the source (owner) of the information that is protected. If disclosure of confidential information happened, it is necessary to analyze the distribution channels, the methods and means of termination of disclosure.

Leakage is the uncontrolled release of confidential information outside the organization or the circle of persons whom it was entrusted [55, p. 24]. In the case of the leakage of confidential information, as in the case of disclosure, it is necessary to investigate the channels of leakage, the methods and means of protection against leakage. The study of literary sources makes it possible to distinguish sources and channels of the flow of confidential information (Table 3.2).

Table 3.2

**The sources and channels of leakage of confidential information**

The sources of leakage of confidential information	The channels of leakage of confidential information
<ul style="list-style-type: none"> <li>• managers and staff of the enterprise;</li> <li>• professionals involved in the contract work;</li> <li>• representatives of state authorities;</li> <li>• representatives of law enforcement agencies;</li> <li>• employees of non-state structures working with the enterprise on contractual terms;</li> <li>• competitor companies, which carry out purposeful gathering of information;</li> <li>• internal documentation of the enterprise on various carriers;</li> <li>• samples of new products and materials;</li> <li>• computer processing facilities;</li> <li>• means of communication used by employees of the enterprise</li> </ul>	<ul style="list-style-type: none"> <li>• oral presentations and open publications of managers and employees of the enterprise;</li> <li>• visiting enterprises by representatives of organizations and various media;</li> <li>• promotional events, conferences, business negotiations conducted by the company;</li> <li>• data of commodity and stock exchanges;</li> <li>• exhibits of fairs, exhibitions, presentations;</li> <li>• vacancy announcements;</li> <li>• the abduction of samples of new products and materials;</li> <li>• part-time work of employees of the enterprise in other organizations;</li> <li>• mandatory publication of information provided by the legislation on the activities of the enterprise</li> </ul>

Note that the channel of information leakage is physical path from the source of confidential information to the intruder, through which the latter can access the information that is protected.

Unauthorized access is the unlawful deliberate capture of confidential information by a person who does not have access to it [55, p. 24–25]. To prevent from unauthorized access to confidential information it is necessary to pay attention to channels of penetration, methods and means of counter-acting unauthorized access to information.

In the practical activity of foreign intelligence services, the ratio of unauthorized access to sources of confidential information is as follows: bribery, blackmail, retaliation of employees, agent exile account for 43 %, listening to telephone conversations makes 5 %, theft of documents amounts to 10 %, the share of penetration into the computer network is 13 % [25].

As practice shows, the company can legally get 90 – 95 % of all the necessary information. The rest of the information is obtained through industrial espionage, in 47 % of cases using technical means of industrial espionage. Everyday reality points to close interweaving in the activities of competing companies, legal and illegal methods of obtaining information against each other (Table 3.3) [25].

Table 3.3

### The methods of obtaining information about competitors

Legal methods	Illegal methods
1	2
<ul style="list-style-type: none"> <li>• analysis of information about the company which is contained in specialized open sources;</li> <li>• analysis of information about the company transmitted by the mass media;</li> <li>• "apparent" negotiations on hiring employees of competing firms;</li> <li>• actual recruitment of employees of competing enterprises;</li> <li>• false negotiations with the current competitor about the intentions of business cooperation;</li> </ul>	<ul style="list-style-type: none"> <li>• theft of documents containing confidential information;</li> <li>• the abduction of samples of new products and materials;</li> <li>• blackmailing employees of the competitor, who have access to confidential information;</li> <li>• listening to conversations;</li> <li>• shooting and optical observations;</li> <li>• unauthorized connection to communication systems and computer networks;</li> <li>• sending and recruiting agents</li> </ul>



Table 3.3 (the end)

1	2
<ul style="list-style-type: none"> <li>• establishment of business relations with partners of the competitor for indirect reception of information from third parties;</li> <li>• masked polls of competitors' employees at conferences, seminars, etc.;</li> <li>• research of products of competing companies with the help of back engineering</li> </ul>	

Providing information security cannot be a one-time act. This is a continuous process of realization of the most rigorous methods and ways of improvement and development of the system of protection, control of its state, the identification of its weaknesses and unlawful actions. Information security can be ensured only with the integrated use of the entire arsenal of protection in all structural subdivisions of the enterprise and at all stages of the technological cycle of information processing. The greatest effect is achieved when all means, methods and measures are united into a single integral mechanism – the information security system (ISS). The functioning of the system should be monitored, updated and evolved depending on changes in external and internal conditions. No ISS can provide the necessary level of information security without proper training of users and complying with all established rules aiming to protect it [55, p. 8].

Thus, the information security system is an organized set of special organs, means, methods and measures that provide protection of information from internal and external threats [55, p. 14].

From the point of view of the systemic approach to information security there are certain requirements. Information protection should be: continuous, planned, purposeful, concrete, active, reliable, universal, complex. Continuity is the continuous functioning, improvement and development of the ISS. Planning is ensured by the development of detailed plans for the protection of information by each structural subdivision within its competence, taking into account the general purpose of the enterprise. Purposefulness presupposes the protection of what needs to be protected in the interests of a specific

purpose. Specificity is the protection of data, the loss of which may cause certain damage to the company. Activity is aimed at protecting information with sufficient level of perseverance. Methods and forms of protection should reliably overcome possible ways of unauthorized access to information. Versatility lies in the fact that, regardless of the type, nature and purpose of information, it must be protected by available means and possible methods and measures. Complexity involves protecting the information of each structural unit and the enterprise in general with a set of available means and possible methods and measures.

The components of the system of protection of confidential information of the enterprise are: a regulated list of information constituting confidential information of the enterprise, a system of accounting and protection of new materials and products, the system of protection of the territory of the enterprise, its buildings and structures, a system for monitoring the visit of the company by third parties, containing confidential information, the system of control over means of copying and reproduction of documents, the procedure for the protection of information in the means of communication and control, the procedure for the use of open communication channels during the transmission of confidential information, etc.

### **3.3. The regulatory and legal framework for the protection of confidential information and intellectual property**

Intellectual property protection is an instrument of legal and economic regulation of inventions, since it allows you to retain ownership and profit from inventions or innovations. The system of protection provides:

- legal protection of intellectual property;
- development of the patent system;
- organization of national competitions of invention and innovation, etc. [69].

Stimulation of inventive activity should be carried out at macro, meso- and micro-levels of management. At the state level, the policy for promoting invention and innovation in the country is being formed. To this end, they adopt the relevant laws, develop comprehensive programs, incentive methods. Science is one of the decisive factors in the development of the material and spiritual life of human society, the basis of the latest

technologies in all spheres of human activity of contemporary and future generations.

Legal regulation of intellectual property plays a very important role because it should protect and stimulate the development of intellectual potential of the country. Measures to protect copyright are also being implemented at the international level, where most countries are governed by the rules of the World Intellectual Property Organization (WIPO). In Europe, the organization of inventive (innovative) activity, in fact, has already become the prerogative of the European Union, which indicates the extraordinary urgency of the problem. Since 1996, the plan of measures in the field of innovations has come into force and the European Commission has approved recommendations on the protection of intellectual property, the effectiveness of the patent system, in particular copyright in the information field, the expansion of patent protection in biotechnology. In addition, measures are envisaged to increase the mobility of scientific personnel, new organizational forms of education and professional training. Currently, in the world, including Ukraine, there are three main types of protection of intellectual property:

- patents that stipulate for the author the right to invention;
- copyright, which applies to works in the field of science, literature and art;
- a trademark for manufactured products of enterprises [43].

A document certifying authorship and giving to its owner the exclusive right to an invention is a patent. It may be supported by an industrial design or trademark registration. The consent for the use of an invention is realized through the issuance (sale) of a license for the partial or full use of patent rights. Copyright envisages the exclusive right of the author of scientific, technical, artistic and other inventions to reproduce and sell them.

In particular, according to Art. 176 of the Criminal Code, criminal liability is imposed on persons, who are guilty of such violation of copyright and related rights as illegal reproduction, distribution of works of science, literature and art, computer programs and databases, as well as illegal reproduction, distribution of performances, phonograms, videograms and broadcasting programs, their illegal replication and distribution on audio and video cassettes, floppy disks, other media, or other intentional violation of copyright and related rights, if it caused material damage to a large extent [83].

Art. 177 of the Criminal Code of Ukraine recognizes criminal violation of the rights to an invention, a utility model, industrial design, topographies of the integrated circuit, plant variety, a rationalization proposal if it caused material damage to a large extent [83].

Regarding administrative and legal protection of intellectual property rights, Art. 51 of the Code on Administrative Offenses of Ukraine recognizes the violation of rights to an intellectual property object as an unlawful use of the object of intellectual property right, assignment of authorship to such object or other intentional violation of rights to an object of intellectual property right which is protected by law [27].

Civil law protection of intellectual property rights, first of all, can be carried out by a court. Each person has the right to appeal to the court for the protection of his intellectual property rights.

The court, in cases and in the manner prescribed by law, may decide, in particular:

1) the application of immediate measures to prevent the violation of intellectual property rights and preserve relevant evidence;

2) stopping of the passage through the customs border of Ukraine of goods the import or export of which is carried out in violation of the right of intellectual property;

3) removal from the civil circulation of goods manufactured or introduced into civil circulation in violation of intellectual property rights;

4) removal from civil circulation of materials and tools used mainly for the manufacture of goods in violation of intellectual property rights;

5) application of one-time money collection instead of indemnification for the unlawful use of the object of intellectual property rights. The amount of the penalty is determined in accordance with the law, taking into account the fault of the person and other circumstances of significant importance;

6) publication, in the mass media, of information about the violation of intellectual property rights and the content of the court decision on such violation.

In accordance with the Law of Ukraine "On Copyright and Related Rights" the violation of copyright and (or) related rights that provides grounds for judicial protection include, for example: a) the commission of any actions that violate the personal non-property rights of the sub-objects of copyright

and (or) related rights, and their property rights; b) piracy in the field of copyright and (or) related rights – publication, reproduction, import into the customs territory of Ukraine, export from the customs territory of Ukraine and distribution of counterfeit copies of works (including computer programs and databases), phonograms, videograms and broadcasting organizations; c) plagiarism – the disclosure (publication), in whole or in part, of someone else's work under the name of a person who is not the author of this work and a number of other violations [86].

In case of violation by any person of copyright and (or) related rights, the person whose right is violated is entitled to:

1) demand recognition and renewal of their rights, including the prohibition of actions that violate copyright law and/or related rights or create a threat to their violation;

2) apply to the court with a suit on the restoration of violated rights and (or) termination of actions that violate copyright law and/or related rights or threaten their violation;

3) sue for compensation for moral (non-property) damage;

4) sue for damage (property damage), including lost profits, or collection of income received by the offender as a result of violation of his copyright and (or) related rights, or payment of compensation;

5) demand the suspension of preparatory actions to violate the copyright and (or) related rights, including suspension of customs procedures in accordance with the procedure provided for by the Customs Code of Ukraine, if there is a suspicion that counterfeit copies of works, phonograms, videograms, means of circumvention of technical means of protection may be let pass in the customs territory of Ukraine or from its customs territory;

6) participate in the inspection of industrial premises, warehouses, technological processes and business operations related to the production of copies of works, phonograms and videograms with respect to which there are grounds for suspicion of violation or threat of infringement of copyright and (or) related rights, in the order established by the Criminal Code of Ukraine;

7) demand, including in court, publication in the mass media of data on alleged violations of copyright and (or) related rights and court decisions on these violations;

8) require individuals who violate the copyright and (or) related rights of the plaintiff, provide information about third parties involved in the production and distribution of counterfeit copies of works and objects of related rights, means of circumvention of technical means of protection, and channels of their distribution;

9) demand the adoption of other measures foreseen by the legislation related to the protection of copyright and related rights [86].

Unfortunately, the current state of innovative activity meets neither the needs nor the resources of our state. Ukraine is gradually losing its intellectual potential, and only recently, at the state level, it has begun to pay more attention to this issue. Significantly more favorable conditions for innovation in other countries are encouraging the highly skilled professionals' migration abroad. The unique gene pool is being depleted. Modern forms of organization of science in Ukraine in recent years have confirmed their complete inability to ensure a high level of development of both fundamental and applied sciences. To a large extent, the former scientific potential of Ukraine has been lost. In view of this, it is necessary to reorganize the management of research and development work.

**Recommended literature:** [1; 10 – 12; 25; 27; 43; 55; 62; 64; 65; 77; 86; 83].

## **Theme 4. Creative management as a basis for building a creative economy**

### **4.1. The essence and place of creative management in a creative society**

The creative component is now becoming the main requirement for the competitiveness of any enterprise. Globalization increases the scope and requirements for businesses as marketing, purchasing, production, research and development, distribution and logistics oriented to global markets.

Management of creative and innovative activities becomes the cornerstone of a modern organization. G. Khelel and K. Prakhald, consider orientation towards the advance to be the most general characteristic of creative

activity [50]. An innovative (creative) organization is a new model of flexible organization, which allows for using the knowledge, creative and innovative potential of each individual employee to generate profits.

The success of any of the companies that are rapidly growing, is the know-how, the original product, a new idea of organizing production, sales, advertising, new vision of the market.

Creative organizations (companies) can be found in various spheres of activity: the development of new products, building a company strategy in the management, organization and implementation of marketing activities, the interaction with customers, wholesale and retail organizations, consumers, intermediaries, suppliers, partners and competitors.

Innovative organizations are characterized by: adaptive organizational structure, the use of new ideas and working methods, the use of creative management, research and experimentation of continuous training, support initiative and innovation. Exactly creative management expects to expand the range of vision of development problems and design options for their solution. Using the methods and techniques of creative management is the key to success of modern businesses in a tough competition, unexpected changes in the economic conditions, in the process of accelerating technological progress and lack of time, complication of socio-psychological structure of modern people, in terms of drastic lifestyle changes under the influence of urbanization, information explosion, technical means for various purposes.

After a latent period, creative management, despite all the difficulty of becoming, has manifested itself as a real-life knowledge industry. Today, in many institutes and universities of the world there are special creative management courses. In Ukraine, in the higher education system, this discipline was introduced only at the beginning of the 21st century and now it is at the stage of formation.

The theory of creative management is at the intersection of innovation management, theory of art, which has many varieties (the theory of scientific, technical, artistic activity) and a number of other scientific disciplines (history, philosophy, psychology, sociology, law).

In the scientific literature there are different approaches to the definition of the essence and content of creative management (Table 4.1) [82, p. 7–8].

### The approaches to the definition of creative management

Approach	Definition
Systemic	A subsystem of innovation management which provides for the ability of management subjects to put forward and develop new ideas that take the form of scientific or technological information
Functional	One of the functions of management which is aimed at ensuring the ability of management subjects to promote and develop new ideas that take the form of scientific, technological information and accumulation of new ideas
Situational	A set of favorable conditions created by the leaders of the enterprise for the creative development of the labor collective and individual workers in order to accumulate creative ideas for solving industrial and economic problems, overcoming their consequences, etc.
Behavioral	A set of purposeful actions and actions of the leaders of the enterprise, aimed at accumulation of creative ideas for solving industrial and economic problems, overcoming their consequences, etc., as well as promoting the creative development of the labor collective and individual workers
Administrative	A set of managerial relations between managers and subordinates regarding the establishment of goals for finding creative ideas, their implementation, associated with the solution of industrial and economic problems, overcoming their consequences

Therefore, creative management at the enterprise is a special management activity aimed at activating the creative activity of the employees in terms of generation, search, development, combination of creative ideas, their evaluation and selection in order to realize the innovative development



of the enterprise and obtaining high economic, social and environmental results.

#### **4.2. The purpose, tasks and functions of creative management**

Any organization is an open system; and, therefore, a whole range of interconnected external and internal factors and processes affects the formation and development of creative management at an enterprise (Fig. 4.1).

External factors include the development of creative society, creative economy, creative education, in the country and the world which in general form a creative person who further develops creative processes and is the source of their introduction at any enterprise and in any field of activity and, according to the principle of feedback, contributes to the further development of creative society, creative economy, creative education. Internal factors of the formation and development of creative management are based on forming a creative environment at the enterprise. And the main tasks of managers who must purposefully influence people who can independently think creatively is the need to exercise their influence so as not to violate the creative atmosphere of each individual, to stimulate the level of intellectual activity, to solve a certain range of problems in the organization's production and economic activity.

The purpose of creative management is to ensure and maintain the competitive advantages of the organization through the promotion of talent, creativity of staff, the introduction of innovative management technologies.

The main goals of creative management are:

- ensuring the ability of management subjects to promote and develop ideas that acquire forms of scientific or technological information;
- accumulation of creative ideas;
- bringing creative ideas to the level of a finished product or technology;
- stimulation of the enterprise employees to special and collective creative development in favor of the organization;
- providing employees with the opportunity to gain knowledge;
- provision of the necessary information to the team;
- ensuring employees' rights to the results of creative (intellectual) activities;

- ensuring the balance of interests and rights of the organization and the developer of intellectual products;
- ensuring the continuous process of transforming creative activity into innovative solutions [82, p. 14].

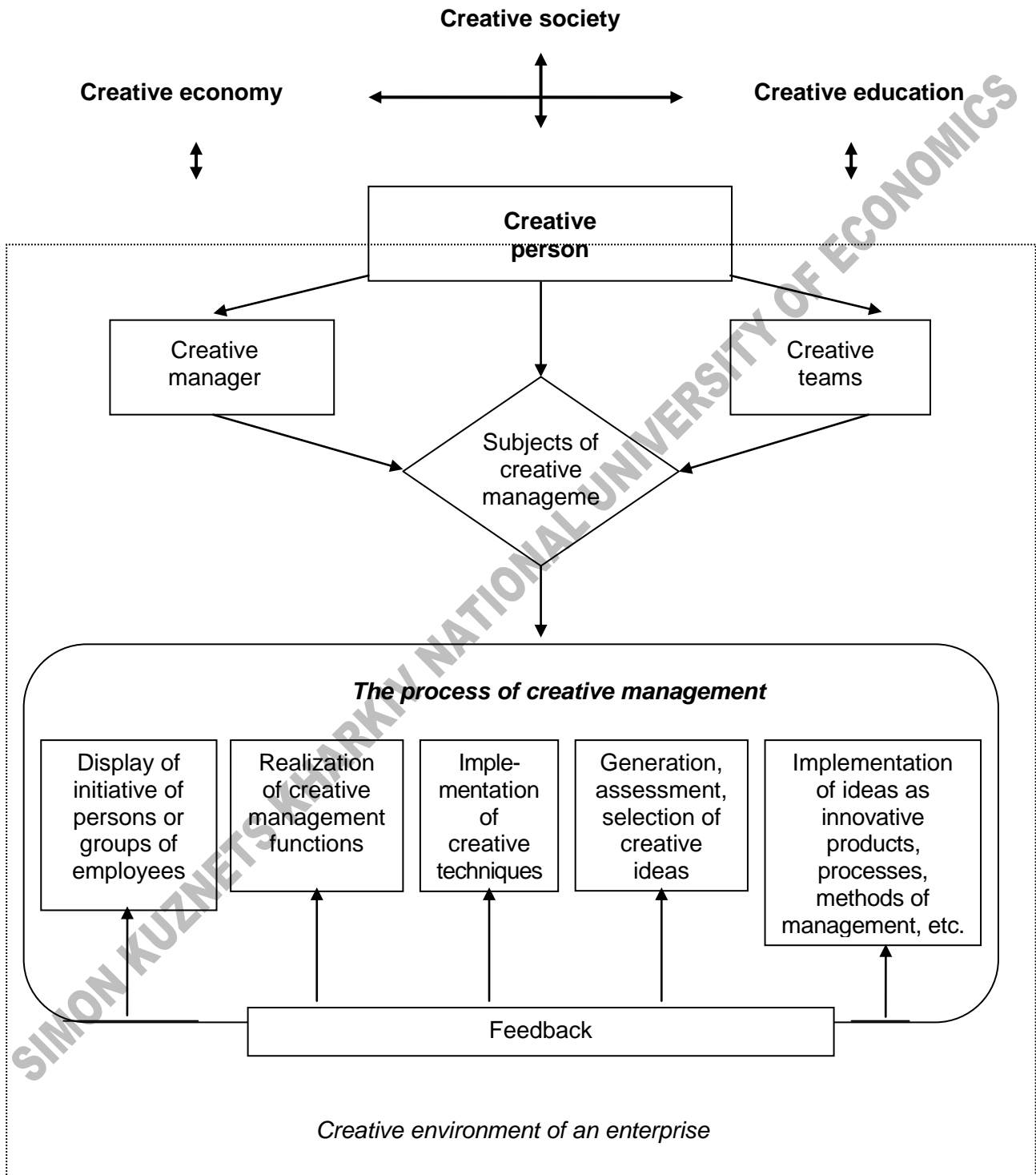


Fig. 4.1. The concept of creative management [6]

The main *tasks* of creative management are:

- 1) to form a creative team;

- 2) to create conditions for the development of innovative corporate culture;
- 3) to adapt the management system of creative teams;
- 4) to provide conditions for adaptation, development of the team to enhance the use of intellectual potential;
- 5) to organize a system for managing creative activity for the development of intellectual products;
- 6) to ensure the growth of the intellectual capital of the organization;
- 7) to increase the efficiency of creative activity in the innovative development of the organization.

The *object* is the process of making managerial decisions with the help of a consistent set of procedures that form the general scheme of management of the creative process [60, p. 11].

The *subjects* of creative management are:

- 1) internal subjects of creative activity:
  - employees of the enterprise who are engaged in the advancement and development of innovative ideas (the managed subsystem);
  - managers of enterprises engaged in the planning and organization of creative activity, motivation of employees involved in creative activity, their control and regulation (the control subsystem);
- 2) external subjects of creative activity:
  - specialists of consulting and engineering companies;
  - consumers of enterprise products, etc.

The most important specific *functions* of the system of creative management are:

- the information and analytical function (as a result of creative searches of creative management subjects the enterprise receives information about possible alternative ways of solving industrial and economic problems or directions of further development. The transformation of this information into a concrete creative (innovative) solution involves the application of various methods and forms of its analysis, which makes it possible to distinguish the advantages of one of the possible alternatives over others);
- the incentive function (in the general set of creative ideas offered by the employees of the enterprise, certain ideas acquire the style of creative decisions, that is, managers of the enterprise recognize them as such that it is advisable to realize for the purpose of obtaining specific effects. Depending

on the nature of the creative idea, these decisions may involve the development of innovative products or technology. This task involves the creation of a prototype product or technology, the creation, readjustment or acquisition of new equipment, motivation of workers, etc. That is, the idea at the level of the theoretical and analytical model can be a motivating factor for technological upgrading of production, increasing the level of professionalism of workers. It is obvious that the fulfilment of these tasks can lead to resistance of the subjects of the control and management of the control subsystem. Arguments of the opposite side can be the increasing cost of equipment upgrades and the production of pilot samples of innovative products, an increase in the number of workers who would have to be dismissed as a result of increased automation of production, etc.);

- reproductive-developing function (creative searches of the company's employees are a sign of their active participation in the improvement of the organization's development. During the development and analysis of creative ideas, the subjects of creative management deepen professional knowledge, expand their own horizons, receive respect and recognition from colleagues, etc. This contributes to the reproduction and development of personnel, in particular intellectual potential of the enterprise. Regardless of the number and importance of decision-making, the implementation of the creative management system of this function positively affects the development of the company, especially in the emotional and psychological state of employees, their motivation to productive activities, labor discipline, etc.) [82, p. 19–20].

**Recommended literature:** [6; 37; 50; 60; 82].

## Conclusions

A creative economy should be considered systematically, in a broad sense. In this case, it acts as:

- 1) post-industrial economy, since the share of services, rather than the sphere of production, is increasing and beginning to dominate;

- 2) information economy, because knowledge and science play a leading role in it as a factor of production; the role of creative work prevails;

3) innovative economy, since knowledge provides the opportunity to generate a continuous flow of innovations that meets the requirements of dynamically changing needs, and often forms them;

4) global network economy, since in the creative economy, the interaction between carriers of ideas is mediated by broad network communications on a global scale;

5) knowledge economy, as it increases the importance of human capital and investment in education and training.

Thus, we can say that the creative economy is a set of specific socio-economic relations that arise in relation to production, distribution, exchange and consumption, based on nonstandard, nontraditional ideas, concepts, strategies, measures that will provide effective qualitative solutions to social and economic problems based on new knowledge.

R. Florida underlines that the social, political and economic core of the creative economy is the so-called creative class, to which, in his opinion, representatives of creative professions belong. To determine the range of people a scientist attributes to a creative class, he offers his own structure of a modern society, built on the basis of the degree of use of creativity in the production process. As a result, in the structure of the creative class, he highlights the "super-creative core" and "creative professionals". The former includes professions related to programming, mathematics, architecture, engineering, professions in the field of natural and social sciences, librarianship, in the fields of art, design, entertainment, sports and the media. The latter consists of professions in the field of business, finance, law and health, professions related to sales and their management.

As a result of the significant spread of innovations in all spheres of human life, in the modern world one can observe the tendency to forming a so-called creative society in which the main role is devoted to new ideas and innovations.

The main characteristics of a creative society are as follows:

1) systematic investment in creativity in the form of costs for innovation in various spheres (economics, science, technology, art, social sphere, politics, etc.);

2) the growth of the practical return on the cost of innovation;

3) the growth of the number of professionals engaged in creative work in various fields;

4) development of venture capital;

5) development of innovative infrastructures (technoparks, innovation-technology centers and complexes, innovative venture companies, business incubators).

The transition to innovative factors of development affects all elements of the economic system. For example, in an educational institution, there is a need for prompt response to changing economic and social needs of society to increase economic efficiency and to develop close cooperation with various market players, including state and regional authorities, business structures, etc. Socio-economic development of a creative society is based on the activation of innovative factors, the development of high-tech industries with a high level of knowledge intensity of products produced and technologies used. All this leads to a change in the education paradigm. In a creative society, there is a need to ensure the continuity of education. This also applies to continuous training of the enterprise personnel during all their work.

In this regard, the priority task of educational institutions will be to increase their participation in the socio-economic development of the regions, to strengthen the regional ties of educational institutions with industry, business, science, through, among other ways, the implementation of projects for the creation of research and production centers, professional qualifications and so on. Educational institutions, together with industry and business as well as other stakeholders, should develop practical guidelines, techniques and programs specifically for training the staff, and create opportunities for sharing experiences and best practices.

As an integral value that characterizes the level of creativity of economies of different countries, R. Florida proposed a global index of creativity, which was calculated on the basis of three coefficients – technology, talent and tolerance.

The analyses of the regions of Ukraine based on this indicator made it possible to identify three main groups. The first cluster included large regions, with long university traditions, scientific and educational centers. In these regions a large number of talented young people are concentrated, who, after graduating from higher education institutions are most often employed in so-called creative industries. In addition, a large number of higher education institutions make significant financial investments in research in these regions. The second cluster included regions that are characterized by a high level of tolerance and a relative weight of the creative class. The high creative

potential of these regions is ensured by the positive characteristics of local communities, but so far weakly supported by real innovative activity. The third cluster is represented by regions in which, conversely, conditions are not quite favorable for the development of a creative environment, high values of investment in research and technology. This cluster includes agro-oriented regions. This is the cluster that has a high potential for creative development. The fourth cluster includes outsiders of the rankings of creativity. These are basically so-called old industrial regions, in which the industrial giants created in the Soviet times are still playing an important role. In inter-organizational interaction, such regions are dominated by vertical contracts. The share of small business in the local economy is negligible. Qualified, creative personnel move massively from these areas to neighboring and central regions with a less rigidly organized production life and a more diverse cultural environment.

To overcome the strongest inertia of the development characteristic of the old industrial regions, long-term efforts of the state, business and civil society institutions are needed. Quite often, as shown by foreign experience, the creative energy of the local community first awakens with restructuring of old industrial zones, industrial sites, abandoned mines and quarries, and seeking new forms of the use of these facilities for recreational and leisure purposes.

Intellectual property protection is an instrument of legal and economic regulation of inventions, since it allows you to retain ownership and profit from inventions or innovations. The system of protection includes:

- legal protection of intellectual property;
- development of the patent system;
- organization of national competitions of invention and innovation, etc.

## Key words

**Intellectual property protection** – an instrument of legal and economic regulation of inventions that allows you to retain ownership and profit from inventions or innovations.

**Innovative economy** – the economy, based on knowledge – "internal" or "external" for the organization – included in the innovation, that is in the

process of rotation of new ideas into a form suitable for the production and the market.

**Information security** – the actual and potential level of protection of confidential managerial information from disclosure, leakage, and unauthorized access.

**Creative industries** – a set of specific social and economic relations arising from the production, distribution, exchange and consumption based on innovative, unconventional ideas, concepts, strategies, measures which ensure effective solutions to social and economic problems through new knowledge, fundamentally new qualitative solutions.

**Creative organization** – a new flexible organization model that allows you to exploit the knowledge, creativity and innovation potential of each individual employee to generate profits.

**Creative system** – society as a whole and its elements, economics, business, company, team and one person who can create something new by combining the new context of two or more different elements in order to give the product (result) added value.

**Creative class** – the social, political and economic core of the creative economy which includes representatives of creative professions.

**Creative management** – special management activities providing enhanced creative activity of workers on the generation, sourcing, development, combining, evaluation and selection of creative ideas to implement innovative development of an enterprise and obtain high economic, social and environmental results.

**Information security system** – an organized set of special bodies, means, methods and measures that provide protection of information from internal and external threats.

## Tests

1. Name the country that is the leader in the creative sector:

- A) the USA;
- B) Japan;
- C) Singapore.

2. Name the principle laid down in the basis of the development of a creative economy according to R. Florida:



- A) scientific orientation;
- B) three T;
- C) protection of intellectual property.

3. The main features of the creative class are:

- A) individual peculiarity, independence, original thinking;
- B) high wages, a flexible work schedule;
- C) making a creative product.

4. List the obstacles on the way to the formation of creative industries in Ukraine:

- A) the absence of a legislative basis;
- B) the absence of a theoretical basis;
- C) lack of financing;
- D) absence of specialists.

5. On what principles is creative society built:

- A) humanism;
- B) tolerance;
- C) democracy;
- D) talent;
- E) creativity?

6. The index characterizing the country's creative potential is called:

- A) the index of talent;
- B) the human development index;
- C) the index of creativity.

7. Which regions of Ukraine are characterized by the highest level of the index of creativity:

- A) Kharkiv;
- B) Kyiv;
- C) Lviv;
- D) Dnipropetrovsk?

8. List the types of confidential information:

- A) labor;
- B) scientific and technical;
- C) financial;
- D) production.

9. What are the types of intellectual property rights protection:

- A) patents, licenses, copyrights;

B) franchises, patents, certificates;

C) patents, licenses?

10. List the known approaches to the definition of creative management:

A) scientific;

B) functional;

C) situational;

D) systemic.

### **Questions for discussion**

1. The common and distinctive features of the concepts of the economy of creativity, innovative economy and creative economy.

2. People of what professions can be classified as the creative class in Ukraine?

3. What domestic companies do you think are the most profitable ones? Why?

4. How can talents be attracted and urban space for production of new ideas be created?

5. Interconnection and complementarity of creativity and entrepreneurial activity.

6. The chain "creative societies – a creative organization – a creative personality".

7. What domestic organizations can be called creative? Why?

### **Questions for self-assessment**

1. What is the main difference between the creative economy and the traditional economic structure?

2. What is a creative class? What are the staff members?

3. What is the creative industry?

4. Describe the peculiarities of the development of creative industries abroad.

5. Describe the peculiarities of the development of creative industries in Ukraine.

6. What is creative society? On which basic principles is it based?

7. List the main characteristics of a creative society.

8. What is the main essence of the theory of three T, proposed by R. Florida?
9. What is the role of the university in a creative society?
10. Analyze the distribution of the regions of Ukraine according to the level of creativity? Why, in your opinion, has this situation developed?
11. What types of access to information do you know?
12. What types of information are classified as confidential?
13. What information cannot be confidential?
14. List the main sources and channels of the information flow.
15. What legal methods of obtaining information about competitors do you know?
16. What is intellectual property protection?
17. What are the types of intellectual property rights protection in Ukraine?
18. What is creative management? What approaches to the definition of creative management do you know?
19. Describe the main goals, tasks and functions of creative management.
20. What is the "four P" model? What is its feature? Give an example of two organizations where you can best describe the basic idea of the model.

## Section 2

### The theoretical foundations of creative management

**The purpose:** acquisition of knowledge and skills in the field of formation and development of creative environment at enterprises, the use of the corresponding types of motivation for specific creative personalities, the use of the principles of formation of creative teams and methods for solving problem situations.

**The professional competence:** the ability to determine the peculiarities of the motivation of each individual creative person, to form creative teams in accordance with the tasks, to choose the methods of system analysis of managerial problems, to assess the degree of integrity of the team, to organize working space in accordance with the needs of employees.

## **Theme 5. The process and nature of human thinking. The types of thinking**

### **5.1. The approaches to the definition of the thinking process**

Thinking is an active process of reflection of reality in the human mind, based on knowledge, intuition, habits and skills which defines the behavior of a person in a particular situation.

Thinking is forming, changing and evolving in the process of life-accumulation of experience, education, and the pursuit of professional activity. It depends to a certain extent on the individual characteristics, but can vary within a fairly wide range under the influence of educational processes, volitional efforts, special training, critical situations, and health conditions.

Thinking is not just a stock of knowledge, it is a more complex characteristic of a person which determines the success of any of his/her activities. The activity of the manager is work with people, making managerial decisions that are performed by employees. The quality of the solutions depends on the nature and type of manager's thinking. The manager must work not only with people, but also on the development of some of his own qualities. This is especially important in the development of his thinking.

The art of thinking is the management of your own mental processes, the ability to restrict and direct thoughts, "split" them if necessary, concentrate, use the temporal parameters of mental processes. The effectiveness of thinking is a kind of limiter, stimulus and quality of the mental process, the disciplinary factor.

Each process of logical thinking can be based on a certain class of dependencies, according to which we can distinguish:

- a mechanistic approach that recognizes ties operating in socio-economic systems and enshrined in formal documents;
- an organic approach that takes into account the natural causative relationships of phenomena, processes that ensure the fullest use of the potential of workers and firms;
- a dialectical approach, based on the ties created by contradictions, the development of scientific and technological progress, and innovation.

According to the characteristics of thinking a team is formed. It is easier for people to work if there is a certain combination of characteristics of their thinking. Employees understand a manager better if the type of his thinking is clear, if it is supplemented by typological characteristics of thinking of other employees.

The knowledge of the types of thinking is essential for the development of individual thinking and taking into account the characteristics of thinking in the formation of a team.

## 5.2. The types of thinking

Human thinking is diverse. It is believed that there are as many types of thinking as many people, that thinking is completely individual.

According to the criterion of the dynamics of thinking, we can distinguish the following types of thinking:

- dogmatic, characterized by attachment to any ideas without assessment of their relevance;
- stereotyped; it is typical of people who are inclined to think based on some accepted patterns, who are afraid of moving away from these patterns and falling into the field of uncertainty, losing the benchmarks;
- flexible, which is able to change in accordance with the development of science, the practical needs of effective activity.

The authors suggest the following types of thinking grouped depending on the features of the research process:

- system thinking which is considered to be a very valuable quality of the researcher, because it helps to cover the whole phenomenon in the estimations and analysis, to take into account the various connections between its components, properties and characteristics, to find the main thing – the system-forming factor, to see the invisible aspects of the problem, to predict the behavior of the elements;
- the humanitarian type of thinking which, as a rule, prefers to consider all aspects of the study associated with a person, and its toolkit selects a verbal description, operation with concepts;
- mathematical thinking based on the logic of symbols, boundary abstraction, clarity in the understanding of dependencies, modeling a community;

- technocratic thinking based on the construction of all connections in a phenomenon or a problem similar to those that exist in technical devices – simple causative relationships. In the study of socio-economic problems, this may be both ineffective and, in some cases, dangerous because it leads to simplification of processes;

- theoretical thinking which characterizes the aspiration for an abstract generalization, the search for regularities, the formation of theory, the definition of common features of objectivity, various conclusions and research results, the universality of positions and formulations. Theoretical thinking may cause flight from reality;

- empirical thinking which gives priority to experience, restricts the generalization of experience, relies on the estimates only based on the results of experience;

- the factual type of thinking which manifests itself in the evaluation and systematization of facts, the construction of all the logic of research and conclusions on concrete facts;

- associative thinking which functions through various associations, that is, arising from comparisons between phenomena on any basis of commonality, similarity, identity;

- intuitive thinking built on intuition with the main role played by the subconscious;

- heuristic thinking based on the perception and explanation of reality with the help of words, concepts, terms, the usual language of communication of people and the presentation of their thoughts;

- critical thinking characterized by the search for the negative sides of the problem, the complexity, the difficulties of solution, the evaluation of phenomena from the standpoint of negative consequences, sometimes exaggerated attention to disadvantages;

- positive thinking which is somewhat opposite of negativism. It is aimed at finding those aspects of the properties and qualities of the phenomena that allow us to find solutions to problems that are hidden springs of development;

In terms of purposeful objects, which one way or another always act in the mind of man, one can distinguish the following types of thinking: scientific, practical, pragmatic.

Scientific thinking involves the application of scientific methodology for the analysis and evaluation of phenomena.

Often in practice, one has to observe a pronounced practical thinking. It is oriented to practical problem solving; and the selection of problems is based on the possibility of finding a practical solution, practical significance.

Some modification of practical thinking is pragmatic thinking. It has such an excellent feature as a direct benefit, an instantaneous effect.

### **5.3. Creativity and creative thinking**

Including the work of our brain, our intelligence – we embark on a work activity that we define as thinking. The process of thinking can grow into the process of creativity if thinking aims to solve a formulated problem, to find an answer to a question.

Personal creativity is the process of thinking of a particular person, the result of which is the answer to the question, to which, at the time when the question was put, the answer was not known.

Creativity can be developed and obviously needs to be developed. As David Molden recommends in his book, for this purpose it is necessary to study and implement the methods of self-improvement. This is a technique in the field of psychotechnology which is called neurolinguistic programming (NLP) [70]. The method of NLP is a method for bringing under control and managing others. According to the author's recommendations, creativity and learning can be developed by stimulating the brain in various ways: emotionally, through nutrition and through combination of physical and mental labor.

There are four types of creative approaches (thinking) to solving problems:

1. Generating – identifying the problem and finding the facts.
2. Conceptual – defining the problem and searching for ideas.
3. Optimizing – evaluation and selection of ideas and planning of actions.
4. Executive – receiving approval and implementation.

The generating style of thinking involves extracting information from direct experience and considering the situation from different points of view. This approach allows you to conduct an advanced search for facts, identify the main problem and the accompanying additional problems, and offer a variety of solutions.

The conceptual style of thinking involves consideration of many options. Information can be withdrawn not only from experience but also through

abstract thinking. It is important for people with a conceptual style of thinking: to find an idea, to invent, and check it, to reach the truth, to achieve a concrete result while implementing the ideas is not their business.

The optimizing style of thinking allows you to evaluate the situation yourself with the help of your abstract thinking, find the only, best option and work it thoroughly, to the smallest details.

The executive style of thinking is characteristic of people who focus on their experience, trying not to think, but to check. These people achieve the result by trial and error, but the result will definitely be obtained, the problem will be removed, the decision will be made and applied to practice.

The manager under the conditions of dynamism, unpredictability of the environment must be able to think strategically and creatively. This, of course, is the perfect case when combining these two types of thinking. But in reality, each manager has a tendency to think strategically and creatively in varying degrees. We will trace the difference between these two types of thinking. Both strategic and creative thinking are turned to the future. Strategic type of thinking involves recognition and critical refraction of past experience.

Managers who have strategic thinking, sensitively perceive the main trends, as a result of which the future becomes different from the past. Leaders, who are characterized by a creative way of thinking, compare the past tendencies and create new ideas in a new way.

Leaders who have the creative mind set focus on novelty. Leaders with strategic thinking differ from creators in their willingness to recognize that the views and values of others have the right to exist and can make an important contribution to the success of the firm.

A successful description of prosperous leaders with strategic and creative types of thinking was formulated in the company Shell: such managers should be able to properly generalize, see the problem "from the height of the bird's flight", be able to rise above the idea of the complexity of tasks with many variables, which usually makes the novelty of the situation, and see the few variables and dependencies that determine the success of the reaction to this novelty.

To sum things up, we can safely assume that a creative, future-oriented, successful manager is able to adapt to new conditions and is ready for cooperation, and also is interested in innovations – the manager of creative type with strategic thinking will become the main type of managers in the coming decades.



Group creativity comes into action when the manager cannot cope with the problems and tasks that have been set aside for this time, when there is a desire to see as many ideas as possible on the given issue and find the best solution, when the problem is large or complex, when a very creative person cannot cope with the generation of significant diversity and volume of ideas.

An interesting method of collective creativity is when one problem is solved independently in parallel with different groups. For example, in the USSR, several design bureaus were created at once to develop an aircraft. Their proposals and developments were ranked based on priority; and the best ones were accepted for industrial realization in the first place (a way to focus investments on priority directions).

#### 5.4. Theories of thinking

Modern society is informational; the volume of received and necessary information sharply exceeds human capabilities. The way out in this situation can only be seen in the use of a certain knowledge-building system. And here the science of logic can help, which translates the process of mastering the world of man from the unconscious to the conscious.

Considering the most famous theories that explain the process of thinking, one can divide them into two large groups [61]:

theories that emerge from the hypothesis of the presence of a person's natural intellectual abilities that do not change under the influence of life experience;

the theory which is based on the idea that the human mental ability mainly forms and develops in vivo (Table 5.1).

Table 5.1

#### Theories of thinking

The name of the theory	The scientists who support it	The features of the definition of the thinking process
1	2	3
Introspective	J. Hadamard, O. Zelts, O. Kilpe	Thinking is considered as a set of pure operations, that is, dumb words, repeated acts and testimonies of prominent thinkers

Table 5.1 (continuation)

1	2	3
Genetic	A.-N. Perret-Clermont, J. Piaget	Thinking is connected with causal relationships, development of thinking in phylogenesis and ontogenesis
Associated empirical psychology	J. Locke, A. Ben, H. Spencer	Mental abilities are a priori, independent of associations with innate mental abilities
Behaviorism	J. Watson, E. Thorndike, E. Tolman, G. Clark	Thinking is the process of forming complex relationships between stimuli and reactions, the development of practical skills and skills associated with solving problems
Gestalt psychology	M. Wertheimer, K. Koffka, V. Keller	Thinking is an intuitive making of the solution being sought by identifying the communication or structure necessary for it
Psychoanalysis	S. Freud, A. Adler, C. Jung	Attraction of attention to unconscious forms of thinking, as well as to studying the dependence of thinking on the motives and needs of a human being
Information theory of thinking	G. Wertheimer, G. Woodworth, K. Dunker, O. Zelts, S. Kalmykova, G. Lindsay, A. Luk, Y. Ponomarov	The process of thinking passes the following stages: creating an image that meets the conditions of the task; operations of analysis, synthesis and above all generalization; finding the principle of decision; getting the result
Theory of the systematic formation of mental actions and concepts	P. Galperin, N. Talizina, N. Salmina	The stages of internalization of external actions in the process of thinking are highlighted, conditions are defined that ensure their most complete and effective translation into internal actions with predetermined properties. The process of transferring the external action inside occurs in stages, passing clearly defined stages. At each stage, the transformation of a given action occurs in a number of parameters. The author of the theory argues that a full-fledged action, that is, an action of a higher intellectual level, cannot be formed without reliance on previous methods of performing the same action

Table 5.1 (the end)

1	2	3
Neuropsychological theory	V. Bechterew, A. Luria, L. Tsvetkova, Karl H. Pribram	Thinking is based on the joint work of various brain systems. At the same time, as well as other cognitive processes, it has a dynamic and systemic localization. In particular, the parieto-occipital departments of the left hemisphere and the frontal lobes of the brain serve the visual-figurative thinking. With the defeat of parieto-occipital departments the possibility of combining the elements of information gets violated
Activity theory of thinking	L. Vygotsky, A. Leontiev, L. Halperin, D. Elkonin, V. Davydov, A. Petrovsky	It proceeds from the fact that activity generates all mental phenomena, qualities, features, processes and conditions. In contrast to the individual, the personality is in no sense prior to his/her activities or consciousness; the personality is rather generated by the activity

### 5.5. The methods and techniques of cognition

Formal logic is characterized by a large set of methods and techniques of cognition. The most important of them are analysis and synthesis, induction and deduction, comparison, analogy, hypothesis, evidence, certain laws of thought. Let's consider them in detail.

Analysis is a method of knowledge, consisting in the dismemberment of the whole into its constituent parts. Synthesis is a method consisting in the connection of separate parts into a single whole.

Induction is a method of cognition, based on the conclusions from particulars to generals. Deduction is a method based on conclusions from generals to particulars.

An important role in formal logic is given to comparison – a method that determines the similarity or difference between phenomena and processes.

Analogy is a method of cognition based on the transfer of one or a number of properties from a known phenomenon to an unknown one.

The hypothesis is a method of cognition, which consists in putting forward a scientifically grounded assumption about possible causes or connections of phenomena and processes. The hypothesis arises when there are new facts that contradict the old theory.

Practice shows that the most effective approaches are the dialectical one, which is based on the materialistic attitude towards truth and practice, and the systematic approach using various logical reasons for the generation of new ideas.

### **5.6. Formation of effective thinking**

Everyone can develop their mental abilities. To do this, you need to lead an active lifestyle; and an important part of it is proper nutrition. The source of energy for the brain is glucose. It enters the human body with products containing a lot of carbohydrates: they include cereals for breakfast, bread, pasta. The brain stores energy in the form of small portions. As a result, a stable replenishment of glucose reserves is required in order for the brain to function fully.

Intellectual (memory, thinking, attention), and emotional (feeling, mood) processes pass without any complications if control over them is carried out by neurotransmitters. These are special chemical elements located in the cerebral cortex. In order to avoid worsening of memory, the appearance of fatigue, poor mood, headache, it is necessary to adhere to a rational diet. For each person, it is necessary to give preference to food products that contain vitamin B: they can include peas, peel of vegetables, yeast, tomatoes, herbs, dairy products, oranges.

Nitric oxide as an important neurotransmitter is necessary for the organization of mental processes in the structures of the brain. It plays a special role in organizing memory processes that form the basis of intelligence. In 1991, several scientific groups found that nitric oxide controls the processes occurring in structures of long-term memory, as a neurotransmitter. Thus, arginine is a source for the formation of nitric oxide.

Fatigue and forgetfulness affect people, who according to the nature of their activities have to take certain important decisions. This applies to managers, creative workers, academics, entrepreneurs, journalists, etc.

Every day, the brain processes a huge stream of information, coordinates the work of the entire human body. As a result, it just needs energy

support. It should be noted that the brain is not at all indifferent to what food a person consumes: it needs constant provision of necessary substances.

The exchange of information material between nerve cells occurs with the help of transmitter substances intended for this purpose. The number and structure of these transmitters directly depend on the power supply. Table 5.2 presents a list of the main chemical elements necessary for a person's brain to work effectively [24].

Table 5.2

**The list of chemical elements needed for effective brain work**

Chemical elements	Action	Source
Amino acids	Improve working capacity	Dairy products, nuts, legumes
Complex carbohydrates	Give energy	Whole grain bread, pasta, potatoes
Vitamins A, C, E, group B	The action is similar to the action of antioxidants. As a result, nerves are strengthened, blood circulation improves	Fruit and vegetables, yeast, vegetable oil
Minerals, trace elements (calcium, magnesium, iron, boron)	Management of metabolic processes, participation in hematopoiesis	Vegetables, fruit, dairy products, nuts, sour cream

Efficiency is always a comparison of the result of the activity and the cost of its implementation. The result of thinking is nothing but success in solving problems, satisfaction with the work done, marginal clarity in understanding what needs to be done next and how to do it.

The cost of effort necessary for achieving the results is determined by the development of one or another type of manager's thinking, the choice of methodologies and approaches to solving problems. It determines the time expenditures, being the most important resource management, the costs of social and psychological efforts, which also impact the manager's activities.

**Recommended literature:** [24; 61; 70].

## Theme 6. Formation of a creative person

### 6.1. The essence of creativity and personality

Creativity is a complex multidimensional process that has physiological, sociological, logical, pedagogical, economic and other aspects.

The ancient Greek philosopher Plato was one of the first authors who highlighted the notion of creativity, emphasizing its universal character, saying that any transition from nothingness to being is creativity, and, therefore, the creation of any work of art and crafts can be called creativity, and all creators are their creators [40].

Fundamental changes came with the beginning of the Christian era, with the concept of creation (Latin *creatio*) of the world by God (creator is the creator, God, because He created the world), and this term is not used in relation to human activity.

The Renaissance, on the contrary, was imbued with faith in the infinite creative possibilities of man. Creativity was increasingly perceived as an artistic value; there appeared interest in the figure of the artist and the very act of creativity, the tendency to view history as a product of human creativity was becoming all the more expressive [49].

The Polish poet M. Sarbiewski (1595 – 1640) began to use this word in relation to his poetry. However, for a long time such an understanding of creativity had been exposed to criticism through the interpretation of the term as an act of creation of nothing.

In the age of Enlightenment, creativity was associated with the ability of man to represent something. English empirics (F. Bacon, T. Hobbes, J. Locke, D. Hume) interpreted creativity as a certain combination of already existing elements. Creativity, thus, was close to inventiveness. The completed concept of creativity in the 18th century was formalized by the German philosopher I. Kant, who specially analyzed the creative activity in the doctrine of the productive ability of imagination, which acts as the link between the mind and the sensual experience.

The teaching of Kant was continued by F. Schelling, who considered creative abilities in the unity of conscious and unconscious human activity. A look at the artist as a genius who works with inspiration, reaches its culmination in the era of Romanticism. Creativity of the artist and philosopher was considered the highest form of human activity.

In the idealistic philosophy of the late 19th – early 20th centuries, creativity was predominantly considered as opposed to mechanical and technical activities. At the same time, while the philosophy of life opposes the creative rationalism of natural origin, existentialism emphasizes the spiritual and personal nature of creativity. In the philosophy of life, the concept of creativity was most developed in the work of A. Bergson ("Creative Evolution", 1907) where it is treated as continuous birth of new, being the essence of life. All reality is considered by the philosopher as "continuous growth and infinite creativity" [5].

Existentialists considered creativity to be the most adequate form of art. M. Berdyaev ("The Contents of Creativity", 1916) considers creativity as "the work of God-like freedom of man, the disclosure of the image of the creator in him" [4].

The philosophy of pragmatism and positivism, by contrast, considers creativity as an invention, whose purpose is to solve a task posed by a certain situation. Marxist philosophy defines creativity as "human activity that transforms natural and social experience in accordance with the purposes and needs of man and humanity on the basis of objective laws of activity" [34]. At the same time, creativity requires the provision of greater space for personal initiative, individual inclinations, space of thought and fantasy [42, p. 13–16].

According to different approaches that determine the limits of creativity, there exist certain types of creativity: the actor (art), the wise (science and engineering) [42, p. 17]. V. O. Molyako, taking into account other types of human activity, distinguishes the following types of creativity: scientific, technical, literary, musical, visual, game, educational, domestic, military, managerial, situational, communicative [42].

Different authors define the ability to work in different ways, but what different approaches have in common is that they treat the capacity for creativity as the highest manifestation of human activity which is based on the creation of something new, original. It can manifest itself in any field of human activity. Creativity contributes to the development of observation, the ease of combining information, willingness to volitional stress, sensitivity to the detection of problems.

Recently, in the scientific literature, the term "creativity" has been predominantly used instead of the term "creative abilities". However, objectively, creativity should be defined as an ability to create rather than a certain

creative ability. In particular, N. Yu. Khryashcheva [71] delimits these categories as follows: art is a process that creates something new, while creativity represents the potential of a person that he uses to create something new.

In turn, O. Kutsevol notes, "... that art should be understood as a description of the subject's activities, emphasizing the procedural and productive side in it; and creativity – as a property of a gifted personality, which is the determinant of the creative attitude of man to the world, highlighting the subject-defined side in it" [28]. So, the concepts of art and creativity are very similar, but not identical.

L. B. Yermolaeva-Tomina [66] highlights the following main differences between art (creative abilities) and creativity:

1. Art is a process that can be included in all types of activities and, at the same time, may be lacking even in activities that require such inclusion. Human creativity can be manifested only in one kind of activity, which coincides with the special capacity for it (scientific, artistic, design and technical, etc.); mastering creative skills in a particular activity does not transfer them automatically to other activities. Creativity is a quality based on the development of higher mental functions.

2. Art is the ability on the basis of favorable natural resources; creative potential is laid down in the brain of each person, but its spontaneous manifestation is countered by the task of adaptation, which requires standard skills and axiomatic knowledge. Creativity as a personal quality, on the contrary, is formed due to the influence of the social environment, its value orientations, the requirements to the person, the organization of the information flow and the purpose of all activities, starting with the educational ones.

3. The process of art is based on unconscious and subconscious mental processes and proceeds in three phases – preparatory, search and executive. Each of the phases is directed to various mental processes and has its own "product"; and the person's capacity for each of the phases can be expressed in different ways. Creativity manifests itself in the successful resolution of all three phases – the ability to independently see and set problems, find solutions to them and creatively integrate them into a particular product.

Under current conditions, the notion of creativity is actively used in research of domestic and foreign authors (V. Druzhnin, L. Yermolaeva-



Tomina, M. Kozlenko, M. Leshchenko, A. Luk, A. Maslou, A. Matyushkin, V. Molyako, V. Petukhok, K. Toshina, G. Nazarova, etc.) [85, p. 215]. However, as R. Pavliuk notes, the concept cannot be defined clearly and unambiguously, a unified approach or concept of creativity has not been proposed. Only in foreign psychology, there are about hundred definitions of the above concept, reflecting the representation of researchers within the framework of numerous concepts of creativity [85].

Creativity is the latest term, which outlines the "creative abilities of the individual, characterized by the ability to produce fundamentally new ideas, and belonging to the structure of giftedness as an independent factor" [80]. Creativity has always been the main source of social development.

D. Perkins proposed a model of parameters and characteristics of creativity, which was called the model of six snowflakes (Six-trait Snowflake Model of Creativity) [7]. According to this psychologist, the main elements of creativity are as follows:

- strong internal motivation, keeping to his own principles: the creator is inclined to complication, reorganization, asymmetry; he gets pleasure posing the challenge of chaos and breaking through to the solution and synthesis;
- the ability to go beyond the boundaries of solving problems: for example, scientists consider to be "good" only questions that give interesting, unexpected answers that allow you to look at the problem from the other side, to get a creative decision or discover;
- mental mobility, which gives creative individuals the opportunity to find new perspectives in solving traditional or nonstandard problems: such individuals tend to think and reason "in spite of"; by reasoning metaphorically and by analogy, they eventually come to the assumptions that lead to a solution;
- willingness to take risks and make mistakes: creative individuals are able to learn from their own mistakes, working on the brink of opportunity, where there is a high risk of error, creative gifted people are more likely to produce new creative results;
- adoption of outsiders: creative individuals are inclined not only to critically examine and analyze their own ideas or proposals, but also to adequately perceive someone else's opinion or criticism, they are objective, which means going beyond their "I", searching for and taking into account the advice of competent colleagues, testing their ideas;

- internal motivation: the creators focus on the process of activity on their own, not for the sake of external material incentives; their work catalyzes the pleasure, satisfaction and the benefits of work [9, p. 119–120].

Some scholars believe that creativity is a congenital feature of man. Thanks to it the person shows himself, realizes social needs, and eventually – for achievements, successes, self-expression. Throughout life, through the development of labor skills, the accumulation of experience, the problems he faces, and many other various situational, objective and subjective factors, creativity develops and manifests itself in different ways. We can say that there is a relationship of behavior and creativity. Thanks to creativity, man expresses his own inner world and changes the external one, and the products of creativity encourage him to develop further.

According to I. Svydruk, primary creativity is something new that differs from what was before. Secondary creativity consists in the creation of a certain product (the implementation of a complex multistage process) with the addition of individual peculiar features. It concerns the issues that have already taken place, were solved earlier. For example, the director adapts for stage a classic work of a famous writer, but nonetheless has his own vision, selects the acting composition at his own discretion and creates his own performance in accordance with the traditional principles of its construction. This is secondary creativity. It is considered in a particular situation or circumstances, and modernity in it is somewhat arbitrary. However, the director can approach the production in a completely new way. We are talking about the birth of a unique concept, which no artist has used. This can be considered as primary creativity [42, p. 18–19].

E. de Bono emphasizes the fact that creativity is not a natural talent, but rather a skill that can be learned. In order to achieve creativity, one should challenge the conservative statements and rules. "By moving in the opposite direction, our thinking often overlooks the hidden possibilities that are beyond it" [7].

Consequently, creativity can be embodied in any business and manifest itself to anyone, especially if you take into account the many ways in which it can be realized.

## **6.2. The creative potential of the individual**

The creative potential of the individual, its content and dynamic components should be determined by the principle of antinomies, which

confirms the existence within the limits of one phenomenon of coexistence and counteraction of two opposite, polar tendencies, namely: originality and stereotypeness. In addition, it is considered that the category of potential contains two important components: they are the given and the possible [43, p. 282–284], and, consequently, its development must take place from the present to the possible. Further analysis of the possibilities for the disclosure and integration of creativity will take place on the basis of this content of creativity.

Objectively, the creative potential of the individual is assessed by determining the social significance of the innovations created, their usefulness in preserving the energy of human and humanity [29, p. 124].

Potential is the property of any live organism. It is about the productive, economic, scientific and technical potential, about the potential capabilities of an individual, society, and the state in a certain area of their life. But the creative potential is a value that characterizes the potential energy of the subject of creativity, his strength, power. Such a subject of creativity is a person, a collective, a people, a society, and others.

According to M. A. Reznik [41], the concept of creative potential is very close to the concept of intellectual potential, because the process of creativity is, in essence, the process of production of intellectual resources, and the result of professional creativity is largely concentrated in intellectual products (having various forms of presentation of these results). The invention is the most well-known form of such a product that falls under the notion of intellectual property [41, p. 36].

### **6.3. Creative barriers and ways to overcome them**

In general, various factors contribute to the creative potential of the individual. The modern American scientist D. Cloven distinguishes four main determinants on the way to creative human activity [76]:

- personal resources, that is, mind, temperament, strength, etc.;
- sources of support and guidance (various rules, guidelines and recommendations) that enable a person to orientate in the world;
- opportunities (or obstacles) to achieve personal goals, depending on social affiliation, race, age, gender, as well as the situation in the world (war, depression, significant social changes, etc.);
- the person's own efforts and activity.

The natural creative activity of man is manifested in the activity, the external social form of which is work that encompasses both the psychic and physiological spheres of life. People who are engaged in creativity, have to overcome a lot of difficulties. These are various barriers, antistimulants, which to a greater or lesser extent adversely affect the creative process.

Stimulation of the manifestation of creativity is possible in the case of external influence on the emotional state of a human being, although, of course, such influence does not guarantee full disclosure of creative potential. H. Gleitman, A. Fridlund, D. Reisberg [76] distinguish other psychological blocks and fixations that may hinder the task:

1) emotional barriers: the prohibition and fear of being ridiculous or mistaken, intolerance to ambiguity, excessive self-criticism (an architect is afraid to try a new unusual design because he fears that colleagues will consider him frivolous);

2) cultural barriers: the idea that fantasy is a waste of time, that playfulness is inherent only in children; logic and numbers, and feelings, intuitions, pleasures and humor interfere with the solution of problems (a corporate manager wants to solve a problem related to business, but he rages when employees of this marketing group joke about possible solutions);

3) mastered barriers: the norms of the use (functional use) of values, possibilities and taboo (a cook does not have a clean bowl and he does not want to use a frying pan to prepare the mixture);

4) barriers of perception: habits interfere with the identification of important elements of a task (a novice artist focuses on drawing a vase with flowers and does not see an empty space around the vase as part of the composition).

Let's dwell on the listed creative barriers in more detail.

1. Fear of doing something wrong. In 1913 there was a premiere of a ballet, which caused a revolt among the public. Primitive and cruel rhythms of music and dance shocked the audience, who were used to a more relaxed melody. The police intervened, but even they could not restore order until the ballet was over. Stravinsky left the theatre in tears. Subsequently, this work became one of the greatest achievements of the 20th century. This example is a visual situation in which the lack of fear of a person to be unclear made him a great and well-known composer.

2. Lack of time. The Victorian writer Anthony Trollope worked at the post office, leaving him very little free time to realize his literary ambitions. His

decision was to get up at 5.30 am every morning and write a few hundred words before breakfast. He also wrote on trains while on a trip to work. In the end, he earned a good deal on his novels, which allowed him to abandon his work, but most of his 37 novels were written while he was a regular staffer.

3. Disorganization. "The cluttered table is a sign of genius."

4. Inner critic. An internal critic is a voice in the head, which tends to keep the creator from creating something new.

5. Absence of inspiration.

6. Taking on too much. Each creator can see new ideas in any, even the most unusual places. Trying to realize any idea will not allow him to eventually bring to the fulfilment at least one of them.

7. Information overload. Too many websites to visit, too many blogs to read, too much video to watch, lots of music to listen to.

8. Procrastination.

In order to overcome the existing creative barriers, American psychologists propose certain measures that will mitigate or even eliminate those factors that impede the realization of the creative potential of people (Table 6.1).

Table 6.1

### Ways of overcoming the creative barriers

Creative barrier	Ways of overcoming
1	2
Fear of doing something wrong	<ul style="list-style-type: none"> <li>• work with your body. It is not necessary to be afraid of those things that first fall into thought;</li> <li>• start doing things wrong;</li> <li>• do not be afraid of critics. If you find that you cannot help thinking critics, colleagues, listeners and other people who can criticize you for something, you must say "Stop" and mentally turn around to face them. Enjoying, look at their faces</li> </ul>
Lack of time	<ul style="list-style-type: none"> <li>• determine the most productive period of time during the day;</li> <li>• form ways to protect the time for the creative. One of the reasons that pushes creativity to the background is that for most other tasks that require attention, someone else needs a result: the manager wants you to do your job, your family wants you to be involved in the work home, your friends will miss you if you disappear from the social sphere. To do this</li> </ul>

Table 6.1 (the end)

1	2
	you need to: define a specific time (for example, two hours on a Saturday morning); when it's time to create, you need to turn off the phone, email, internet, etc.
Desorganization	<ul style="list-style-type: none"> <li>• create your own system. Here are some examples of well-known people who have created certain rituals for themselves that would motivate them for creativity: John Cheever, who worked in a cellar undressed in underwear before sitting down to write; Gertrude Stein, who wrote poems while sitting in her car; Alexandre Dumas, who started every working day, ate an apple at 7 o'clock in the morning under the Arc de Triomphe;</li> <li>• become constant and orderly in your everyday life in order to be strong and original in the work</li> </ul>
Inner critic	<ul style="list-style-type: none"> <li>• treat the internal critic as a partner. Consider it as a good genius who tries to protect you from mistakes;</li> <li>• deceive internal criticism. Do not take the matter directly, but get involved in the work gradually</li> </ul>
Absence of inspiration	<ul style="list-style-type: none"> <li>• follow the discoveries in the course of work. As Tolkien described his masterpiece "The Lord of the Rings": "... the child's story, which grew into a serious book". When he described the public bar, Tolkien found himself writing about a mysterious figure sitting in the corner of the room. At this stage, even the author did not have an idea who it was. Subsequently, he was Aragorn, one of the most important characters in the book</li> </ul>
Taking on too much	<ul style="list-style-type: none"> <li>• identify with priorities (form your own hierarchy of needs in such a way as to use it as the basis for future decisions). You can use the A. Maslow pyramid – the lower level (things you need to do for a career), the upper level (things that are nice to do but not necessary), and the middle is what needs to be done against what is interesting to do</li> </ul>
Information overload	<ul style="list-style-type: none"> <li>• provide information rest (informational diet for a week: seven days without any newspapers, magazines, news);</li> <li>• use filter – rule 80/20 for filtering information: compile a list of 20 % of websites, blogs, people on Twitter and other sources that send you 80 % of the most interesting media content. Send the rest to the basket</li> </ul>
Procrastination	<ul style="list-style-type: none"> <li>• make creativity a habit. Associate between any events, people and creativity in such a way that when you feel these emotions, see these people, you want to create</li> </ul>

Thus, there are a large number of environmental factors and internal psychological barriers that do not allow the creative potential of a person to be realized. However, along with this, there are a number of ways to overcome such creative barriers, psychological techniques that will make the process of creativity more systematic, orderly and productive.

#### **6.4. The features of a creative personality**

Researchers of the problem of creativity point out that the concept of a creative personality can be interpreted in two ways. According to the first one, creativity to a certain degree is peculiar to each person. It is as inseparable from human beings as the ability to think, talk, feel. Moreover, the realization of creative potential, regardless of its scale makes a person mentally complete. To save a person of this opportunity means to cause him a neurotic state [85].

According to the second interpretation, not every person should be considered as a creative person or creator. This position is related to another understanding of the nature of creativity. Here, in addition to the unprogrammed process of creating something new, the value of a new result is taken into account. It should be universally significant, although its scale may be quite different. An important feature of a creator is a strong and steady need for creativity. A creative person cannot live without creativity, they see creativity as the main goal and the main content of their lives [85]. In general, creative personalities are characterized by the fact that they:

- are able to detect a lot of strange properties in various subjects, constantly ask questions, have a wide range of interests in different fields, often collect unusual ideas;
- easily generate a large number of ideas, options for solving problems, find unusual, nonstandard, often even unique techniques and methods;
- may be unbridled in expressing their thoughts, radical, stubborn, extremely persistent, especially in defending their thoughts;
- are prone to risky actions, even to adventures, enjoy receiving new unexpected and previously unknown impressions;
- are interested in various intellectual games, easily immersed in fantasy, dreams, reflections, their imagination. They say: "It is interesting, and what would be if ..", or "What will happen if we change ...", easily manipulate

ideas. They are modified, adapting to other conditions, modifying their own or others' original thoughts;

- show live, sharp humor, see a funny side in those subjects and situations that others do not find ridiculous: their humor may even seem too eccentric;

- tend to nonstandard behavior, are more willing to irrational deeds, do not hesitate to demonstrate the contradictions of their nature;

- are extremely emotional and sensual, inclined to conduct independent aesthetic experiments (in painting, literature, music);

- admit disorder, chaos in their environment or situations, are not interested in details that are considered unimportant, identify themselves as nonconformists, are considered selfish, individualistic;

- they cannot be classified as "gray mass", without thinking about the necessity of opposing the majority;

- do not recognize any categorical assertions without self-examination, are subject to general doubts and critical revision, however, as a rule, constructive, the courage of the mind allows them to follow their intuition.

Analyzing the portraits of such different, in terms of creativity, people who lived in different epochs and in different countries, it is worth noting those common, general features that characterize their work [22, p. 258–288].

As a result of considering the peculiarities of the creative process and the main features of a creative personality, one can identify the main features that characterize a developed creative personality:

- independence – personal standards are more important than the standards of the group; incompliance of assessments and judgments;

- the depth and breadth of knowledge, the ability to apply it in different situations, a formed steady need for constant renewal and acquisition of new knowledge;

- purposeful aspiration for the truth, high tolerance to uncertain and unresolved situations, constructive activity in these situations, the ability to penetrate deeply into the essence of the problem, to identify the connection between phenomena, that is, the ability to analyze and synthesize, the ability to independently work systematically, the insurmountable aspiration for self-improvement and self-realization;

- constructive criticism and self-criticism, the ability to abandon outdated habits and attitudes, to reconcile the new with the former personal experience and experience of others;



- scientific outlook;
- developed aesthetic sensation, aspiration for beauty.

### 6.5. The stages of the creative process

S. I. Makshanov and N. Yu. Khryashchev singled out the following stages of the creative process [71]:

- the stage of preparation characterized by a conscious effort to find a way out of a problematic situation, where the subject logically processes, analyzes the problem, as a whole, as well as its individual elements, collects additional information;
- the frustration stage that occurs at the time when, after analyzing all the information and checking the solutions to the problem, the individual still finds no answer;
- the stage of incubation which begins at the time when the individual ceases to consciously work on the problem associated with the logical operations of the left hemisphere of the brain, and the problem is transmitted to the right hemisphere;
- the insight stage – this is a short-term but very clear stage of the creative process, the moment of entering into the sphere of comprehension of the solution to the problem, which is characterized by violent positive, even euphoric emotions;
- the stage of development, during which the verification of the truth of the solution obtains some logical form. This stage can be presented in two steps: a) verification of the truth of the insight; b) implementation [71].

While the listed stages relate to creative individuals, the phases of the creative process presented in Table 6.2 can be used by managers for organizing the work of creative teams at enterprises [6].

Table 6.2

#### The phases of the creative process

The name of the cycle phase	The general characteristics
1	2
1. Recession	Loss of interest in the work, low level of motivation cause a decrease in the level of creativity among employees. This phase is characterized by the ability to productively generate unexpected

Table 6.2 (the end)

1	2
	ideas, without taking into account the possibilities of their expediency, the correspondence to the real demand of the environment
2. Depression (bottom)	The lack of organizational support, the fear of criticizing of the expressed nonstandard thoughts, the failure of experience generate dissatisfaction with the working conditions and lead to the reluctance of workers to think creatively and to offer extraordinary solutions. This phase is characterized by the standard and template for the generation of ideas
3. Revitalization	The emergence of directed interest and readiness to create and research the implementation of fundamentally new and unusual ideas. This phase is characterized by a sharp reaction to the emerging contradictions of self-esteem and objective results of activity and is an important stimulus for the generation of creative ideas
4. Peak	The ease and speed of generating original, unique, thoughtful and detailed nonstandard ideas, the subordination of creativity to spiritual motivation, a steady interest in a particular work

Thus, the process of managing creativity should take into account the existence of certain phases in the development of creativity of workers. For example, if employees are in the phase of recession, possible sessions of generation of ideas can only take place in the form of brainstorming, where the main rule is the lack of criticism – the main task at this stage can be the generation of random ideas without discussion.

### **6.6. The forms of the discovery, development and use of creative potential**

Creative potential, as well as any other character trait, may and need to be developed. There are certain tools that allow you to use the skills you learn most effectively. Today, in the arsenal of mankind, many tools have been accumulated to facilitate the process of creating new ideas and stimulating the creative process of the staff.

There are many approaches that scientists use to group and classify methods of creativity development and decision making [42].

Some researchers distinguish three main groups of methods: heuristic, which require the greatest realization of creative potential of employees, functional and structural research of objects, as well as combined algorithms. Also, in the literature, there is a grouping of all methods according to the criterion of activating creative thinking: psychological, which involves motivating workers to creativity, as well as methods of systematized search for ideas. The generalization of the existing methods for promoting creative potential is presented in Fig. 6.1.

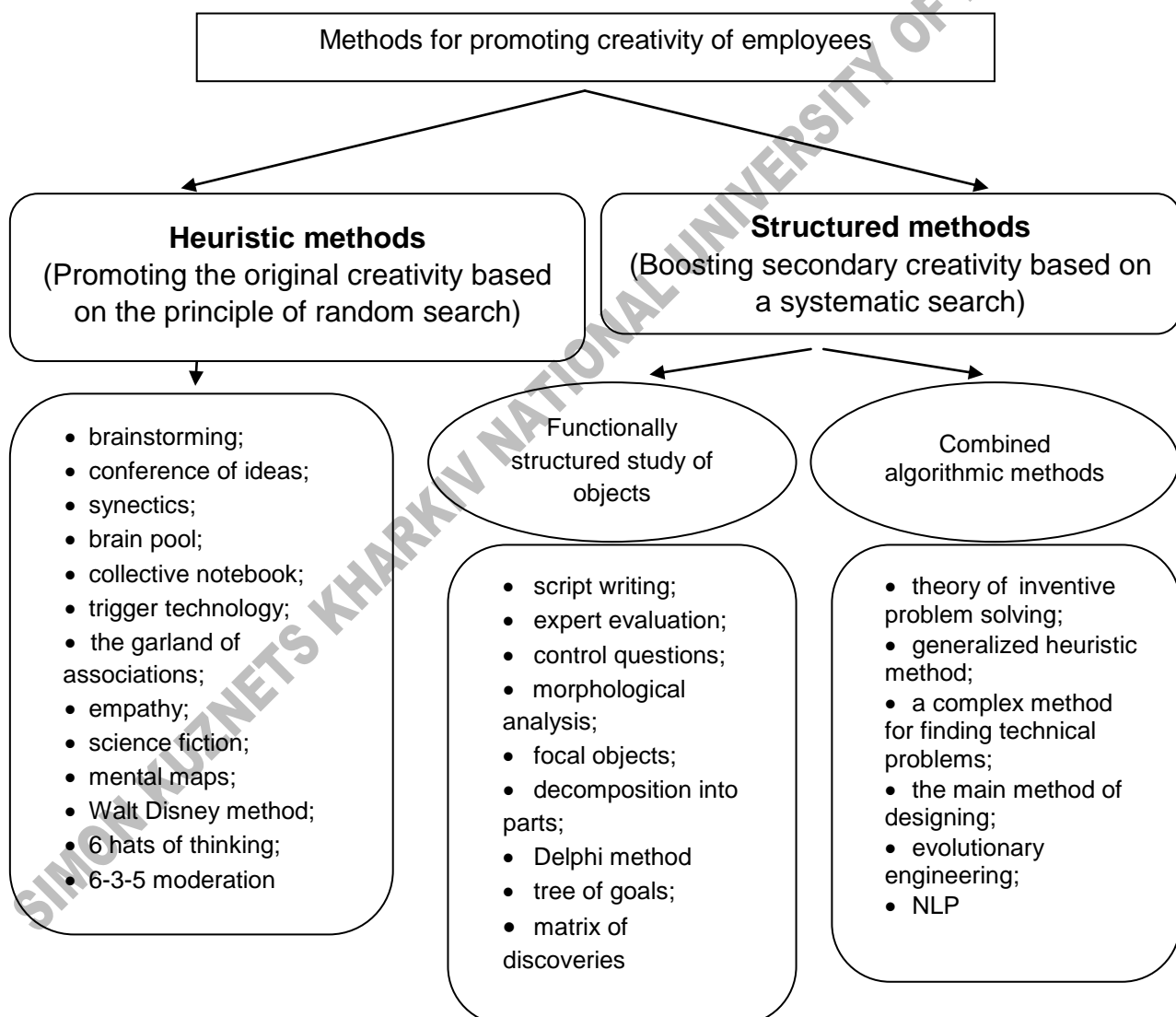


Fig. 6.1. The methods for promoting creativity

Let's dwell on the mentioned methods in more detail. Each of them has its advantages and disadvantages which are presented in Table 6.3.

Table 6.3

### Advantages and disadvantages of the methods for promoting creative potential of employees

The name of the method	The essence	Advantages	Disadvantages
1	2	3	4
<b>Heuristics methods</b>			
Brainstorming	The team of experts is working on the problem in two stages: the generation of ideas, and then the selection of the best one. At the first stage, any criticism is forbidden	<ul style="list-style-type: none"> <li>• solutions can be found quickly and economically;</li> <li>• a wider picture of the problem or issue can be obtained;</li> <li>• a more open atmosphere in the group;</li> <li>• joint responsibility for the result</li> </ul>	<ul style="list-style-type: none"> <li>• complexity of organization of group work, the leading role of the curator of the group</li> </ul>
Conference of ideas	Modification of the method of brainstorming, which differs from it by admissible criticism in the form of remarks and comments	<ul style="list-style-type: none"> <li>• solutions can be found quickly and economically;</li> <li>• a wider picture of the problem or issue can be obtained;</li> <li>• a more open atmosphere in the group;</li> <li>• joint responsibility for the result</li> </ul>	<ul style="list-style-type: none"> <li>• complexity of organization of group work, the leading role of the curator of the group</li> </ul>
Synectics	The group is looking for solutions to problems in areas other than those where they have already been found, based on the analogy method	<ul style="list-style-type: none"> <li>• a deeper understanding of a particular problem;</li> <li>• an increased ability to apply knowledge;</li> <li>• adaptation to different teaching methods;</li> <li>• promotion of empathy</li> </ul>	<ul style="list-style-type: none"> <li>• more complex than brainstorming in terms of implementation;</li> <li>• requires a lot of time</li> </ul>
Brain pool	Proposals of participants are recorded in special forms that lie in the center. Formulas can be replaced in the process of work	<ul style="list-style-type: none"> <li>• simplicity of implementation</li> </ul>	<ul style="list-style-type: none"> <li>• availability of special knowledge about the problem under investigation</li> </ul>

Table 6.3 (continuation)

1	2	3	4
Collective notebook	All researchers publish notebooks for ideas that contain a description of the problem. In a month all notebooks are collected and processed by the coordinator	<ul style="list-style-type: none"> <li>the participants do not require coordination at the time and place of the group meeting</li> </ul>	<ul style="list-style-type: none"> <li>the complexity of processing the results and bringing them to a general view</li> </ul>
Trigger technology	At the first stage, each member of the group advocates solving the problem, then the participants express their ideas and record the new ones that arise during the discussion	<ul style="list-style-type: none"> <li>complex analysis of the problem;</li> <li>the ability to reject inappropriate ideas at the first stage of the discussion</li> </ul>	<ul style="list-style-type: none"> <li>availability of special knowledge about the problem under investigation</li> </ul>
The garland of associations	A sequence of synonyms of the object is formed, which gives the first garland; the second garland is formed from randomly taken words	<ul style="list-style-type: none"> <li>makes it possible to modify the existing object, is used to expand the existing range, to offer new approaches to designing machines</li> </ul>	<ul style="list-style-type: none"> <li>does not provide the opportunity to come up with a fundamentally new object</li> </ul>
Empathy	Identification of the researcher with the object being developed	<ul style="list-style-type: none"> <li>simplicity of implementation</li> </ul>	<ul style="list-style-type: none"> <li>requires special knowledge from the researcher</li> </ul>
Fantasy	The method that allows you to present unrealizable events in reality	<ul style="list-style-type: none"> <li>simplicity of implementation</li> </ul>	<ul style="list-style-type: none"> <li>requires special knowledge from the researcher</li> </ul>
Mental maps	The method that allows you to submit information in such a way that it can simultaneously be perceived by the left and right hemispheres of the brain	<ul style="list-style-type: none"> <li>an easier way of recording information;</li> <li>when reading the card, one can see the relationships in the information block;</li> <li>develops thinking, memory, imagination;</li> <li>easy to learn</li> </ul>	<ul style="list-style-type: none"> <li>complexity of realization for people who are not prone to artistic imagination</li> </ul>
Walt Disney method	Based on three-point thinking which takes place in three stages: creative, that is, creating ideas; realistic, which allows a person to appreciate the idea; critical, which makes it possible to prevent possible difficulties	<ul style="list-style-type: none"> <li>suitable for both individual and group work;</li> <li>effective for finding original ideas</li> </ul>	<ul style="list-style-type: none"> <li>generalization of the method;</li> <li>researchers should be experts in their field</li> </ul>

Table 6.3 (continuation)

1	2	3	4
Six hats of thinking	Based on six-point thinking, allows you to evaluate the problem from six points of view: positive, negative, emotions, objective facts and figures, creativity, implementers	<ul style="list-style-type: none"> <li>• suitable for both individual and group work;</li> <li>• effective for finding original ideas</li> </ul>	<ul style="list-style-type: none"> <li>• generalization of the method;</li> <li>• researchers should be experts in their field</li> </ul>
6-3-5 moderation	A modified method of brainstorming, in which all ideas are written on a sheet in the process of discussion. Six team members generate three ideas on a special form within five minutes	<ul style="list-style-type: none"> <li>• suitable for both individual and group work;</li> <li>• eliminates interpersonal conflicts</li> </ul>	<ul style="list-style-type: none"> <li>• increased time for making a decision</li> </ul>
<b>Structured methods</b>			
Script writing	Written description of methods and ideas about the problem	<ul style="list-style-type: none"> <li>• availability of quantitative technical-economic and statistical analysis with preliminary conclusions and forecasts</li> </ul>	<ul style="list-style-type: none"> <li>• complex in implementation;</li> <li>• requires special knowledge from researchers</li> </ul>
Expert estimation	The method of identifying expert opinions through interviews and questionnaires	<ul style="list-style-type: none"> <li>• simplicity of getting the results</li> </ul>	<ul style="list-style-type: none"> <li>• a generalized group evaluation is not always correct</li> </ul>
Control questions	Provides answers to questions that may lead to an interesting idea of modifying an object	<ul style="list-style-type: none"> <li>• more purposeful and systematic work on the problem</li> </ul>	<ul style="list-style-type: none"> <li>• a great chance to get a template solution</li> </ul>
Morphological analyses	Allows you to systematically find the largest number or all possible solutions to the problem	<ul style="list-style-type: none"> <li>• the method allows you to systematize all the options and choose the best of them</li> </ul>	<ul style="list-style-type: none"> <li>• a great chance to get a template solution</li> </ul>
Focal objects	Transfer of signs of randomly selected objects to a modified object	<ul style="list-style-type: none"> <li>• gives good results when searching for new modifications of the known gadgets and methods</li> </ul>	<ul style="list-style-type: none"> <li>• allows you to only modify, rather than invent an object</li> </ul>
Decomposition into parts	A list of the main characteristics of an idea or subject is formed and considered separately for the purpose of improvement	<ul style="list-style-type: none"> <li>• gives good results when searching for new modifications of the known gadgets and methods</li> </ul>	<ul style="list-style-type: none"> <li>• allows you to only modify, rather than invent an object</li> </ul>

Table 6.3 (the end)

1	2	3	4
Delphi method	Modification of the method of expert evaluations, which is conducted in several stages, and the possibility of familiarization with the opinion of colleagues between the tours	<ul style="list-style-type: none"> <li>high reliability of results thanks to feedback and multistep nature</li> </ul>	<ul style="list-style-type: none"> <li>the need to substantiate one's own thoughts that do not coincide with others can lead to the effect of conformism</li> </ul>
Tree of goals	Graphic representation of the subordination and the relationship of goals	<ul style="list-style-type: none"> <li>allows you to systematize information about the problem</li> </ul>	<ul style="list-style-type: none"> <li>allows you to only modify, rather than invent an object</li> </ul>
Matrix of discoveries	All variables are placed in a table and the participant are trying to combine them and find a new solution	<ul style="list-style-type: none"> <li>it gives an opportunity to purposefully form both the objects of influence and the methods, and then systematically study different variants</li> </ul>	<ul style="list-style-type: none"> <li>allows you to only modify, rather than invent an object</li> </ul>

Thus, there is a large number of methods for boosting the creative potential of employees, each of which has its advantages and disadvantages, as well as the complexity and cost of implementation. The effectiveness of the use depends on the goals set before the researchers.

**Recommended literature:** [4 – 7; 22; 28 – 30; 34; 40 – 42; 49; 66; 69; 71; 76; 80; 84; 85].

## Theme 7. The creative type of manager

### 7.1. The role of a manager in a modern organization

In today's world, creative, dynamic managers who demonstrate great opportunities in implementing risky projects and the ability to control risky business situations, take on leadership positions. In 2003, the Institute of Strategic Change of the consulting company "Assenchor" ranked the most prominent and most influential modern business intellectuals. More than 300 of the most popular intellectuals in the world, whose ideas, work, and teaching in the field of management have taken a prominent place in the minds of the community, were appreciated. Then, the top 50 thinkers of the

world were identified. The list being headed by Michael Potter, who is named the most influential strategy professor, Tom Peters, who wrote a bestseller on how to compete and win in competition, Peter Drucker, often called the father of modern management, Peter Senge, the author of books on self-learning organization, Gary Hamel, Warren Bennis, Philip Kotler, who made a significant contribution to the development of management science. This list also includes the most successful managers – the founder and chairman of Microsoft corporations Bill Gates, the former chairman of General Electric Jack Welch, the founder and chairman of Dell Computer Corporation Michael Dell [52].

Under modern conditions, it is necessary to acquire such knowledge that can be sold, that is, knowledge that can help to create new products, new technologies. As Peter Drucker said, "... today only the one who can make knowledge work can be the real manager. Today, a manager who seeks to successfully work in the market requires a whole range of knowledge: economics, management, psychology, logic, and the specifics of the industry in which he works. He should know the current legislation, information technology, business foreign languages. In addition, this knowledge must be constantly updated to keep up with the new advances in science and technology. Human ability to learn, process and produce knowledge becomes the basis of power in an organization".

The modern manager has a big advantage over his predecessors – he works with people who have a lot of skills and a lot of knowledge. Since the manager must know no less than subordinates, the most important criterion for his suitability for professional duties is the orientation "I will learn how to do". In this regard, the challenge the manager faces is not so much how to get some kind of specific amount of knowledge, but how much to constantly learn. "In the meantime," Peter Senge notes, "as the manager's ability to learn increases, new business ideas emerge, and these ideas automatically turn into decisions and actions" [48].

Management specialists explain the success of Japanese companies not by the perfection of production, but by the qualifications of human resources, and the art of "forming the knowledge of the organization." The latter refers to the ability of an organization to acquire new knowledge, distribute it among its employees, and implement it in the production of products, services, in the process of its own system development. At the same time, the interaction between people both within the organization and in



external relations constantly transforms personal knowledge into the public. Those organizations that do not just have access to knowledge, but who distribute and create new knowledge, that is, manage knowledge, win.

The effective solution of the problem of knowledge dissemination depends on the creation by managers of such conditions that would stimulate the train of employees to knowledge. It is about creating such an infrastructure and launching such processes that would contribute to the large-scale accumulation of knowledge. Then each employee helps others to deepen their knowledge, and together they will continuously develop collective knowledge. Comprehensive education is a powerful management strategy, emphasized in the book "Management of the 21st Century". It involves training all employees without exception – from directors to ordinary employees.

According to management specialists, the following strategies regulate this problem [74]:

- appreciating network leaders as bearers of new ideas and mentors (leaders who have hierarchical powers are often focused on their current affairs and cannot effectively share what they learn in the process of their work);
- focusing on groups (communities) of people in the organization, considering them as channels for dissemination of knowledge and information to explore the mechanisms of functioning of these channels, ways of maintaining and protecting knowledge;
  - persistent and free dissemination of information about innovations;
  - holding general meetings, where representatives of different units try to find collective solutions to the most important problems of mutual interest;
  - creation and use of more effective means for internal information exchange;
  - cultivation of issues that have not been answered yet.

All organizations learn, in one way or another, to adapt to environmental changes. However, some learn more quickly and more effectively than others if they deal with it constantly, in the process of daily work. In such organizations, all employees are involved in the generation of information, making decisions, based on it, on how to proceed. They initiate changes because they acquire knowledge themselves. A constant process of learning becomes an active tool, since it fundamentally changes the perception of the bearers of knowledge, hence the bearers of power. The main feature of such

an organization is not abstract dreams, but the fact that it has a single corporate goal. People learn faster if they have a developed sense of shared responsibility for their actions. Due to this they become leaders in their field and establish their own rules of the game.

Managers who seek to create an organization, that is who are self-taught, should provide conditions for the development of workers having five skills:

- to improve the personality (to form creative tension between the dream and the reality, to strive for more);
- to construct intellectual models (to learn more precisely to understand what affects people's thoughts and actions, problems that do not lie on the surface);
- to support the general dream (to raise the sense of devotion to the organization, to develop the principles that ensure the achievement of the common goal);
- to study in groups (interaction, dialogues, discussions open the way to collective thinking, mobilize energy and direct joint activities to the achievement of a common goal);
- to develop system thinking (it helps to understand the laws of development of dynamic systems, science of management, to act taking into account changes occurring in nature and society).

## **7.2. The characteristics of a creative type of manager**

The main characteristics of a creative type of manager are:

- problem vision of the world, the ability to think strategically, see prospects, identify problems in advance;
- the ability to set problems early when they are just starting up;
- systemic and panoramic perception of reality, processes of functioning and development of a controlled object;
- the ability to think logically, to make correct and successful statements under the lack of information;
- developed psychological self-regulation, which determines the attitude to problems and their assessment;
- the ability to simulate the functions of different members of the team;
- psychological insight that allows you to see and distinguish the peculiarities of people's behavior, the ability to perceive, understand, accept and use points of view, different from their own or even opposite to them. The compensator of insight is psychodiagnosis;

- innovation and strategic thinking, the ability to go beyond the formal, usual, proven, traditional;
- activity – the ability to involve people in joint activities without resorting to means of material or administrative coercion;
- the ability to quickly readjust psychologically under the changing conditions of activity or transition to the solution of fundamentally new tasks;
- the ability to delegate not only power and responsibility, but also the authority of the leader;
- the capacity for latent (hidden) leadership, which implies involvement of people in the activity on the covert rather than formal subordinate basis, the ability to seek advice and assistance.

The basis of forming a manager of a creative type is the potential of the manager, which must constantly improve.

Potential is the ability of a person to achieve the goals set. Human ability is a tendency to manage in different situations on the basis of leadership, intellectual energy, activity and initiative. Human abilities are manifested through their quality.

Quality is the ability to react, influenced by factors of the environment. The potential of a person is formed under the influence of ergonomics, the conditions under which qualities develop and are realized with a certain force of influence, that is, human energy. Positive conditions of ergonomics is the basis for saving energy of a person.

The structure of the potential of a creative type of manager is presented in Table 7.1.

Table 7.1

### The structure of the potential of a creative type of manager

Structure	Criteria	Main qualities
1	2	3
1. Intellectual and moral potential	Values (culture, etc.)	Education, culture, ethics of communication, intelligence of the individual
2. Organizational and behavioral potential	Leadership	Organizational, businesslike, communicative initiative, authority

Table 7.1 (the end)

1	2	3
3. Psychophysiological potential	Independence and balance of a personality	Type of higher nervous system, emotional conflict, endurance, speed of thinking, memory, workability
4. Professional and cognitive potential	The level of knowledge and experience	Professionalism, competence, the level of education, experience, the ability to analyze critically, innovation

The listed characteristics of a creative manager should be formed in the following directions:

1. Strategic thinking:

- obtaining professional education and experience;
- getting creative education.

2. Formation of the manager's potential:

- development of creative intelligence;
- formation of etiquette and values of creative management.

3. Formation of creative qualities and characteristics:

- development of strategic thinking;
- formation of the aspects of "collective mind" and joint activity and integration.

4. Mastering of technologies and methods of making strategic decisions.

5. Mastering techniques and methods of generation of ideas, concepts, organizing socio-designing of new situations.

### 7.3. Business coaching

Recently, in order to develop human resources, managers have started to use such a management tool as coaching. Coaching is mentoring, inspiration, training. It is a method of mastering new knowledge, identifying and disclosing the potential of an individual and a team, a way of getting higher business results using the same resources, primarily through intelligence and knowledge. It helps to free up human capabilities to achieve

corporate goals. The basic principle of coaching is that all people have much greater abilities and potential than they are in everyday life. Coaching as a management tool contributes to the development of intellectual potential and creativity. So, thanks to the training courses introduced by H. Ford, the employees brought in an additional \$2 million as a result of the implementation of innovative ideas. Instead of imposing any changes on the staff, the company formed a culture of training and self-development of staff. According to the poll of the Fortune magazine, 90 % of respondents indicated that new, promising initiatives appeared in their organizations through coaching. This allowed Peter Drucker to emphasize that the efficiency of production is a matter of knowledge and compliance with its principles, rather than the issue of technical skills.

Coaching is a collaborative, result-oriented, and systematic process in which the coach promotes productivity, life experience, self-learning and personal growth of individuals. Coaching occurs in two types: external and internal.

An external trainer is a consultant who is involved in the organization for working with individuals and/or teams, usually at meetings of 1 – 2 hours.

Advantages of using an external coach are: a fresh look (this means that he may notice regularities and make connections that are not obvious to the employees of the organization); increased emphasis on customer needs (since the external trainer does not have direct manager's responsibilities, it will be relatively easy to devote all his attention to the needs of the client during the session); a confidential forum for discussion (a coaching session is confidential between a trainer and a student; people sometimes feel more comfortable when discussing confidential information or personal issues with an external trainer than with a direct supervisor); highly developed coach skills (external trainers tend to receive more coaching skills than managers, and spend much more time learning people); experienced professionals (in addition to their basic skills in coaching, many outside trainers have additional experience that makes them particularly suitable for specific tasks. Such experience may include leadership, development techniques, sales, negotiation, mediation, presentation skills, creativity, psychology and emotional intelligence).

An internal trainer involves work in the form of cooperation with colleagues, which manifests itself in the following: make decisions, listen

more, give less orders, ask more questions, give concrete information instead of judging.

Advantages of managerial trainers are: deep knowledge of people and organizations (since the outside coach lacks long-time communication, does not have the same level of influence on the organization and its employees as the manager does, therefore he will never have the same depth of knowledge about the personnel); long-term relationships (managers spend more time with members of their team, they have the opportunity to learn their best and build a solid foundation of mutual trust and respect that is necessary for effective relationships); more opportunities for influence (contact with HR managers is not limited to formal training – they constantly interact with members of their team and have many opportunities to influence them).

A business coach should have the following skills for the most effective work:

1. Targeting. Coaching is a goal-oriented approach, therefore the ability to formulate clear, well-defined and emotionally attractive goals is one of the most important skills for a coach. These are the so-called SMART goals (specific, measurable, attractive, realistic, with timeframes).

2. The ability to see. As trainers begin to look at a person carefully, they almost always understand how another person feels, and this opens up new opportunities for further negotiation.

3. The ability to listen. This process is often referred to as active listening to emphasize the difference with the passive one. Such listening is manifested in the fact that the coach accepts what the other person says and expresses active empathy, showing that he is completely involved.

4. The ability to empathize. Some people feel compassion as a powerful physical sensation.

5. Correct asking questions. When putting questions, you need to remember three components:

the focus does not matter (they are not a directive, but they have a significant impact. Experienced trainers can use a question to help people go beyond thinking and search for answers in the most unexpected places);

identifying new ideas (no matter how obvious the answer to the coach seems to be, sometimes it's much better to hear alternatives);

increasing affection (even if the student comes with the same idea that the coach had in mind, the fact that he himself is trying to find a solution indicates that this person will have a much greater sense of self-importance and attachment).

6. Providing feedback (the key to providing effective feedback is observance and impartiality: if a clear, concrete understanding of the students' actions and their consequences is provided, then the learner will be able to independently assess the importance of their actions).

7. Intuition.

8. Control. If there is no control, you can lose your creativity and enthusiasm.

The modern business uses the so-called GROW-model, which was developed by John Whitmore and described in his book. It offers a way of structuring coaching to facilitate the discussion process:

G – goal (the definition of what needs to be achieved). What do you want to achieve? What will change when the goal is achieved? How important is it?

R – reality (study of the current situation, relevant history and probable future trends). What is happening now? Who is involved? What is the result? What will happen in the future?

O – options (developing new ideas for achieving the goal). What can I do? What ideas can you bring from past experience? What has not yet been implemented?

W – What/who/when (making a decision on a specific action plan). What needs to be done within the project? When? Who should be involved? When will you see the result?

In addition to internal and external coaching, there is also formal and informal coaching. The differences between formal and informal coaching are presented in Table 7.2.

Table 7.2

**The differences between formal and informal coaching**

Formal coaching	Informal coaching
Used explicitly	Deep understanding of personnel
Planned meetings	Daily working talks
Program from the beginning to the end	Permanent process, style of management
Most of the talk in the training mode	The manager can switch from the coach mode to other management styles

Formal coaching is implemented during scheduled meetings, so time is dedicated specifically to coaching. At special meetings, the manager sends a powerful signal to individual members of the group that their development and success are important and that it works to provide support.

Informal coaching is not implemented at scheduled meetings, but is realized through everyday conversations in the workplace. These conversations can be short or long, one on one or in a group, task-oriented or person-oriented.

For businesses where business coaching becomes an integral part of management, we can highlight the following benefits:

responsibility – employees are given the opportunity to work towards the goal they find personally significant, as well as provide business results, and to use their creativity and initiative to work in their own way;

creativity – by asking questions, listening and giving feedback in order to stimulate the thinking of students, the trainer makes the work process very creative;

empowerment – managers can free their time and energy from everyday work, and use thinking and actions that are aimed at achieving success of the company;

productivity increase – when these individual improvements are increased and coordinated within the company, the impact on productivity can be enormous;

morale and retaining talented employees – talented employees need effective managers. A talented employee can join the company through his charismatic leaders, his social package, and his world-class teaching programs, but for how long this employee will remain and how productively he will work, is determined by his relationship with the direct manager;

intellectual capital – only organizations and individuals who are able to actively manage their learning processes will be successful in today's market environment.

#### **7.4. Leadership models: charismatic and expert**

The managers of large successful companies use almost exclusively the notion of leader. They recognize the influence on people, the enthusiasm and creativity of the subordinates as a key factor in the success of the organization led by them.



A successful manager associates the development of the organization with the development of staff. The composition of the manager's skills to a large extent are interrelated with a set of factors peculiar to a so-called humanistic or leadership approach to personnel management. The leader's approach is the modern style of personnel management, which is characterized as follows:

- the main factor of success and development of an organization is the development of people, their leadership qualities appropriate for a person and the desired level of organization: from leadership in the profession to the leader of the first level;
- one of the key goals of success is to create a highly productive team and maintain its productivity for the required time (for example, before the completion of the project) or permanently;
- encouraging voluntary extension of authority, initiative and responsibility, reasonable risk;
- the method of decision-making: coaching, methods of collective mental activity, involvement in decision-making;
- recruitment of personnel: taking into account the individual labor potential and the potential necessary for working in a team (communicative skills, leadership, development);
- the way of bringing tasks to the performer: coaching, customer orientation, group orientation;
- the attitude to knowledge: the leader appreciates and manages knowledge;
- development of the leadership qualities of subordinates, expanding their outlook, providing widespread continuity;
- self-development of the leader – constant work;
- the attitude to subordinates: an interested, individual approach;
- the attitude to discipline: a possible individual regime in excess of the negative impact on the team;
- incentives taking into account the individual characteristics, needs, contribution and expectations of the employee (if possible);
- the content of work: mostly creative, productive, collective;
- possible deviations: group thinking, loss of high moral qualities, substitution of organization goals for group or leader goals, transformation of stay in a group into a rest home.

As part of the leadership approach to creativity management, most domestic and foreign authors identify two main models of leadership:

charismatic and expert. With the right choice and development of leaders in the organization there is either one or both models of leadership.

Charismatic leadership is leadership built on energy, charm, the ability to inspire, lead. In most cases, a formal leader with charisma is informal at the same time: he respects and sympathizes with colleagues not only as a leader but also as a person. The charismatic model of leadership has significant pros. Such a leader often does not need to resort to additional material incentives, since his personality is a strong motivating factor for subordinates. He is usually included in their reference group, so his praise, attention or criticism can have a very strong impact on employees. Charisma is a strong factor of influence, therefore, such leaders often resort to breakthroughs, mobilization of subordinates under the conditions of crisis and force majeure. The charismatic leader easily unites people and creates excellent teams. As a rule, his subordinates demonstrate a high level of loyalty and affection (Table 7.3).

Along with the benefits, the charismatic model of leadership has its disadvantages or risks. A charismatic leader can only cause strong emotions, and the first risk of a charismatic leadership model is that a negative attitude toward a person, the image of such a person can lead to a situation of complete inertia: the leader loses the opportunity to give the necessary effect or, worse, encounters open aggression or hidden sabotage on the part of subordinates.

Table 7.3

### The features of charismatic and expert leadership models

Leader behavioral features	Expectations of employees and subordinates	Psychological features of a leader
1	2	3
<b>The charismatic model</b>		
The leader: <ul style="list-style-type: none"> <li>■ is usually an extrovert, energetic, active type of person;</li> <li>■ serves a model to follow;</li> <li>■ in most cases, is in the spotlight;</li> <li>■ is also an informal leader</li> </ul>	The leader: <ul style="list-style-type: none"> <li>■ is perceived to be such;</li> <li>■ the personnel expect human communication from him, they want to be friends and spend time with the leader out of work;</li> <li>■ hope for inspiration, support</li> </ul>	The leader, usually relying on the strength of spirit and belief by force of the word, attaches great importance to the strength of personality, much less attention to the skills and positions of the expert

Table 7.3 (the end)

1	2	3
<ul style="list-style-type: none"> <li>■ likes to communicate with people;</li> <li>■ as a rule has good sense of humor;</li> <li>■ prefers short or medium distance in communication</li> </ul>	<ul style="list-style-type: none"> <li>■ the leader is often perceived as "a commander in front on a horse";</li> <li>■ the employees expect an individual approach;</li> <li>■ those for whom professional growth is most important, expect mentoring and the ability to analyze</li> </ul>	<p>As a rule, the leader highly values loyalty and ambition, as well as the charm and energy of the subordinates</p>
<b>The expert model</b>		
<p>The leader:</p> <ul style="list-style-type: none"> <li>■ can be both an extrovert and introvert;</li> <li>■ is an analyst;</li> <li>■ is deeply concerned with the substance of the matter;</li> <li>■ seeks to use science-based approaches;</li> <li>■ is prone to mentoring and training of subordinates;</li> <li>■ constantly upgrades his qualification and expects others to do so;</li> <li>■ is not inclined to public speaking;</li> <li>■ usually does not tend to stand out and does not show a vivid charisma;</li> <li>■ is not very inclined to friendly, personal relationships with subordinates, prefers medium or long distance communication</li> </ul>	<ul style="list-style-type: none"> <li>■ the employees are looking for advice, assistance, analysis, sometimes the recipes and panacea;</li> <li>■ subordinates, for whom professional growth is important, hope for professional development assistance;</li> <li>■ the employees rely on the leader's ability to solve any problem, give advice in any situation;</li> <li>■ the leader is often considered infallible, unable to make mistakes;</li> <li>■ sometimes, the leader needs to pay more attention to the subordinates, reducing the distance</li> </ul>	<p>Usually believes in the force of knowledge, that with the help of competent analysis it is possible to solve most problems;</p> <ul style="list-style-type: none"> <li>■ The belief that the main thing is not to give up, is sometimes manifested in the conscious desire to remain in the shade, avoiding public events;</li> <li>■ Frequently underestimates the importance of charisma and attaches great importance to expert influence</li> </ul>

Another risk is associated with a rather large emotional load on the leader himself. He is compelled to be constantly at his best – to maintain the image of an energetic and sympathetic person, to exercise a strong energy influence, to psychologically nurture subordinates. The third risk, like the first one, is also related to employees and their behavior. Often, a strong

charismatic leader creates such a strong sense of a person who can do anything that this reduces the initiative and responsibility of the subordinates.

There are two variants of charismatic leadership – let's call them soft and hard charisma. Leaders with soft charisma are loved, respected, but not afraid of. They are more inclined to motivate and convince than to intimidate and punish. As a rule, they ask for advice in difficult situations, discuss their mistakes, they are more likely to be called for support. However, the soft, charismatic style can have such disadvantages as lowering subordination more than possible, weakening discipline, some elements of permissiveness.

The hard charisma is "terrible charm and power." That type of leader, of course, attracts people, sometimes even fascinates them, but at the same time awakes some fear in his subordinates.

The most effective type of leadership is the versatile option, when the leader uses, if necessary, both the soft and hard charismatic style. Typically, the alternation of the hard and soft model in the "wrong" proportion produces a very strong impression. The rotation of stiffness and softness should not be 50/50, but with the predominance of one or another style (depending on the natural predisposition of man and the managerial situation). If for most of the time the leader demonstrates the soft style, then rare manifestations of rigidity will make a strong impression. And vice versa, with a dominant hard style found in special cases, softness will be remembered, appreciated and impressing.

Expert leadership is leadership, based primarily on knowledge, when the leader becomes the best expert – an analyst, an expert able to solve virtually any complex problem. An expert in this case is not a professional who cannot manage, but a good specialist in his business and at the same time an administrator who can help solve any problem (Table 7.4).

Of course, ideally, it is desirable that the leaders meet the two models. However, in reality, this is not always possible, therefore it is desirable to identify priorities that may depend on the specifics of the function, the stage of the organization's life cycle or corporate culture.

The best option is the combination of two models of leadership, the ability to alternate them depending on the circumstances, type of task and type of employee. For example, when solving professionally challenging problems requiring systematic, complex analysis, an expert model of leadership is needed. It is also needed in conjunction with subordinates, for whom the main thing is the professional component of their work and to

a much lesser extent, the importance of the relationship with people, personal factors. If the task requires a breakthrough, inspiration, a serious emotional charge, then in this case a more charismatic model will bring benefits. The same model will be in demand in contact with employees of the emotional type, for whom relationships in the team in general and with the head in particular are important.

Thus, a charismatic model is needed in those spheres of activity where the communicative competence, the ability to locate people, influence, create a positive field around themselves, etc., are most significant. This category includes sales, business activities, customer service, advertising, to a large extent – marketing, some types of office work.

An expert model works better where professionalism does not require a high level of emotional competence, success is rather determined by specific skills and knowledge than the ability to interact with other people. These areas include most of the work related to finance, accounting, information technology.

**Recommended literature:** [45; 74; 77].

## **Theme 8. Formation of creative environment in an organization**

### **8.1. The process of moderation of creative activity**

At most domestic enterprises, managers adhere to those management traditions that were formed even under the command economy. In their activity, instead of focusing on the production of high-quality products that can compete in the domestic and world markets, managers focus their attention on the production of goods without applying a creative approach that requires minimal quality and cost. Due to the lack of necessary institutional changes and weak motivation, the labor behavior of the majority of the able-bodied population of Ukraine remains passive and is characterized by expectations of the results of further economic and social reforms [35].

Experience shows that the staff of domestic enterprises is not ready for the use of various types of innovations and is, in the majority, a deterrent to the introduction of innovations. This is due to the fear of changing the usual

way of working of the staff, the reluctance to make efforts to take additional training without significant material incentives.

In order to encourage employees to continually improve their qualifications, the following measures must be taken:

- planning and providing of continuous training and career growth;
- creation of conditions encouraging the development and implementation of innovation;
- conducting stable analysis of the needs of employees;
- various recognition and material rewards;
- facilitating an open bilateral discussion of information on the need to improve the quality of work;
- provision of conditions for effective collective work;
- clear definition of powers and responsibilities of the personnel;
- development of personal and collective goals, management of the process of improvement and evaluation of results;
- informing of the necessity to make suggestions and improvement of the production process;
- analysis of the degree of employee satisfaction and improvement of approaches to raising the level of motivation;
- analysis of staff turnover and improvement of the selection and placement process.

The management of modern enterprises underestimates the potential of innovative ideas of their employees. Many of the staff can make a valuable contribution to the development of their enterprise. Their proposals can help solve many different problems, and sometimes push other ideas that are implemented at the level of managers and relate to the creation of new services, product improvement, or the choice of new business development strategies.

Unfortunately, such ideas are, as a rule, expressed in informal communication between employees and are not realized due to the lack of opportunities to report innovation proposals to managers.

An important component of the organization of creative work is provision of deep knowledge of psychological patterns of the inclusion of an individual participant in the joint work, socio-psychological factors and conditions that affect the effectiveness of research and creative development, as well as specific characteristics that distinguish it from individual activities.

For organized, purposeful and effective joint creative experience, scientific management, the use of modern principles and methods of management, namely social management, are needed.

Social management is first and foremost people's leadership, systematic and purposeful work with people, which is based on the psychological competence of the head.

The psychological competence of the head is knowledge of the psychology of the individual, as well as the regularities and socio-psychological mechanisms of the functioning of the group. Since in the system of social management, man is the main element of both control and controlled subsystems, knowledge of the head of personality psychology is one of the basic preconditions of the scientific organization of management of joint activity.

It is extremely important for a leader to timely capture the changes taking place in a managed subsystem, especially during the period of formation of collective self-government, and not to hinder it, not to make a false conclusion about limiting its official powers, and to stimulate this important aspect of joint activity – the development of collective self-government.

Administering under such conditions at best will reduce the creative activity of employees, and may lead to conflict situations, which complicates and disrupts joint activities.

## **8.2. Organization of the working environment in a creative company**

An important component of stimulation of the creative process at an enterprise, in addition to competent management, is the organization of a comfortable environment, which would facilitate the implementation of creative potential of employees. As a rule, the organization of space in companies, which takes into account the peculiarities of promoting the creativity, is more oriented to mobility than to the hierarchy: public spaces and open offices have replaced former separate offices with closed doors and rows of identical booths for ordinary employees. The new workplace also includes an element of visual uniqueness and some incompleteness and includes the following elements:

- open planning of offices;
- high ceilings;

- a pass along the outer wall;
- common areas (conveniently located, well-planned and equipped);
- enough space for rest and communication;
- absence of unnecessary things, separate storage rooms;
- aesthetic atmosphere (high-quality design, bright colors, nude structures, etc.);
- reflected light;
- artworks;
- placement of furniture in niches to create random areas for meetings;
- placing boards and flip charts in places where employees are going;
- distribution of chalk, white stickers and dining tables to encourage "doodling", plotting charts;
- establishing weekly lunches, where people in turn tell their colleagues about their ideas and form feedback;
- providing teams with "rooms for war" in which they can meet, plan, place information and view competitor products.

### **8.3. Corporate culture as an essential element in the formation of a creative environment**

An important element of the socio-psychological component of stimulation of creative activity is the formation of a certain culture in the organization. Organization culture, or corporate culture, is a factor that determines what is in store for an organization: a long period of prosperity, or the end its existence.

The organization's culture must be formed carefully and deliberately, only under such conditions, employees can not only justify the expectations of their company in the field of their creative activity, but also surpass them, revealing features in other situations.

The main objects of corporate culture include:

1. The external environment – including the mission, the company logo, reporting and the uniform. Equally important are the stories, legends and myths that are passed down from generation to generation in the organization, as well as slogans, architecture, dress code, production planning and the unique, inherent only in this company, jargon – all this is decisive and special only for this company.



2. The behavior of workers is often more noticeable to people who are not familiar with the behavior of the dominant organization in the behavior style [61].

At a deeper level, culture includes values and collective beliefs about what constitutes an organization and what its peculiarities are.

Of the many different conceptions of organizational culture, the most successful one, worthy of attention, is the model of Charles Handy, which in his book "Understanding Organizations" identifies four template types of culture:

*power culture* which is based on unified command and is inherent in private companies at the beginning of their existence;

*role culture* characteristic of bureaucratic organizations in the form of large industrial concerns that operate in a stable environment;

*task culture* which is aimed at performing specific tasks or projects and used in organizations with a matrix management structure;

*person culture*. In organizations with such culture, the main object of management is employees. The structure of such an organization is minimal. This type of culture often prevails in professional organizations, for example, in architectural or consulting.

From the standpoint of creativity, all of the proposed types of culture have their advantages and disadvantages, the analysis of which is presented in Table 8.1 [37].

Table 8.1

**The characteristics of the types of organizational culture by  
Ch. Handy**

Type of culture	Advantages	Disadvantages
1	2	3
Power culture	The speed of decision-making, operational response to critical situations, trust in managers, creativity is rewarded with increasing power of the organization and the leading people in it	Organizations can hardly exist in the absence of a leader, their growth may be constrained, and inappropriate creativity is likely to be restrained
Role culture	Successfully operates in a stable environment; career growth and opportunities depend on the length of work in the organization; creative activity is possible if it is disguised in "rational clothing"	The high degree of resistance to change; individualists and dissidents are not encouraged; under favorable conditions for business development, changes take place very slowly; excessive diligence or radical creativity limit career growth

Table 8.1 (the end)

1	2	3
Task culture	Rapid adaptation to change; being effective in rapidly changing market segments, the ability to contribute to a high level of productive creativity	If the goal is lost, the focus of the organization can be scattered, it can become ineffective, have difficulty controlling
Person culture	High efficiency in case of consistency between individual and organizational goals, high level of creativity	Controlling is virtually impossible, creative activity can be aimed at satisfying the internal needs of the individual

In some organizations, several cultures coexist simultaneously. Charles Handy gives an example of the General Electric Corporation, in which there was a central government culture, but the company was able to provide sustainable growth by giving maximum authority and financial independence to executives of individual firms, each with its own culture and only one criterion for evaluating performance – financial performance.

Thus, the influence of the corporate culture of the organization on the composition and formation of teams, as well as on the process of creativity itself, is enormous. Typically, several groups with different leaders are formed in organizations, and, depending on whether they can agree, to unite around a common goal or not, these teams either stay in isolation, or actively work on the overall result.

This is especially noticeable in those structures that were formed quite aggressively – through absorption. Weakly built integration processes have led to the loss of not only strong leaders, but also strong teams. People who came to replace them, could be professionally prepared not worse, but, having dropped out of the company's culture, they could no longer "play" in the general team. The new corporate subculture that arises in this background does little to help "play" and "work for the outcome". In addition, the presence of old and new charismatic leaders who are struggling for influence in the company, negatively affects horizontal connections, the overall performance of work.

**Recommended literature:** [6; 35; 37].

## **Theme 9. Integral intelligence as an object of management in creative management**

### **9.1. The types of intelligence as an object of management**

Research of scientists has shown that a person can have two (R. Cattell), three–four (R. Sternberg) – up to several dozen types of intelligence. J. Guilford has identified about 120 types. Initially, the following types of intelligence were distinguished [24]:

- 1) verbal (linguistic);
- 2) creative;
- 3) pragmatic (practical).

Subsequently, they discovered two more separate types: the capacity for erudition (crystallized intelligence), the ability to analyze – the "current" intelligence. Then they added social intelligence. At the same time, scientists have drawn the following conclusion: the development of a particular type of intelligence requires its own methodology. Let's consider the basic existing types of intelligence.

*Physical intelligence* is the work of the brain complex, which controls any physical activity: both external and internal. Almost all programs aimed at increasing the level of development of mental abilities, ignore the physical intelligence. But real life does not allow a person to ignore it. Our body takes an active part in all our activities. The structure of almost all types of human activities includes the physical component. Many believe that physical and intellectual are incompatible concepts. It is believed that mainly athletes cannot boast of mental abilities, neither can highly intellectual people demonstrate physical strength. But there are situations when the body of a person understands faster than its consciousness. Our body also has memory, it can also take quite serious decisions. Psychologists at the Mount Zion Clinic in San Francisco found that human consciousness needs about 0.4 seconds in order to capture a new phenomenon. While the body can give an assessment of the current situation, calculate the trajectory path and the rate of reaction in response, all of it spending less than 0.1 sec. Thus, the body reacts 0.3 times faster. If you pay due attention to the development of physical intelligence, then you can find some abilities:

- to quickly navigate in unforeseen situations;
- to increase the productivity of activities without high energy costs;

- to master physical skills, almost without making mistakes;
- to work longer, without much loss, to withstand stress or any disease.

*Sensory intelligence* is a person's ability to perceive their own feelings and to respond to the feelings of other people. To be successful, you need to develop self-awareness (the ability of a person to come into contact with oneself), receptivity (the ability to carefully and with high sensitivity perceive the emotional state and feel the surroundings); be able to manage emotions (help to understanding in advance how a person will react to any events, and prevent negative consequences). With this skill, you can reach the very bottom of the emotional source: these are emotions that supply a person with different motivations, through which a person overcuts the dark lanes of life; and to establish a positive relationship (if a person has this ability, then it has the right to rely on the fact that its colleagues or simply acquaintances will be warmly reminded of it). The following abilities based on the sensory intelligence will help you succeed:

- the ability to understand what the surrounding people feel at the moment when a business meeting is under way, when dating, when family quarrel is at its peak;
- the ability to find a common language with people around you: team members, colleagues at work, superiors, technical staff, clients, suppliers, etc.;
- the ability to become a person who sympathizes with others and tries to help in achieving the desired;
- the ability to feel comfortable and relaxed when communicating with others: with a stranger who walks alone and at a crowded party where you can meet people from different social strata;
- the ability to take the position of a leader, persistently go to the goal, based on the support of nearby people;
- the ability to act as an arbitrator in order to eliminate differences between colleagues at work, who hinder the completion of the assignment in due time;
- the ability to rely on emotions and trust;
- the ability to get rid of negative emotions: anger, envy, jealousy and despair;
- the ability to always look assembled and steadfast when you did not approve your topic of research or when you were notified about lay-off;
- the ability to remain cold-blooded in any situation;

- the ability to continually work on their organizational, leadership and communicative skills.

*Creative intellect* is the ability to develop new ideas, to seek out unordinary solutions to various problems. Creative intelligence allows for:

- intensification of the moments of enlightenment;
- putting everything to their places at the time when everything is going on in a lifetime;
- outsourcing rivals to business using new technologies;
- intensification of the process of creative thinking at any time and anywhere;
- differentiation between the effective ideas and the *idée fixe*;
- solving problems at the expense of creative abilities.

*Social intelligence* is the ability of people to understand and predict the behavior of other people in different life situations, as well as to be able to recognize feelings, intentions and emotions in their verbal and nonverbal qualities [39].

## 9.2. Formation of integral intelligence

The effectiveness of research is largely determined by collective activity. Not all problems can be solved individually. It is determined both by the complexity and the methodology, which sometimes requires a variety of intellect, education, and psychology of researchers. But collective activity of researchers also has its own criteria of efficiency and under certain conditions may be less effective than individual research work.

Weakness of the individual's intelligence is self-reflection, that is, the inability to exercise self-evaluation, the definition of characteristics of their own intelligence, self-analysis, tracking the process of creativity, self-control, determining the significance of their own research results, the inability to objectify themselves.

But collective intelligence can only happen when it is formed on the basis of the principles of scientifically grounded collective intelligence formation, when a system of connection of abilities and qualities of individuals based on certain features, rules and goals is realized and implemented.

The highest degree of formation and functioning of collective intelligence is the integral intellect, which reflects the organic connection of abilities

and intellectual potential of researchers, the synergistic effect of intellectual activity, the effect of complementarity and mutual reinforcement.

### **9.3. The principles of the formation of integral intelligence, the concept of integrity**

To characterize the degree of integrity and unity of the group, researchers use a variety of concepts: cohesiveness, workability, compatibility, organization, effective group emotional identification, etc. Let's dwell on each of them in more detail.

Cohesiveness (value unity) is the unity of the members of the contact group in the ideological and political, moral and ethical sphere, the community of socially useful goals, moral values, motives of activity; following collectivist norms of conduct.

Organizational unity is the unity of the members of the contact group in the field of organization; the presence of a reputable and efficient center, the ability to independently and effectively distribute roles and responsibilities in the absence of an official head.

Workability (professional and business unity) is the unity of action of members of the contact group in the process of performing labor, socio-political and other activities, the presence of group skills, that is, the formed skills in joint activities that provide the maximum possible productivity.

Intellectual unity is the ability of the contact group members to quickly and successfully find a common language, come to a common opinion, jointly solve problems.

Emotional unity is a pool of experiences of members of the contact group in significant situations, an emotional response to each other's mood, mutual emotional support.

Stress resistance (volitional unity) is the ability of members of the contact group in complex stress situations to mobilize and act successfully as a single social organism.

The basic principles of the formation of integral intelligence, and, consequently, the joint work, are [67]:

1. The principle of scientific equality – free expression of ideas, thoughts, assessments, sentences, hypotheses. The formal characteristics of a person – age, position, rank, degree, etc. are not taken into account.

Significance, value, truth and practical applicability of ideas should be evaluated irrespective of who and under what circumstances they are expressed. It is impossible to associate the value of an idea with its source.

2. The principle of advisory group. Everyone should have the opportunity and the duty to be a consultant in the field of knowledge and activities in which he has developed his abilities to a maximum. A consultant is an assistant in the development and correction of the idea. In a joint research, a free choice of consultants is required.

3. The principle of creative activity. It consists in giving everyone the right to creative activity. You should not seek to transform a person into an executive task of a scientific supervisor and limit his ability to experiment.

4. The principle of resource organization, distribution and combination according to the purpose, structure, size and, most importantly, time parameters.

5. The principle of constructive criticism. In the group work criticism is possible and useful. It promotes the search for new arguments, refining the wording, adjusting positions, enriching the search. But criticism can be different. Ambitious, inexcusable criticism, the transfer of critical remarks to the idea of a person, his statements, criticism killing initiative and enthusiasm is unacceptable.

The peculiarity of constructive criticism lies in the fact that it is built on the proposal of new approaches, adjustments, changes, additions rather than bare denial or destruction. The demands of constructive critique, as a rule, knock down the inclination for ambition. It's always easier to deny something than to argue.

6. The principle of combining local and general discussion of problems. One of the most important features of integral intelligence is the manifestation of individuality in the general work, the harmony of individuality and collectivity. This is exactly what must be achieved when constructing the technology of integrated intelligence activity.

7. The principle of imaginary experimentation on false, absurd, questionable variants of decisions. The technology of research should act on the false idea, fantasy. After all, mistakes and fantastic, at first sight, options sometimes give an impetus to the search and definition of rational decisions.

8. The principle of minimum control, which is necessary for all kinds of adjustments of research technology, for feedback and interconnection of various activities, but it can and should not be a deterrent to creative activity.

9. The principle of formation of psychological comfort of research. In the activity of integral intelligence, there is the concept of warming up. This is an important stage of activity that contributes to the formation of a certain atmosphere of work, the swinging of thought, the removal of psychological limitations, the motivation of the search, creativity, independence.

#### **9.4. The methods for estimation of integrity**

The assessment of the degree of integrity of a group is carried out with the help of socio-psychological diagnostics, whose purpose is to raise the effectiveness of personnel through the prevention of conflicts, to enhance team cohesion and support the main elements of the company corporate culture. It is expedient to conduct socio-psychological diagnostics of the team in order to:

- optimize the processes of interpersonal interaction of the company employees;
- identify the sources of socio-psychological tension, the causes of repeated layoffs of employees and reduce the possibility of conflicts in the team;
- identify the weaknesses in the team's activities and increase the efficiency of its operation;
- assess of the effectiveness of the personnel policy.

Socio-psychological diagnostics makes it possible to evaluate:

- the readiness to work together;
- the group cohesiveness;
- the presence of group and informal leaders;
- the causes of the origin and source of socio-psychological tension;
- the schemes of interaction and information exchange between the divisions;
- the duplication of functions, functional intersections;
- the socio-psychological climate in the team;
- satisfaction with work and the main motivators of activity;
- the individual personality features of the evaluated employees and the forecast of behavior in the future [42].

To obtain reliable information during the diagnostic study, it is necessary to use at least two different techniques to compensate for possible errors



and obstacles associated with one specific method (for example, the probability of receiving socially desirable responses). In addition, different methods provide either qualitative or quantitative data complementing the results or data mutually corroborating each other, which is used to test different information and to adequately interpret the results.

In domestic psychology, there are several methodological principles for studying the group. According to K. K. Platonov [81], the most important of them are the following:

1. The principle of activity in the study of small groups which is characterized by:

- understanding of activities as a joint group, while distinguishing the forms of organization, the level and content of joint activities;
- consideration of the group, its phenomena in the context of the joint activity of individuals (as the object of research is real social rather than laboratory groups, since it is in them that interpersonal relations are revealed to the full);
- understanding of the group as a cumulative subject of activity (accordingly, its attributes are studied – group needs, motives, norms, values, etc.);
- interpretation of joint activity as the basis of group development.

2. The principle of systemacity which implies:

- search for specific group (systemic) neoplasms (group norms, values, goals, decisions, etc.);
- studying their influence on individual behavior;
- obligatory correlation of individual characteristics of the group members with the activity group context;
- accounting for the presence in the group of particular integration factors that ensure the preservation of its qualitative peculiarity, normal functioning and development;
- the need to interpret the processes observed in the group, and relations as multilevel and multidimensional phenomena;
- consideration of the group as an open system operating in time;
- taking into account the two spheres of the group life: business (instrumental) and socio-emotional (interpersonal);
- emphasizing the relationship and mutual influence of group phenomena;

- the inclusion of a probabilistic factor in the analysis of the laws of the group process, the understanding of the complex (system) determination of the phenomena of group life.

3. The development principle which includes the following points:

- the development of a social group conditioned by the development of the joint activities of its members;

- uneven development of the main spheres of the group life in connection with the specifics of the problem to be solved and with the peculiarities of the organization of its members;

- search and study of the mechanisms of group development;

- the movement of the group in a wide time range considered, first of all, in relation to the future;

- identification of possible regressive tendencies at different stages of the group life.

These methodological principles are interrelated and in different periods of group life have a different weight in explaining, forecasting and constructing the processes that occur in it.

Practicing consultants desperately need methods for diagnosing and evaluating the effectiveness of working groups and teams that would be fairly simple, economical and would not require excessive time spent on conducting them, as well as data analysis methods that allow quick and efficient analysis of the information received. Thus, in particular, the diagnostics of the team allows, on the one hand, obtaining an integrative representation – a team portrait – and improving the technology of team building, including the development of information, methodological and procedural support, and on the other hand – achieving maximum effect from team formation by minimizing the number of errors on the implementation stages and thus considerably expanding the scope of the application of the team-building technology.

The classification of the methods for diagnosing a small group and/or team is based on the following five key aspects of intragroup relationships.

1. The social aspect of the group life (interpersonal relations and communication: trust and cohesion).

2. The business aspect of the group life (the structure of functional distribution of roles, attitude to work, productivity, decision-making).

3. The system of relations "individual – group" (individual group perception, norms, values, leadership and subordination, management of the group, conformism and conformability of an individual).

4. Group development (assessment of group development as a team).

5. Socio-psychological climate in the group (SPC).

The first group of methods may include:

- the method of sociometry;
- the Q-sorting technique;
- the method of diagnostics of interpersonal relations by T. Leary, various kinds of scale (for the definition of psychological closeness, for the measurement of communicative distance, for assessment of hostility and acceptance of others);

- the methods of research of group cohesion (for example, the method for determining value-orientation unity (VOU), groups of A. V. Petrovsky, V. V. Shpalinsky) and many others.

Particular attention should be paid to the methods of diagnosis of interpersonal compatibility. For example, the questionnaire for interpersonal relations developed by W. Schutz – FIRO-B questionnaire. The questionnaire is based on Schutz's theory of three basic needs that underlie communication:

1) inclusion – the need to create and maintain satisfactory relationships with other people, on the basis of which interaction and cooperation occurs (attention, recognition, popularity);

2) control – the need to create and maintain a satisfactory relationship with people, based on control and force (strength, influence, authority);

3) affection – the need to create and maintain satisfactory relationships with others, based on love and emotional relationships. FIRO-B makes it possible to predict the individual's behavior in interpersonal situations, to predict social interactions, to evaluate interpersonal relationships through the definition of interoperability, the ratio of "costs" and "revenues" in relationships that prefer the intensity (frequency and change) of the contact characteristic for the individual/group. FIRO-B can be used when selecting frames, when creating working groups, especially in those cases where members of the groups are dependent on each other, in the analysis of group dynamics, in the elimination of interpersonal conflicts in the group.

The second group of methods consists of the following:

1. Methods and techniques of diagnostics of the functional role positions in a group (team). Investigation of the team roles is an important component of the diagnosis of both the team as a whole and the design of the team formation process.

Diagnosing team roles is possible by different methods and with varying degrees of accuracy. Firstly, this is the diagnosis of settings, when individual preferences and general settings for team work and cooperation (motivational and value aspects of competences) are determined with the help of questionnaires, self-reports, biographical interviews, interviews on the analysis of behavioral examples. Secondly, the diagnosis of abilities, allows you to assess the intellect, the level of development of critical and creative thinking, personal orientation. Finally, the qualification of behavior when assessing the readiness and ability to perform a role through situational-behavioral testing, business games, observation in real activities, the organization of assessment centers.

Often for this purpose, practice consultants use the role approach and relevant questionnaire of self-perception by R. M. Belbin, which was designed to assess the compliance of the participants with their team roles. The highest score in the team role indicates how well the respondent can fulfil this role in the management or design team. Such a command role, to which the individual responds as much as possible, is called the main one. The next after the highest result denotes a supporting role to which the individual must switch if his main command role for any reason is not needed by the group. Finally, the two lowest team-role points identify possible disadvantages. In this case, the manager can find a colleague who has the benefits that compensate for these shortcomings.

2. Scales for analyzing the structure and quality of working relationships that allow you to compare real and ideal working relationships in an organization and determine the type of these relationships (adaptive, medium-adaptive and disadaptive).

3. Test-questionnaires to determine the style of leadership, of submission, of management decision-making. These include:

- the methodology of A. L. Zhuravlev for the definition of leadership styles, which describes three basic (policy, collegial, promotional) and five intermediate leadership styles;
- the design methodology for determining the style orientations of the head behavior by A. A. Yershov;

- B. G. Wilson's questionnaire "The Cycle of Management Skills", which allows you to analyze six consecutive phases of the manager's activity (explanation of the purpose, planning, creation of conditions, feedback, control, promotion);

- the method for determining the styles of making managerial decisions by E. V. Markova, which makes it possible to describe situational, authoritarian, marginal, implementing and assertive decision-making styles of the leader;

- the methodology for determining the subordination styles by M. E. Raskutmandrina, which determines situational, manipulative, marginal, normative styles and the style of businessman.

4. Methods of diagnosing role conflicts. Despite the fact that organizational psychology has a sufficiently large arsenal of organizational-psychological methods of diagnosis and intervention, the problem of methods for the diagnosis and regulation of role conflicts in an organization and organizational behavior remains extremely relevant.

Sociometry, as a method for studying socio-psychological positions in a group, distinguishes the following roles in the system of group and interpersonal relations: leader, star, indifferent, one that is not accepted, and to identify conflicts, based on the peculiarities of relations between people occupying various positions. Particularly interesting results are achieved through combined use of the methods of diagnosis of functional and role positions and the method of T. Leary, focused on the diagnosis of interpersonal relationships and personality characteristics, essential in the interaction with other people. This combination produces meaningful material about the causes of conflicts.

With the help of T. Leary's method, it is possible to detect inconsistencies in the representations of interaction partners for certain social roles, which ultimately provokes conflicting interaction. However, in this case, it is necessary to modify the instructions to fill out the questionnaire by inputting roles from which positions the interaction takes place.

The following methods and techniques can be categorized as specific methods for measuring role conflicts. Their essence is that they were specially created and formalized for the study, measurement, diagnostics of the role conflict and the degree of its expressiveness. The scale of the role conflict in the activities of the head of a hierarchical management system by S. I. Yerina is specifically designed to diagnose the extent of the role conflict

in the activities of the manager and makes it possible to divide the managers into high conflict, non-conflicts and mid-conflict ones in a situation of competing claims, expectations as to the social role of the head.

Another group of methods is not intended specifically for measuring role conflicts, that is, the so-called nonspecific methods that, while aimed at the analysis of social roles, the role structure of interaction under conditions of group activity, the measurement of the "I"-stands and other phenomena can be used to identify individual indicators characterizing the range of roles of an individual and their role conflict. All of these methods are detailed in the literature and can be used both as psycho-diagnostic, and active methods for changing the role behavior.

The third group of methods makes it possible to assess the specificity of relations in the "individual group (team)" system. In this regard, it is necessary to determine the personal characteristics that affect the organizational and group behavior of an individual. These include: the aspiration for power and authoritarianism, social sensitivity and Machiavellianism, locus of control, focus on achievements, predisposition to risk, dogmatism, emotional stability. All these characteristics can be diagnosed with a wide range of techniques and scales developed in modern psychology (for example, the scale of Machiavellianism by V. V. Signakova, the questionnaire by G. Schubert for the definition of the severity of risk, the test for the diagnosis of affiliation motives by A. Mehrabian, the scale of D. Rotter's for definition of the level of subjective control, the test of self-monitoring by M. Snyder, etc.) [81].

The process of team diagnostics can be based on a typological approach, according to which it is necessary to provide the group/team, if possible, with different psychotypes. Diagnosis of the psychotype of potential team members (project team) is carried out using the following procedures.

1. Self-diagnosis of the psychotype may be the starting point of the study. It is conducted in a group form. Potential members of the team report information on the main psychotypes (as a result, a model is created which can help understand the features of each other in the future), offer small tasks aimed at updating the necessary experience.

2. The use of questionnaires (Keirsey, Myers-Briggs Type Indicator (MBTI), which makes it possible to determine the psychotypes of team members (16 psychotypes or four basic psychotypes by D. W. Keirsey).

3. It is expedient to use a biographical interview in the case of forming a team working on high complexity tasks, where it is necessary to exclude possible risks related to the human factor. At the heart of it, there is the idea

that the human psychotype is formed in the early childhood. A biographical interview allows you to determine which psychotype was peculiar to a person from the beginning, how it was transformed during the life story, how much a person feels comfortable in the current state, to help deal with current conflicts and life priorities.

4. Situational-behavioral testing – a short standardized assessment procedure, in which experts assess the quality of human behavior in problem situations.

On the one hand, it is believed that the psychotype of a person is quite constant. The psychodiagnostic information about employees of functional units can be completed with different design groups, while maintaining the heterogeneity of their members.

The fourth group of methods includes methods designed to study the peculiarities of group development. Group dynamics is the development or movement of the group in time, which occurs due to the interaction and relationship of the group members, as well as under the external influence on the group. The level of development of the group depends on the effectiveness of its members. As an example, the Pulsar test is intended to assess the level of group development based on the analysis of its socio-psychological states and to predict the success of the activity. The results of the survey of each member of the group can be judged based on the degree of their sustainability. The methodology makes it possible to evaluate such groups of states as readiness for activity, orientation, organization, activity, cohesion, integrability.

Finally, the fifth group of methods consists of methods and techniques for studying the socio-psychological climate (SPC) of a group/collective. For example, a well-known method by A. N. Lutoshkina "Tsvetopis" is based on the observation by the team members of their emotional states and the assessment of the collective emotional atmosphere of the team in a certain period of time with the help of color symbols. The questionnaire of F. Fiedler's research on the psychological atmosphere in the team is also actively used (adaptation by Yu. L. Khanin, 1976) as well as the express methodology for assessing the socio-psychological climate in the workforce (O. S. Mykhaliuk, L. Yu. Shalit ), which helps to identify the emotional, behavioral and cognitive components of the relationship in a team [42].

**Recommended literature:** [24; 67; 81].

## **Theme 10. Team building in creative management**

### **10.1. The approach to understanding the term "team"**

A creative organization is an organization that is constantly modernized on the basis of continuous education of all its members and the development of their creative activity. An organization becomes creative thanks to creative personalities, first of all, creative managers who are able to search and support talents, to innovate. Douglas McGregor, in particular, believed that creativity is present in virtually every person and that they should rely on managers, building the future of their organization. He put forward the idea that even an average person can reveal a high level of imagination, ingenuity, which becomes the basis of creativity. In this case, creativity is expressed not so much in the critical attitude to new ideas from the standpoint of their own experience, but in their willingness to perceive them. Whether the creativity of a person is revealed or not, depends on the conditions created in the organization directly by the work of managers.

Creative organizations have the following benefits [74]:

1) they make it possible to use as much as possible the aspirations of creative workers for innovations and initiatives and to transfer management decisions to a lower level of management;

2) small mobile groups in them have better opportunities for interactive communication of creative personalities based on specific motivational orientations and moral values, thus creating mutual trust;

3) they reveal the talent of the manager as a professional and innovator.

According to Peter Senge, there are five factors that make an organization more creative:

- development of the culture of strategic thinking;
- management of knowledge and development of creativity of personnel;
- stimulating the development of personal skills of managers and professional staff skills;
- the ability to see prospects and create favorable conditions for talented employees;
- maintaining new ideas, introducing innovations and timely changes.



Creative organizations are becoming the most competitive ones on the world markets. They rely on the inextricable link of the underlying processes – labor, learning and organization, and create conditions that provide a continuous flow of creative ideas [74].

The time of simple, populist decisions, the time of talented politicians and single managers, the time of traditional methods of collective decision-making irrevocably goes into the past. In the 21st century, leadership goes to those politicians and managers who realized that a high level of professionalism does not guarantee success. The future belongs to professionals united into creative teams that develop creative potential of a person, can continuously generate business ideas and make nonstandard managerial decisions. US corporations have been paying close attention to the work of creative teams in the latest 5 – 7 years. Their work is associated with their future competitive advantages.

Management and business problems are so complex that solutions to them cannot be found by a single, even talented leader, the purpose is to create collective intelligence. The collective brain of the organization is a team that develops and implements decisions to help the organization overcome a crisis and ensures its steady and competitive development. The manager who knows how to create a team and treats it as a collective brain will be successful.

The term "a creative team" may have different meanings. It is important to understand the following principles of team formation [47]:

1. A team is composed of professionals representing different fields of activity (economists and designers, marketers and industrialists, human resources and informants, etc.) and speaking different (specific to each sphere of activity) languages. Therefore, it is impossible to ensure the effective work of a team without the development of a unified language for all team members, based on the key concepts of the theory of management, the theory of organization and economy (with elements of financial and managerial accounting).

2. This should be a team of like-minded people which is achieved if:

- the participants produce and clearly record the ideology which they are going to follow when carrying out their activities;
- they formulate and agree on their own personal, group and production goals of the team;
- the participants themselves create a system for assessing the contribution of each employee as a result of team work.

3. The main tool for solving any problem situation is the process of integrating knowledge from different spheres of activity and bringing it into the system in the process of constructing multidimensional models of various phenomena and processes of our lives. Therefore, each team member must have a research unit of several sciences and be able to integrate knowledge from mastered areas of work when working on various projects and programs.

4. Team members must be able to construct effective communications between themselves, which allows everyone to contribute to building a multi-dimensional model of the problem situation. So, if a team consists of ten people and everyone is able to integrate knowledge from two or three areas of activity, then the result can be a 20–30-dimensional model of any situation.

5. Team development is the process of mastering more advanced tools of individual and team mental activity, which makes it possible to consider, rank and optimize an increasing number of factors when making decisions. This means deeper than competitors', comprehension of a competitive situation and more reliable forecasting of the future situation. At the same time, the risk of implementing the projects and programs developed by the team is sharply reduced.

6. A team must be seriously motivated to obtain a concrete, clearly measurable result of its activities.

7. Due to the complexity of the formation, development and training of creative teams, they must be permanent and systematically work with the reserve (in case of the loss of one or more team members).

8. A team can work for a concrete result only if it is responsible not only for the development of projects and programs, but for their implementation as well. The current practice is extremely ineffective, when scientists in the framework of a temporary creative team, are developing a project, and decision-making in the course of project implementation is entrusted to a very inexperienced official or manager. In this case, there is a collective irresponsibility: the official says the project is bad, and designers, on the contrary, say that the implementation of the project is poorly organized.

According to O. Ye. Kuzmin and O. O. Horiachka [82], creative teams can be formed as various organizational entities, namely:

1. In the form of temporary committees for solving short-term tasks related to the elimination of certain problems or development of local projects. The composition of such teams can be extremely diverse depending on the

goals of the operation and the set tasks. At the same time, such creative teams can be formed spontaneously under the influence of certain factors or on the initiative of individual employees of the management or management system of the enterprise. Typically, teams of such a format include employees of the enterprise who are experts in the field of solving the corresponding tasks, but external consultants can be also involved. At the same time, such committees, as a rule, do not appear within the organizational structure of management (in particular matrix), since they have a temporary working nature. Participants in such creative teams can be encouraged by bonuses or certain career perspectives in the event of successful implementation of specified tasks.

2. In the format of permanent committees with the assignment of functions of an innovative and/or anticrisis nature. Such committees are an integral part of the organizational structures of management, and the composition of their members can constantly change under the influence of changing the nature of the tasks to be solved. As a rule, the staff of such a format includes employees of enterprises of different levels of management and professional orientation, which are stimulated on the basis of payment of surcharges and allowances. Temporary commercial bases can be used by external experts to assist in solving complex tasks. Collectives meet periodically (weekly), where they discuss and approve the proposals of their members and define new tasks.

3. As a full-fledged separated subdivisions of the company which perform functions for the development and implementation of innovative projects and organizational changes. Such teams engage specially recruited workers. At the same time, the employees put forward the requirements for the necessary professional training, creativity, initiative, self-development, etc. Such creative units are usually set up by large enterprises in view of the economic opportunity to finance their activities. Departments of this format are agents of change in organizations, they are directly subordinate to the director, they have special powers, cooperate on information-analytical and consulting basis with all structural subdivisions of the enterprise, they can carry out various experiments, research and expertise within the various spheres of organizations.

4. In the format of external agent groups, which are involved in the management of the company to solve the problems or gain the objectives of innovation development. Such creative teams consist entirely of experts and

specialists of the companies involved (consulting, auditing, etc.), who identify problems at the enterprise, formulate ways to overcome them, outline directions and develop mechanisms for organizational transformations, etc. Such collectives are temporary in nature and function as the tasks are performed on a commercial basis.

Table 10.1 presents the main advantages and disadvantages of the methods of team formation [3].

Table 10.1

### The advantages and disadvantages of team formation methods

Team formation method	Advantages	Disadvantages
Best of the best	<ol style="list-style-type: none"> <li>1. Well-known workers who have experience working with similar problems.</li> <li>2. Managers have experience working with the proven staff who know the problems of the organization</li> </ol>	<ol style="list-style-type: none"> <li>1. The loss of a key linear manager, that is, the best of the best, can damage the underlying business.</li> <li>2. The threat that employees (the best of the best) will not be able to abstract from the main market to create something new</li> </ol>
Teams of rough diamonds	<ol style="list-style-type: none"> <li>1. Employees who think in a new way</li> </ol>	<ol style="list-style-type: none"> <li>1. There is insufficient discipline for developing new ideas.</li> <li>2. Insufficient authority to influence the distribution of internal resources</li> </ol>
Members of a team from the school of experience	<ol style="list-style-type: none"> <li>1. Managers who have passed the school of experience can identify new business areas.</li> <li>2. Skills and intuition, through which you can succeed in fulfilling tasks</li> </ol>	<ol style="list-style-type: none"> <li>1. Skills acquired by managers in advance may not be applied to new activities, depending on the "subjects" they studied or did not study in different schools of experience</li> </ol>

Sometimes companies try to bring together the best of the best. This method has an attractive look: such employees are versed in the problem, and managers have experience with them. However, the best of the best, as a rule, are important details of the central mechanism of the corporation, and although the working mode can be maintained with the help of a reserve and well-established structures, the loss of a key linear manager can be extremely damaging to the underlying business.

And in general, to create something new and to establish a relationship in a new team, they are not likely to be able to abstract from the main market.

## 10.2. The principles of forming a creative team

The problem of forming creative teams is very complex and requires a certain scientific approach, which implies the implementation of the following principles [31, p. 54–56]:

1. The principle of heterogeneity, in other words, the differences of typological features of creative potential and personality. It is desirable that the collective intelligence be more fully represented by the different types of creative individualities, namely:

- a pioneer (trouble-shooter), able to see and formulate the problem before others see it. He can do this even when many other situations do not seem problematic. He is able to think problematically in general, that is, to look for contradictions in everything;

- an encyclopedia, who quickly finds analogues of this problem in various fields of knowledge. This allows the team to make a comparative analysis, to define the paradigm of solving the problem, to build hypotheses, to form nontraditional approaches, to motivate scientific polemics;

- a generator of ideas, or a conceptualist, selecting and integrating many ideas for a particular purpose. This is a person who can construct a concept that allows you to combine many ideas and, consequently, types of research. As a rule, the concept has significant organizational potential;

- an enthusiast – sometimes he is considered or called a "fanatic" of the idea. This is a person who charges others with optimism and confidence in the success of the study, achievement of the result;

- a sceptic – sometimes he is called a "bore" – who doubts the success of any undertaking and plan, restraining others in ill-advised actions and in making speedy decisions. It can protect against adventurous actions;

- a predictor, whose function in the collective intelligence is to predict the consequences as accurately as possible, to feel the tendencies, to calculate all possible variants of the development of events;

- an informant who in the system of collective intelligence very often uses the principle "overtake without overtaking". He collects and classifies information and, prevents from reinventing the wheel, going over old ground, promotes the search for new solutions to a problem;

- an aesthete, looking for sophisticated ideas and solutions. He can play a very constructive role. His main criteria are beauty and harmony. There

is such a statement: "The concept or decision can only be right when they are beautiful." Of course, "beauty" is not a scientific concept, but the practice of life shows that this concept is not so far from science, as it sometimes seems. A successful idea or thought is always beautiful, it brings aesthetic pleasure to a person;

- a psychologist – necessary for creation of a certain psychological atmosphere for the researchers. At the same time, he is not only involved in dealing with the psychodiagnostic tasks, but also designed to provide a certain comfort, necessary for the work of collective intelligence. It is not only the atmosphere of cooperation, mutual understanding and goodwill, but at the same time the atmosphere of search, enthusiasm;

- an independent one, who most often works and loves to work individually and independently at the same time studying other people's ideas, but looking for their own ones. He works alone, but makes a significant contribution to joint activities and results. He often presents his ideas unexpectedly, and at the same time, he is stubbornly annoying, but this makes him think and go deeper into the problem;

- a translator – a person who is capable, by virtue of his qualification, experience, peculiarities of thinking, level of education simply and efficiently, but at the same time clearly explain the problem, solution, idea to specialists of different branches of knowledge;

- a developer, inclined to prove the results of the research up to the final and specific, practically implemented stage;

- an implementer, who "ties" the results of the joint work to specific conditions and seeks how to apply them to practice.

2. The principle of interoperability. It is an addition to the first principle. Its essence lies in the fact that for the formation of collective intelligence it is necessary to involve researchers who are inclined and able to work together even with those people who for some reason cannot impress them.

3. The principle of rational combination of formal and informal organization of activities which also determines the formation of collective intelligence. In creative groups, an informal organization often plays an important role. It provides the necessary liberality in the manifestation of abilities, creates an atmosphere of trust and benevolence, contributes flexible response to changes in creative activity, the emergence of new ideas.

4. The principle of permanence, in other words, the continuity and the unnecessary rhythm of conducting research, the inclusion of new problems, switching attention to new problems. This is the principle of the vital force of collective intelligence. It also includes the necessary rotation of researchers and research, contributes to the enhancement of creative potential.

5. The principle of imitation. It is the principle of assessing, using and motivating the ability to reproduce the approach and hypotheses of other members of the creative group. It is an opportunity to master the type of thinking of another person and, based on this, to assume, to predict what questions they can put, how to evaluate one or another decision, to draw attention, first of all, to which arguments are to be put forward.

### 10.3. The strategies for setting goals in team formation

An important component in the process of integrating people into a team is to determine the overall purpose of their activities. At the same time, the purpose should not be general, that is it should meet the interests of all members of the team, and can also be achieved. The study of the process of setting goals in the activities of creative teams, makes it possible to identify certain strategies that have their advantages and disadvantages. The analysis of the strategies for defining goals is presented in Table 10.2.

Table 10.2

#### The strategies for forming the goal of teamwork

Strategy	Example	Advantages	Disadvantages
1	2	3	4
1. The purpose as refusal from a problem state	"We do not want to behave more like that, we do not want to be more ...", "Our company is no longer going to be content with the role of an outsider"	–	Attention is focused on the problem state rather than on the desired one. There is no answer to the question: "What do we really want?" The process of achieving the goal at the same time is a move from something, but not to something

Table 10.2 (the end)

1	2	3	4
2. The use of the external model as the basis for determining the desired state	"We want to be like ...", "Have you seen how X works? This is a team!"	This strategy helps to divert attention from the problem state and quickly build a high-quality model of the desired change	Such a statement of the purpose may cause unreasonable expectations, and also cause the inconsistency
3. A general purpose	Expansion of existing resources in the company: "We want to be more ..."	–	A way out of the problem field, awareness of already existing positive opportunities. Instead of dealing with the difficulties and disadvantages – striving to act even better, more efficiently
4. The frame "as if"	"We act as if we have already attained the desired state and found out what factors prevent us from reaching it right now"	At work, attention is concentrated at once on both poles of the task: on the desired condition and on the restraining factors	–

There are certain rules for setting goals:

1. Positive wording. The purpose should not be formulated in terms of denial: "We do not want that". Therefore, the formation of a team is, "joint creativity of a group of people to achieve a single and important goal for all", rather than "the absence of internal conflicts".

2. Achievement of the goal must be controlled. This concerns the formation of criteria. For example, profitability does not apply to the criteria that depend solely on us, because it is a function of prices formed by a free market. By setting goals or by developing criteria that are beyond our control, we risk being trapped. Consequently, we must be sure that the formation of a team depends solely on the efforts of those who are engaged in solving this problem.

3. There must be clear and definite criteria showing whether the goal has been achieved or not.



4. The goal must be ecological. Ecology is one of the most important concepts in the strategies of setting goals, and they are often neglected, not taken into account. Ecology is the absence of negative consequences in achieving the goal. If the head aims to efficiently organize work, knowing that this will result in dismissal of half of the employees – this is a manifestation of non-ecology, and this decision will very destructively affect the overall atmosphere within the company. Unhelpfulness in achieving goals is rarely a forced measure and it cannot serve an excuse, because much more often it is only a lack of flexibility in thinking.

5. The goal should be in the right context. Under what specific conditions do we want our team to show itself as a cohesive team? Are there any conditions or activities that may even be harmful to our being a united team?

6. Achieving the goal depends on access to resources. When setting goals it is very important to be aware of what resources the company has for achieving the goal. What resources do you have for the leader to form a team? The availability of a full-time psychologist? Do you have the necessary funds to invite outside consultants? A time manager who can correctly formulate and control the task? Are there any resources to control the process of forming a team?

7. First steps to achieving the goal must be known. That is a very important moment of initiation.

#### **10.4. The techniques for group work in a team**

For more effective team work, especially at the initial stage of team formation, when its members only start a common activity, learn psychological features, etc. There are certain techniques that will make their joint work more effective, and the process of mutual adaptation less painful, fast and successful. Such techniques are presented in Table 10.3.

In this case, within the organization of positional dynamics, there are all types of roles. On the functional basis they distinguish:

1) the professional role (engineer, mathematician, economist, sociologist, physicist, lawyer);

2) the position (director, manager, head of department, senior engineer, junior researcher).

Table 10.3

### The techniques of group work organization

The name of the technique	The essence	The features of the implementation
1	2	3
Social psychological training	Applies to a team with a high level of development, with a well-established system of values, with a climate of psychological sustainability and trust	Socio-psychological training is used: <ul style="list-style-type: none"> <li>• as a method of forming a collective mind;</li> <li>• as an independent learning method;</li> <li>• as auxiliary technology of strategic thinking;</li> <li>• as a technique that provides the generation of new ideas in the mode of innovation search</li> </ul>
Group formation	It is carried out due to a number of operations, some of which become permanent techniques of the group	<ol style="list-style-type: none"> <li>1. Organize acquaintance of group members with each other and with a consultant.</li> <li>2. Suggest a group to start work and abstract from the real situation and factors that interfere.</li> <li>3. If the group digresses from the discussion of the task, the consultant reminds them of the necessity to determine which issues to discuss in the first place and how to organize their thinking</li> </ol>
Introduction	Formation of the group members' orientation to mutual understanding	<ol style="list-style-type: none"> <li>1. Remind the members of the group that they will work in the mode of collective mind not only on the content, but also on communicative problems.</li> <li>2. Invite each member of the group to participate.</li> <li>3. Organize team discussion of emerging issues, surveys, drawings and graphs, depicting them on the board</li> </ol>
Organization of cooperation	The basis of cooperation lies in the process of cooperation, the essence of which is a particular way of connecting individual actions for joint activities	<ol style="list-style-type: none"> <li>1. Specialized actions of participants in a certain segment of group work. In another section, the structure of specialization may be different.</li> <li>2. Coordinate these actions, then help establish communication between the groups, coordinate and streamline the actions.</li> <li>3. Integrate the individual actions of the participants into a single collective activity</li> </ol>

Table 10.3 (continuation)

1	2	3
		4. Determine the boundary of the situation. 5. Identify the trends of the situation. 6. Analyze the main factors of the situation. 7. For each member of the group determine their place in the situation and group work
Diagnostics	Diagnostics of interpersonal relations and their correction, obtaining "pictures" of interpersonal relationships, and in the case of multiple use – fixing their dynamics	1. Members of the group distribute sheets of paper on which they write their name (or the accepted pseudonym) and answer three questions: <ul style="list-style-type: none"> <li>• Which of the participants would be the best for you in one group?</li> <li>• Who would you like to work on the problem?</li> <li>• Who would you like to work in one production unit?</li> </ul> 2. The letters are collected and processed. 3. A group discussion of the received structure is organized
Reflection	Deeper self-knowledge of the participants, formation of a more correct idea of yourself, removal of tension between the members of the group, correction of personal deficiencies that interfere with effective communication	1. One of the participants is asked to divide a sheet of paper in half, to fix advantages and disadvantages. The rest of the participants do the same. 2. The material is processed, individual work is reduced. The content of the work under this procedure can be the assessment and self-assessment of a standard set of characteristics with the use of a seven-point scale for each of them. Such a set may include: <ul style="list-style-type: none"> <li>adherence to principles; justice;</li> <li>activity;</li> <li>self-criticism;</li> <li>horizon;</li> <li>the ability to lead oneself;</li> <li>organization;</li> <li>orientation to the new;</li> <li>the ability to see the perspective</li> </ul>

Table 10.3 (continuation)

1	2	3
		organizational skills; sensitivity; sense of humor; goodwill; respect for the dignity of others; keenness; authority; efficiency; competence; equilibrium; objectivity
Organization of communication	Revealing the style of communication of participants, forming the skills of role behavior, of spontaneity and flexibility in communication	1. Suggest a group or several of its members playing a situation. 2. Conduct a group analysis of the style, strategies and tactics of communication, show success and pay attention to the unsuccessful moves in communication
Autotraining	The formation of skills to manage their mental state, removing fatigue and tension	1. Include tape recordings of sea noise or very calm music. 2. It is more convenient for the members of the group to sit in the chairs with their eyes closed. You can put your head on the back of the chair or take the position of a coachman – the head is lowered, the elbows rest on the knees, legs are arranged quite widely. 3. Read the text in a calm, monotonous voice
Organization of positional dynamics	Identification of positions in the group and organization of work in accordance with the psychological characteristics of team members	1. Identify the functional positions of the participants, their perceptions of the possible roles in the group work, as well as their attitude to everything that is happening. 2. Organization of interpositional interaction, for example, discussions of participants who have expressed a desire to solve problems, with sceptics, executives with executives, economists with technologists, etc.

Table 10.3 (the end)

1	2	3
		3. In the course of work, keep control over whether there is no important position for work 4. Organization of position change by participants. 5. Teach members of the group for meaningful position work

Depending on what role a person performs in group interaction it may be:

1) informative: an erudite (a generator of ideas), an analyst (a developer), a diagnostician (a simulator);

2) methodological: a methodologist (a programmer), a critic (a reflexive member), a consultant (a problemizer);

3) organizational: an organizer, a controller, a coordinator, a coach, an integrator, a manipulator;

4) socio-psychological: a leader, a non-perceived one, an independent member, an outsider.

Depending on how an employee prefers to do their job:

1) in relation to group work: leading, sympathetic, promoter's, neutral, led, indifferent, interested, counteracting;

2) in relation to novelty: an innovator, an initiator, a conservative.

There are quite a lot of methods that allow you to choose from the set of proposed professionals, those who can really perform the functions of generators, analysts and other positions.

Below are the methods that are implemented in the production environment:

1. No choice. All specialists, highlighted by the leadership or those who independently expressed the desire to participate in the collective generation of ideas, put forward ideas, and then they all analyze them together.

2. Random selection. In this way, the selection of specialists for work is distributed without analysis on the basis of random selection (for example, in alphabetical order).

3. Age selection.

4. Choice according to the characteristics of the manager.
5. The choice of work experience.
6. The choice based on the results of previous work.
7. The choice based on psychological testing.
8. The choice based on the results of real activity.
9. The expert choice.
10. The choice based on self-esteem.

**Recommended literature:** [3; 6; 31; 47; 74; 82].

## **Theme 11. Motivation of the creative type of personality**

### **11.1. The motivational mechanism in innovative activity**

At the basis of the motivational process, there is an actualized need of a person, which prompts certain actions through which, in the person's opinion, the need can be satisfied. As a rule, within the organization, such actions are directed by the management towards the achievement of organizational goals.

In the scientific literature, the term "stimulus" is used in parallel with the term "motive" and often in the same context. However, there is a significant difference between them – while the motive is an intrinsic driver that causes the acts and deeds of the subject, the stimulus is more associated with the interference of external forces (factors) in the choice of the subject of management of a particular type of behavior. However, motivation as a process of inducing activity may include both motives and stimuli. Therefore, the authors agree with the interpretation of the term "motivation", offered by O. Vikhansky: "Motivation is a set of internal and external driving forces that encourage people to work, set the boundaries of the form of activity and direct this activity to the achievement of certain goals" [63]. And given the subject of the research, which is the innovative activity of enterprises, we can say that the motivation of creative activity is a combination of internal and external driving forces that encourage market actors to implement it, set the boundaries and forms of its organization, and direct this activity to the achievement of the goal.

## 11.2. The creative approach of a manager to motivation of the staff

Creative personnel is the totality of the company's workforce that produces new solutions, is susceptible to new ideas, endearing to the oddities, has the freedom to choose the problem and direction of research, has incentives for creativity, and is necessary for the fulfilment of functions, achievement of the goals of the enterprise and long-term development of the enterprise [23, p. 29]. However, it cannot be argued that the creativity of the enterprise is the sum of creativity of its employees. In this case, the global task of any company would be to search for the most gifted workers. However, creativity is at the core of all the components of the company. The true value for an organization is when it is systematized and subject to management and control [33, p. 42]. The position of the developers of the investment theory of creativity R. Sternberg and T. Lubart is worth noting. They believe that the initiation of the original program and its implementation in the work of an employee of an enterprise depends on the cognitive, personal and motivational resources of man, as well as on the environment [23, p. 201].

The classification of the components of creative resources of enterprise's employees according to the belonging of each of them to a certain creative resource is given in Table 11.1 [26].

Table 11.1

### The components of creative resources of an employee

Creative resources				
1	2	3	4	5
The components of creative resources of an employee	Cognitive	Personal	Motivational	Organization environment
	1. Knowledge	1. The point of control	Motivation of an employee to work	1. The capacity for to stimulative activity
	2. Opening of thinking	2. Assurance		2. Perception of the management of the employee individual characteristics

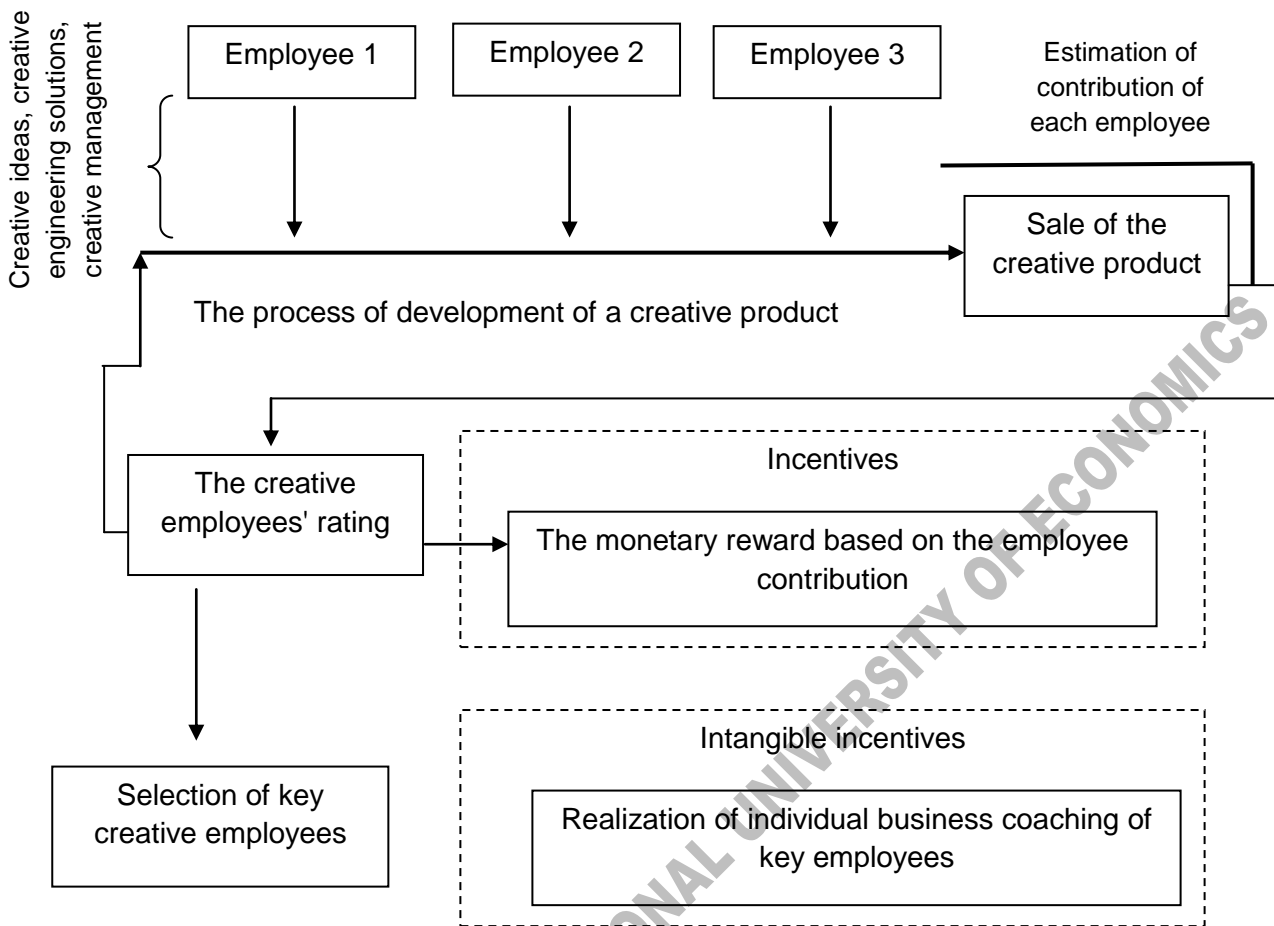
Table 11.1 (the end)

1	2	3	4	5
	3. Experience	3. Persistence	Motivation of an employee to work	3. Ensuring systematic training relevant to the employee's talent
		4. Emotional force		4. Encouragement of the employee creativity
		5. Independence		
		6. The ability to play		
		7. Audacity		
		8. Ingenuity		
		9. Bravery		
		10. Risk		
		11. Responsibility		
		12. Self-study		
		13. Self-analysis		
		14. Self-actualization		

Thus, we can conclude that the effective management of the process of developing the creativity of the company personnel involves the consideration of each component of the creative resources of the worker, associated with the conditions of the internal organization environment, cognitive, personal, and motivational features of an individual [26].

Let's consider the procedure for developing a model of motivation aimed at developing the creativity of the company's staff, proposed by D. O. Krykunenko. When designing an effective model for motivating creative workers, several key tasks need to be addressed. First, develop and implement a mechanism for assessing the contribution of each employee to the development of creative products in order to identify key employees whose creative ideas influence the creation of innovation; second, build a rating of the most creative workers; and third, develop a mechanism for using material and nonmaterial methods of stimulating employees for creative work. Thus, the model of motivation aimed at developing the creativity of workers, will have the form presented in Fig. 11.1.





**Fig. 11.1. The model of motivation designed to develop the creativity of employees**

According to Fig. 11.1, after completing the implementation of the creative product, there is a procedure for assessing the personal contribution of the employees involved in the creation of the creative product. This should be done through the development and implementation of a system of key performance indicators. The essence of this system is that the results of an employee or unit are described by three to five clear indicators that can be precisely measured or compared.

Evaluation of the contribution of each participant to the development of a creative product of the enterprise makes it possible to build a rating of creative workers based on the values of key performance indicators in order to adequately distribute remuneration for creative work and encourage the most creative employees. The review of creative staff ratings should take place after implementation of each creative product in order to obtain information on the dynamic changes that occur with the staff [26].

It must be remembered that the key to successful management is to never offend the talent and his creation. Criticize only constructively, giving an opportunity to express their own point of view, communicating on a parity basis. An agreement between the administrator and the team is necessary: everyone must understand the role of the other in the business process. Collectives, where such understanding is reached, are distinguished by the coherence of work, the predictability of creative processes.

People dealing with the development and implementation of new technology and products are distinguished among other categories of employees with a high level of education and intellectual development. They are characterized by analytical thinking, an increased sense of dignity, independence. Accordingly, the stimulation of innovation work has its own specific features, namely: the use of a large number of tangible and intangible types of remuneration, organization and psychological incentives aiming to meet the needs of the higher level; providing a stimulating process in the creative field on a regular, rather than one-time basis.

Thus, the basic principles of the modern approach to stimulating work in the creative sphere that the managers of organizations should follow are:

- maximization of the creative abilities of each individual;
- directing this activity towards the achievement of specific innovative and economic results.

The task of managers, in essence, is to create the conditions under which the creativity of the employees could be revealed to the greatest extent and they would have a steady need for intensive and productive work.

At the same time, it is important for the manager to take into account the situations in which the incentives are used, to consider not only the personal abilities of the employees, but also their personal motives: needs, interests, priorities. For this purpose, direct and indirect methods are used in stimulation, based on the following principles:

- display of creative initiative;
- correspondence of the encouragement of the employee with the final result of innovation activity;
- provision of personnel with the necessary resources;
- encouraging the accumulation of new knowledge and experience;
- expansion of informal communication (scientific communication);
- comprehensive support for innovation by the leadership of the organization and the state;

- simplicity and clarity of patent procedures;
- speed and publicity of applications for inventions;
- encouraging submission of both individual and collective proposals;
- the use of moral incentives;
- a combination of short-term and long-term incentive tools.

In order to accelerate the work on innovative projects, the administration of many enterprises considers it expedient not to restrict the stimulation to only scientists and designers, but to promote incentive measures for all employees. The administration believes that the more proposals, the more likely it is to get a really effective idea.

For example, Japanese companies have taken the decision to collect proposals from their employees about the possibilities to improve their activities, rewarding those who make such proposals. At the Nissan Motor factory, every idea is encouraged, without exception, but the size of the reward depends on the value of the idea. On average, Japanese workers make 24 proposals a year for their companies – ten times more than in the United States [79].

In the practice of domestic enterprises, monetary remuneration remains a significant incentive for most employees. However, the use of this incentive by the management of the company may be complicated by the fact that when moving to a higher level of income the effect of substitution is triggered: an employee begins to lower the intensity of work; the readiness to work more with the increase of wages declines. A crucial point is insufficient time for rest, when for additional, even substantial pay, a person no longer agrees to work overtime and at weekends.

Nevertheless, the material factor plays a major role in stimulating the majority of employees. This is due to the fact that monetary rewards are considered not only in terms of their ability to meet the basic needs. Money significantly affects the ability to meet the essential needs, it also plays the role of a certain symbol, because it can provide a person with power, status and be a measure of success.

In particular, employees who seek to achieve certain goals, mentally fill a symbolic "tournament" table, which allows to track the amount of payment for your work and compare it with the rates of other people. In this case, money serves as a measure of the success of individuals. Money is used as a contribution to the introduction of its owner into a prestigious club (belonging to a certain group), it allows a person to influence other people, for

example, through donations to funds of political parties. Therefore, employees can strive to increase remuneration due to its social significance.

At the same time, people (especially creative ones) work not only for the sake of obtaining a monetary reward. Nonmaterial remuneration is of great importance for the majority of them.

Thus, remuneration is one of the most important incentives through which the management of the organization must encourage employees to increase their innovation activity. The implementation of the innovation process at the enterprise involves employees of different categories who have their own needs and labor duties, characteristics. The complex remuneration system should include various types of monetary and non-monetary rewards which are components of the external remuneration of the employees of the enterprise. In order to increase the motivation of employees (especially for creative activity), the management of the organization should offer them not only an external reward, but also create conditions for obtaining their internal remuneration. It is the use of various types of external and internal remuneration in the complex, which requires the management of the company to increase the innovative activity of employees.

### **11.3. The types of motivation of creative personalities**

Research has shown that internal motivation is closely related to productivity. In a study, scientists worked with two groups of children. The first group was provided with paper and paint and asked to paint a picture. The second group was told that if they painted a really beautiful picture, they would be awarded a sweet. When the received images were evaluated, the first group painted a more beautiful picture than the children of the second group. The scientific explanation is that the first group was directed to work for painting (internal motivation), while the second group was diverted to the idea of the award (external motives) and therefore did not give the painting enough attention to make something really beautiful.

Based on this, the principle of internal motivation of creativity may be formulated: people will be most creative when they feel motivated, above all, with their own interests, pleasure and the challenge of working as such rather than under pressure from outside.

Let's dwell on the main types of motivation in more detail, as they are described in the domestic and foreign literature, namely:

- internal – involvement in the work itself;
- external – remuneration for the performance of work;
- personal motivation – individual factors;
- interpersonal motivation – social factors.

Table 11.2 presents the matrix of the main types of motivation, as well as the advantages and disadvantages of managing the motivating factors for each quadrant.

Let's consider on the main fields of the matrix quadrants.

**Internal motivation.** There are four most important internal motivations for employees' labor:

- *a challenge.* Once in the late 1970s, a co-founder of Sony Akio Morita gathered his chief engineers. On the table in front of him, he put a very small block of wood. He told them that their task was to make an acoustic system not bigger than this block. At that time, it was a very difficult task – but it created the basis for the imagination of engineers and led to the implementation of Walkman (a portable audio player) in 1979. For creative people, the harder the better.

Table 11.2

### The matrix of the main types of motivation

		Personal	Interpersonal
1	2	3	
<b>Internal</b>	<p>In this sector, employees are motivated to enjoy the work itself, as well as to work with core values.</p> <p><b>Advantages.</b> This is the quadrant that has the greatest impact on the quality of work – without personal motivation or internal satisfaction from activities, employees of this quadrant will not be able to achieve outstanding results.</p> <p><b>Disadvantages.</b> Due to the too personal nature of this type of motivation, there is a danger that the results will be negligible in relation to other employees. And in the context of business, it is very important that people do not work on projects, only on the basis of their own interests and value systems, while losing sight of organizational goals</p>	<p>In this quadrant, employees are pleased to engage in social interaction with other employees.</p> <p><b>Advantages.</b> Founders who regularly interact with their colleagues, clients and/or audience are much more likely to produce something relevant and socially valuable.</p> <p><b>Disadvantages.</b> Social interaction carries the risk of neglecting its own interests and talents</p>	

Table 11.2 (the end)

1	2	3
<b>External</b>	<p>The main question of the workers who have the motivation of this quadrant: "What is my benefit?"</p> <p><b>Advantages.</b> For such workers, it is necessary to organize an agreement that satisfies all parties – it will help everyone avoid stress and disputes that can have devastating effects on productivity.</p> <p><b>Disadvantages.</b> Personal awards are necessary, but insufficient to receive outstanding creative work. Therefore, if the managerial motivational strategy is only materially encouraging, it will be ineffective</p>	<p>In this sector, workers are concerned about their image.</p> <p><b>Advantages.</b> Creativity is much more motivated by public recognition than money. Thus, even if there is a tight budget, there are many ways to force employees to flare up, offering recognition for their achievements.</p> <p><b>Disadvantages.</b> If an employee is too long in pursuit of ratings, then he risks losing touch with his own creative passion (personal internal) and real pay (interpersonal internal) motivation</p>

- *interest.* Creative people have a very low level of boredom. One of the most common complaints among junior performers is the fact that senior men take away all the interesting work and leave them routine work. And basically they are right. In some companies, the ability to work on complex, interesting tasks is considered to be the right to be earned. Inevitably, a certain amount of routine work should be done in any company: a general way to persuade people to do this is to promise them something more interesting next time.

- *training.* Challenge and interest are the fuel of the learning process. Much of the pleasure of creativity comes from discovering something new and developing new skills in the process.

- *the goal.* Work becomes more attractive when employees feel that as a result you can achieve something important. It is not about the personal award that an employee will receive for doing the job, but about the effect that affects people or situations that are outside their normal sphere of influence.

Based on the main factors of internal motivation of employees, we can formulate the basic principles of management:

- provide a challenge;
- clearly formulate the purpose;
- eliminate distractions and breaks;

- give a corresponding activity to each employee;
- encourage behavior rather than results (if employees are rewarded only for successful projects, they will be much more cautious about suggestions and new ideas).

**External motivation** – no matter how much work people can love as art for the sake of art, there are very few who refuse offers such as money, fame, status and privileges. The types of external motivation are:

- *money*;
- *glory and recognition*;
- *awards* (creative people like a good reward ceremony. In some organizations, it's just a rumor that a project "may be nominated for a prize" that may prompt third parties to join the project and insiders double their efforts);
- *praise and gratitude*;
- *status and privileges* (at any enterprise or studio you can see signs of status and privileges, even in the behavior of people at meetings – the trainee is unlikely to sit at the head of the table);
- *opportunities*;
- *obligations and terms* (psychological peculiarities of people – as soon as an employee signs a contract or promises someone else, he is obliged to fulfil it: "If I have promised, then I will do it by a certain date").
- *threats*.

The features of management of external motivation:

- find the right balance (if someone feels that he is not well-appreciated and not encouraged, he will keep it in his head, which will affect his performance);
- checks;
- identification of those factors that have the greatest influence (the better the leader knows his team, the more obvious it will be for him, to what types of motivation they react positively, and to which ones – negatively).

**Interpersonal motivation** – getting pleasure from engaging with people. The types of interpersonal motivation are:

- *copying* (formation of the same pattern of behavior as the head, mentor, that is, the person who the employee is guided by in his activities);
- *disobedience*;
- *competitions* (currently the spirit of the creative competition is alive and healthy, it can be sustained with prizes, awards, ceremonies, for example,

creative people in the advertising sphere are more interested in conquering an award than in selling customer products);

- *cooperation* (most of the creative partnerships are based on mutual respect and friendship, and the awareness that people can usually create something better together. Talent attracts talent – we all want to work with the best in their business);

- *identification* (the tribe is a group of people connected with each other and united by a common idea. For millions of years, people have been part of one or another tribe. To form groups, only two things are required: the general interest and the way of communication);

- *obligations*;

- *encouragement*;

- *support* (for each person it is important that there should be someone who could say how important his work is);

- *the contribution* (part of the satisfaction of cooperation comes from the feeling that the employee has contributed to the work of the team, which will help to make the work more efficient. Of course, everyone would like to receive an individual reward, but deep satisfaction that comes from participation and unity with something bigger than a separate worker) is also important;

- *recognition*.

Facilitating interpersonal motivation:

- transform common interests into general goals (it is necessary to associate the interests and goals of the organization with the interests of the team members crystal clear. It is relatively easy to do in an organization that has a clear idea of the purpose other than earnings. On occasion it may be much more important to ask the employee about his interests and values, and indicate how they relate to the team's goals, than tell a fiery speech about the vision of the organization's goals by the company's leadership);

- *feedback* (some creative departments organize monthly feedback sessions, where everyone should submit their work to criticism from their colleagues).

Working with creative people requires from the heads knowledge of psychology. Negligent criticism, the slightest doubt about the employee's talent, can lead to a complete break of relations. Since the basic need of creative workers is the need for self-actualization, as its consequence,



recognition of their talent is very important for such people. In order to determine which type of motivation to choose for a particular employee, foreign psychologists and researchers challenged the motivation of creative activity and proposed a motivational anagram (Fig. 11.2).

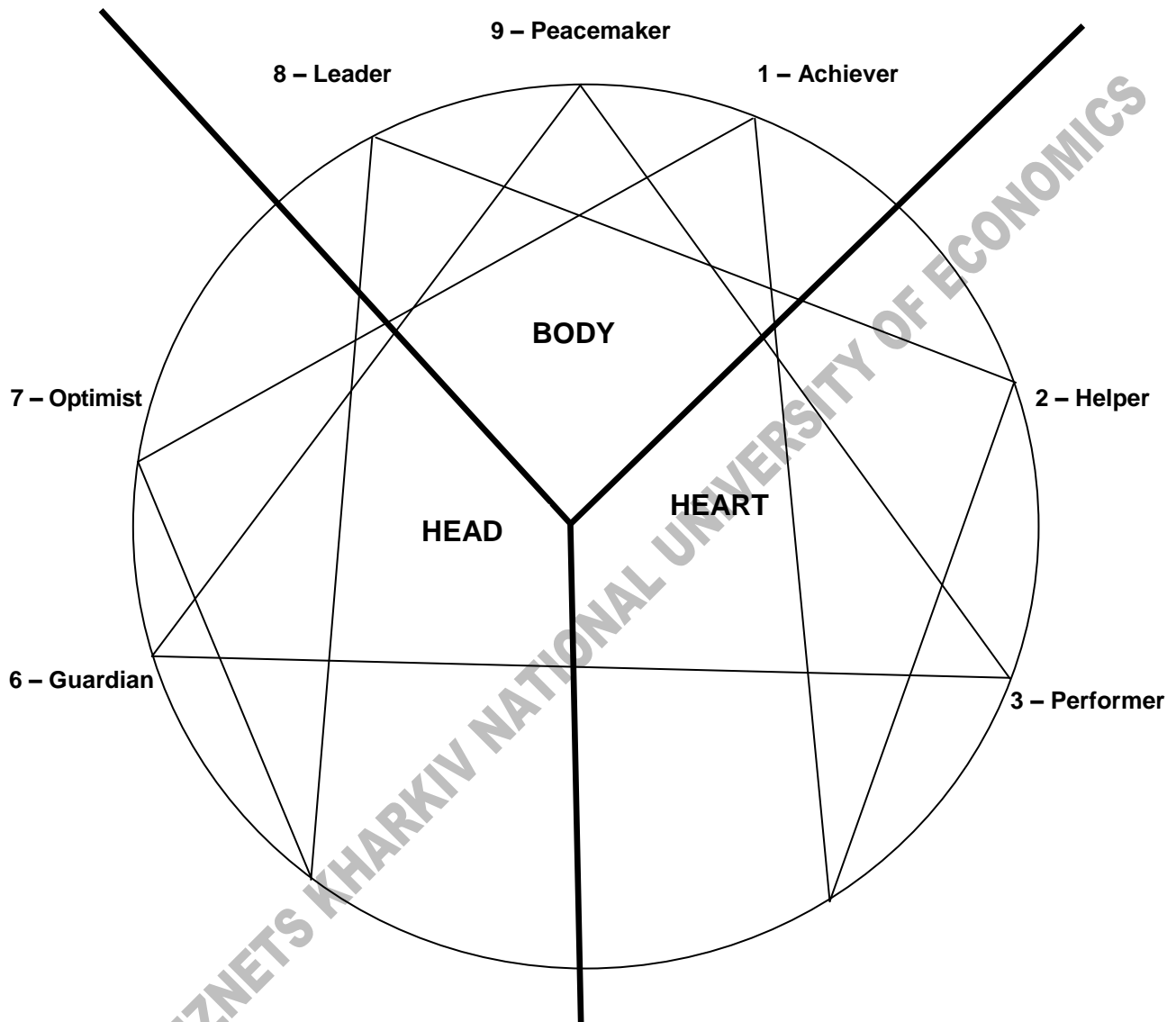


Fig. 11.2. **The motivational anagram of distribution of the creative types of individuality**

According to this anagram, all types of creative individualities can be conventionally divided into three groups, depending on their system of preferences: body, head and heart. Each of these groups includes certain types of creative personalities that have a certain specificity of working with them.

Table 11.3 presents the main features of motivation of each type of employee, described in the motivational anagram.

### The features of motivation of creative individualities

Type of creative individuality	Features of motivation
1	2
<b>The group "HEART"</b>	
2 – helper	For such workers, the most important value is generosity in themselves and in others. They believe that we all need to help each other as much as possible. They will be happy to provide help as support. An important component of the motivation of this type of personality is to express gratitude for the work done and show how much you value their kindness
3 – performer	Employees of this type like publicity. They believe that life is a race, with winners and losers. They are much focused on achieving their goals, and do not object to trimming some corners along the way – in their world, the image is a reality. A compulsory element of the motivation of such people is ensuring public recognition of their achievements
4 – romantic	For this type of staff, the most important thing in life is to be faithful to yourself. They have a rather original style and do not mind rating them as outsiders. In order to motivate this type of people, you need to give them the opportunity to show themselves in an individual way, to give them the opportunity to feel unique and special
<b>The group "HEAD"</b>	
5 – observer	Employees of this type value knowledge. They believe that knowledge is a force. They are readers and students throughout their lives. To motivate the fives, you need to be able to study and explore the subject from the inside. It is important for such people to feel their significance and to work under the leadership of an expert leader
6 – guardian	Security for employees of this type is very important. They believe that one in the field is not a warrior. They are excellent teammates and dedicated to the group. To motivate the six, you need to give them the opportunity to get close to the team and to reassure themselves that the danger has already passed

Table 11.3 (the end)

1	2
7 – optimist	Workers of this type appreciate the pleasures and possibilities. They believe that life is needed for life and enjoy every moment in full. They look only at the bright side, offer new options. To motivate the seven, you need to give them a lot of diversity and emphasize the pleasures that will be in the process of performing the task
<b>The group "BODY"</b>	
8 – leader	Workers of this type value stability. They believe that you have to fight for what you want in life. They are excellent leaders or terrible opponents, depending on how they perceive you. To motivate the eight, you need to give them the opportunity to take responsibility and demonstrate their effectiveness. You should also earn their respect by showing what you value in them
9 – peacemaker	Workers of this type value peace and harmony. They believe that life would be much easier if we could all learn how to interact. They are modest but skilful diplomats, interfering if necessary, can restore harmony in the group. To motivate the nine, you need to show them what course of action will help to achieve balance and mutual understanding
1 – achiever	Employees of this type value achievements that meet their own high standards. They find that hard work and discipline are necessary for success. They are perfectionists. To motivate the one, you need to show them that their diligence is appreciated

Thus, in order for any work to be carried out with maximum efficiency, it is necessary to take into account the individual characteristics of each person and to motivate them accordingly. So, for example, if you need to find a person for a hard and responsible job, you should say to the eight: "I need someone who could manage the process". For the two, you can emphasize "how useful it would be" if someone performed the work. For the three, you need to understand that if they do a good job "he will not remain unrecognized." For the one: "I ask you because I need someone I can rely on to do right".

**Recommended literature:** [23; 26; 33; 63; 79].

## Conclusions

In a postindustrial society, in the face of increasing competition in the world's markets, obtaining new sources of competitive advantage is based on the opportunities for the development of intellectual capital and intangible resources of the enterprise. Therefore, regardless of the sectoral affiliation of the company, the professional standard of personnel development is the formation of a special category of employees – creative workers. Under conditions of increasing automation of production and improvement of technologies, the formation of a qualitatively new category of workers creates the basis for the growth of labor productivity, and hence, the expansion of competitive advantages of the enterprise.

The concept of creative management can be considered based on different approaches, in particular: system, functional, situational, behavioral, administrative, etc. Most scholars, in particular A. S. Afonin, V. O. Vasilenko, V. K. Vilyunas and others point out that creative management acquires the most applied value provided it is disclosed from the point of view of systemic and functional approaches. The system approach is to consider the control system from two positions. The first represents a management system as an interacting set of control and control subsystems of management. The second – as a set of interconnected control subsystems, which are specific management functions.

Creative management is a special management activity designed to stimulate the creative activity of the employees in terms of generation, search, development, combination, evaluation and selection of creative ideas in order to realize the innovative development of the enterprise and obtain high economic, social and environmental results.

Some researchers distinguish three main groups of methods: heuristic, which requires the greatest realization of creative potential of employees, functional and structural research of objects, as well as combined algorithms. Also in the literature there is a grouping of all methods according to the criterion of stimulation of creative thinking: psychological, which involves motivating workers for creativity, as well as methods of systematized search for ideas.

A successful manager associates the development of the organization with the development of staff. The composition of the manager skills is to

a large extent interrelated with the set of factors of the so-called humanistic or leader approach to personnel management. The leader's approach is a modern style of personnel management, which is characterized as follows:

- the main factor for success and development of the organization is the development of people, their leadership qualities appropriate for a person and the desired level of organization: from leadership in the profession to the leader of the first level;
- one of the key goals of success is to create a highly productive team and maintain its productivity for the required time (for example, up to the completion of the project) or permanently;
- encouraging voluntary empowerment, initiative and accountability, reasonable risk;
- the method of decision-making: coaching, the methods of collective mental activity, involvement in decision-making (participation);
- recruitment: taking into account the individual labor potential and the potential necessary for working in a team (communicative, leadership, development);
- the way of bringing tasks to the performer: coaching, customer orientation, group orientation;
- the attitude to knowledge: a leader appreciates and manages knowledge;
- development of the leadership qualities of subordinates, expanding their outlook, providing widespread continuity;
- self-development for a leader – constant work;
- the attitude to subordinates: an interested, individual approach;
- the attitude to discipline: a possible individual regime in spite of the negative impact on the team;
- incentives taking into account the individual characteristics, needs, contribution and expectations of the employee (if possible);
- the content of work: mostly creative, productive, collective;
- possible deviations: group thinking, loss of high moral qualities, substitution of organization goals for group or leader goals, transformation of stay in a group into a rest home.

The highest degree of formation and functioning of the collective team is the integral intellect, which reflects the organic combination of abilities and intellectual potential of researchers, the synergetic effect of intellectual activity, the effect of complementarity and mutual consolidation. Modern

science has formed a significant tool for determining the degree of integrity of the group, called socio-psychological diagnostics.

Socio-psychological diagnostics allows you to evaluate:

- readiness to work together;
- group cohesiveness;
- the availability of groups and informal leaders;
- the causes of the origin and sources of socio-psychological tension;
- the schemes of interaction and information exchange between divisions;
- duplication of functions, functional intersections;
- the socio-psychological climate in the team;
- satisfaction with work and main motivators of activity;
- individual personality features of evaluated employees and a forecast of behavior in the future.

Management and business problems are so complex that solutions to them are not feasible for a single, even a talented leader, the goal is to create collective intelligence. The collective brain of the organization is a team that develops and implements the decision on how to get the organization out of a crisis situation and ensures its steady and competitive development. The manager who knows how to create a team and treats it as a collective brain will succeed.

Creativity of an enterprise is the sum of creativity of its employees. In this case, the global task of any company would be to search for the most gifted workers. However, creativity is at the core of all the components of the company. It is the true value for an organization when it is systematized and subject to management and control.

Effective management of the process of creativity development of the personnel of an enterprise involves taking into account each of the components of the creativity of an employee related to the conditions of the internal organizational environment based on cognitive, personal, and motivational peculiarities of a person.

People dealing with the development and implementation of new technology and products stand out among other categories of employees with a high level of education and intellectual development. They are characterized by analytical thinking, an increased sense of dignity, independence. Therefore, the stimulation of innovation work has its own specific features, namely: the use of a large number of tangible and intangible types of

remuneration, organization and psychological incentives aiming to meet the needs of a higher level; providing stimuli in the creative field on a regular, rather than one-time basis.

Thus, the tasks of managers using the modern approach to stimulating work in the creative sphere are as follows:

- to maximize the creative abilities of each individual;
- to direct this activity towards the achievement of specific innovative and economic results.

In doing so, we must be guided by the principle of internal motivation of creativity: people will be most creative when they feel motivated, above all, with their own interests, pleasure and the challenge of work itself – rather than under outside pressure.

The main types of motivation, which are distinguished in the domestic and foreign literature, are:

- internal – involvement in the work itself;
- external – remuneration for the performance of work;
- personal motivation – individual factors;
- interpersonal motivation – social factors.

Working with creative people requires managers' knowledge of psychology. Negligent criticism, the slightest doubt about the employee's talent, may lead to a complete breakdown of relations. Since the basic need of creative workers is the need for self-actualization, then, as a consequence, recognition of their talent is very important to such people.

## Key terms

**Charismatic leadership** – a leadership built on energy, charm, ability to inspire, lead.

**Coaching** – a method of mastering new knowledge, identifying and revealing the potential of an individual and a team, and a way of getting higher results in business using the same resources, primarily through intelligence and knowledge.

**Cohesiveness of the group** – the quality showing that the creation of the given group is not only possible but that it is integrated in the best way, that it achieved a special degree of development of relations, namely, the degree to which all members of the group to the greatest extent share the goals of group activities, the values associated with this activity.

**Creative intellect** – the ability to develop new ideas, to seek out unordinary solutions to various problems.

**Creative organization** – an organization that is constantly modernizing on the basis of continuous education of all its members and the development of their creative activity.

**Creative personnel** – the totality of labor resources of the enterprise that produce new solutions, are susceptible to new ideas, are patient to strangers, have the freedom to choose the problem and direction of research, have incentives for creativity and are necessary for the fulfilment of functions, achievement of goals of activity and perspective development of the enterprise.

**Creativity** – the creative abilities of the individual, characterized by the ability to produce fundamentally new ideas, and also belong to the structure of giftedness as an independent factor.

**Effective group emotional identification** – an interpersonal identification in which frustration, and, therefore, the experience of one of the members of the group is a tribute to others as the motives of behavior, organizing their own activities, aimed at both the implementation of the group goal and the blocking of the frustrator.

**Expert leadership** – leadership, based primarily on knowledge, when the leader becomes the best expert – an analyst, an expert, able to solve virtually any complex problem.

**Integration** – the most general characteristic of the unity of intragroup relationships and relationships in the process of joint activity.

**Motivation** – a combination of internal and external driving forces that motivate a person to work, set the boundaries of the form of activity and direct this activity to achieve certain goals.

**Motivation of creative activity** – a set of internal and external driving forces that encourage market actors to promote creative activity, set the boundaries and forms of its organization, and direct this activity to the achievement of development goals.

**Organizing** – the ability of a team to independently create an organization in a situation of uncertainty, combine the diversity of thoughts and forms of initiative behavior with a stable unity of actions of its participants.

**Personal creativity** – a process of thinking of a particular person, the result of which is the answer to the question, which at the time of putting the question was not known.



**Physical intelligence** – the work of the brain complex, which controls any physical activity – both external and internal.

**Sensory intelligence** – a person's ability to perceive his own feelings and respond to the feelings of other people.

**Social intelligence** – the ability of a person to understand and predict the behavior of other people in different life situations, as well as to recognize feelings, intentions and emotions in their verbal and nonverbal qualities.

**Thinking** – an active process of reflection of reality in the human mind, based on knowledge, intuition, habits and skills which defines human behavior in a particular situation.

**Workability** – the effect of the combination and interaction of individuals, characterized by the maximum possible productivity (in the joint work) with minimal emotional energy costs (for activity and interaction) against the background of sufficient subjective satisfaction (closer to the average).

## Tests

1. What types of thinking can be distinguished based on the criterion of dynamism?
  - A) dogmatic, stereotyped, flexible;
  - B) theoretical, technocratic, empirical;
  - C) critical, positive, scientific.
2. What theories of thinking do you know?
  - A) genetic;
  - B) introspective;
  - C) psychoanalysis;
  - D) Freudism;
  - E) neoclassicism;
  - F) NLP.
3. The method of cognition, based on the transfer of a series of properties from the known phenomenon to the unknown one:
  - A) comparison;
  - B) analogy;
  - C) hypothesis.
4. What psychological blocks and fixations can be categorized as creative barriers?
  - A) emotional;
  - B) perception;

- C) environment;
- D) cultural;
- E) physiological.

5. Indicate the correct sequence of stages of the creative process:

- A) incubation;
- B) insight;
- C) frustration;
- D) development;
- E) preparation.

6. What heuristic methods of stimulation of creativity do you know?

- A) brainstorming;
- B) expert assessment;
- C) collective notebook;
- D) NLP;
- E) the Delphi method;
- F) the trigger technology.

7. The method of mastering the new knowledge, revealing the potential of the individual and the team:

- A) coaching;
- B) training;
- C) consultation.

8. What models of leadership do you know?

- A) charismatic;
- B) democratic;
- C) authoritarian;
- D) expert.

9. What types of organizational culture do you know?

- A) competent;
- B) role-playing;
- C) functional;
- D) the culture of the task;
- E) network;
- F) the culture of personality.

10. What is the essence of the rule of a relativity question:

- A) the question should not have a static nature;
- B) the goal must be indicated as accurately as possible;
- C) the name of the problem should be short and symbolic?

## Questions for discussion

1. Consider a person as a subject and object of creative management.
2. What are the features and role of personnel in the system of creative management?
3. What is the value of creativity in business?
4. Give a description of competence and creative thinking in the context of the organization's development strategy.
5. Determine the role of the motivational process in creative management.
6. How are the results of creative activities of staff evaluated?
7. Provide the forms of detection, the ways of developing and using the creative potential of an individual.
8. Describe the methods of staging and system analysis of managerial problems.
9. Give an example of using the brainstorming method.
10. Give a description of the process of forming a creative environment at the enterprise.

## Questions for self-assessment

1. What is thinking? What approaches to the definition of thinking do you know?
2. What types of thinking do you know? What type of thinking, in your opinion, is necessary for a modern manager?
3. What theories of thinking do you know?
4. List the basic methods and techniques of cognition.
5. How can you support and develop mental processes?
6. What is creativity? Describe the main stages of the formation of creativity.
7. What is the difference between creativity and art?
8. What is creativity, how can it be developed?
9. Give examples of the most significant creative barriers that hinder your creativity.
10. List the main features of a creative personality.

11. What methods of stimulating the creative potential do you know? Which of them would you use in your work?
12. The place and role of a creative type of manager in a modern organization.
13. List the main characteristics of the manager of a creative type.
14. What is coaching? What types of coaching do you know?
15. Name the main features of the GROW-coaching model.
16. What models of leadership do you know? Give examples of using different models in different areas of activity.
17. List the main areas of stimulation of creativity at the enterprise.
18. What is social management? What is its role in the management of creativity?
19. Name the main features of the organization of the working environment to enhance the creativity of employees.
20. What is corporate culture? What is its role in creative organizations?
21. What possible situations arise in the process of getting knowledge?
22. List the main rules for building issues in the process of solving problem situations.
23. What is the Eisenhower basket?
24. Give an example of using the morphological matrix in practice. What are some of the advantages and disadvantages of this problem-solving method?
25. What is intelligence? What types of intelligence do you know?
26. What is integral intelligence?
27. What is the difference between teamwork and solidarity?
28. What methods of psychological diagnostics of a group do you know?
29. What are the methods of psychological diagnostics used to assess team integration?
30. What is a creative team?
31. In what form can creative teams be organized in the organizational structure?
32. What principles of organization of team interaction do you know?
33. Describe the place and role of the process of setting goals in team formation. What are the strategies for setting goals?

34. Which of the techniques of teamwork would you use at the stage of team formation? Why?

35. List the main ways to select professionals for a creative team. Which of them in your opinion, is the most optimal one?

36. What is the difference between the incentive and the motive?

37. What are the components of an employee's creative resources?

38. What is the rating of creative workers? Why is it formed?

39. List the main principles of motivating creative workers.

40. What types of motivation do you know?

41. Identify the main advantages and disadvantages of personal motivation.

42. Identify the main advantages and disadvantages of interpersonal motivation.

43. Identify the main advantages and disadvantages of internal motivation.

44. Identify the main advantages and disadvantages of external motivation.

45. Identify the peculiarities of constructing a motivational anagram. On which three groups is it based ?

### Answers to tests (section 1)

No.	The right answers	No.	The right answers
1	A	6	C
2	B	7	A, D
3	A	8	B, C, D
4	A, B	9	A
5	A, C	10	B, C

### Answers to tests (section 2)

No.	The right answers	No.	The right answers
1	A	6	A, C, F
2	A, B, D, F	7	A
3	B	8	A, D
4	A, B, D	9	A, B, D
5	E, C, A, B, D	10	A

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# **КРЕАТИВНА ЕКОНОМІКА ТА МЕНЕДЖМЕНТ**

**Навчальний посібник**  
**(англ. мовою)**

*Самостійне електронне текстове мережеве видання*

Відповідальний за видання *Г. В. Назарова*

Відповідальний редактор *М. М. Оленич*

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Розглянуто найважливіші проблеми формування творчої економіки в Україні. Проведено аналіз сучасного розвитку регіонів України за глобальним індексом креативності. Деталізовано особливості творчого підходу до управління працівниками та їх командами на вітчизняних підприємствах.

Рекомендовано для студентів другого (магістерського) рівня всіх спеціальностей денної форми навчання.

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