LIFELONG LEARNING: MODELS AND METHODS OF IMPLEMENTATION

Collective monograph

Technology Center

2023

UDC 004.056
L70

Published in 2023
by PC TECHNOLOGY CENTER
Shatylova dacha str., 4, Kharkiv, Ukraine, 61165

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Lifelong learning: models and methods of implementation: collective monograph. – Kharkiv: PC TECHNOLOGY CENTER, 2023. – 158 p.

Collective monograph is devoted to some problems of continuous education, in particular models and methods that allow to form new views and proposals for increasing the efficiency of the educational process. The results of a pedagogical experiment on the formation of organizational competence among future specialists in physical culture and sports of the Armed Forces of Ukraine are presented. Current problems of adult education using the Scandinavian model are highlighted, on the basis of which an original interactive intensive course was formed. The development of innovative models of effectiveness for communication in a foreign language with an emphasis on lifelong learning and multiculturalism is presented. The problems of management of professional development of professional staff in Ukrainian universities in the conditions of expansion of institutional autonomy are researched. The means of developing individual and group receptivity to the new are revealed.
The monograph is intended for educators, theoreticians and practitioners who study the problems of the continuous educational process in order to increase its effectiveness.
Figures 47, Tables 14, References 207 items.

DOI: 10.15587/978-617-7319-70-1
ISBN 978-617-7319-70-1 (on-line)

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ABSTRACT

Collective monograph contains the results of scientific research devoted to some problems of continuous education. The proposed models and methods make it possible to form new views and proposals that can contribute to increasing the efficiency of the educational process.

Chapter 1 highlights the results of a pedagogical experiment on the formation of organizational competence among future specialists in physical culture and sports of the Armed Forces of Ukraine. The dynamics of the formation of organizational competence is determined and it is shown that the application of the obtained results makes it possible to find out the formation of value-motivational, knowledge, managerial, control-corrective and reflective-evaluative components of organizational competence of cadets.

Chapter 2 focuses on the current problems of adult education in Ukraine and Sweden, which acquire special significance through the prism of the "value rearmament" of a person of the 21st century. The features of trends in adult education at the global and local levels are clarified, and the author's interactive intensive course is offered.

Chapter 3 presents the development of innovative models of effectiveness for communication in a foreign language with an emphasis on lifelong learning and multiculturalism. Integration of "inverted classroom" models, models based on tasks of immersion in the concept of technology application for improving language learning is proposed. It is shown that the introduction of technologies in language learning can improve access to resources and increase the effectiveness of education.

Chapter 4 is devoted to the management of professional development of staff of Ukrainian universities in the context of the expansion of institutional autonomy. The obtained results can be considered as part of the integration processes of higher education of Ukraine in the European educational space.

In Section 5, the means of developing individual and group receptivity to the new are disclosed. It is shown that corporate training through active methods, modern management models and technologies, coaching training technologies acquires special importance.

KEYWORDS

Organizational competence, adult education, the concept of continuous adult education, lifelong learning, Scandinavian model of education, multiculturalism, "inverted class" approach, intercultural competences, institutional autonomy, receptiveness to the new, cognitive-emotional processes.

CIRCLE OF READERS AND SCOPE OF APPLICATION

The monograph is intended for educators, theoreticians and practitioners who study the problems of the continuous educational process in order to increase its effectiveness.

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INTRODUCTION

Continuous education in the modern world occupies one of the key places in the development of society and any national economy. The rapid growth of technologies penetrating all spheres of human activity also requires modern educational technologies based on innovative models and methods of learning. Their goal is to provide opportunities for any person, regardless of age, to acquire new knowledge and competences in the minimum time with maximum efficiency. This is motivated by the need for retraining, employment, professional development at workplaces to meet the needs of employers, etc. This collective monograph is devoted to some aspects of the development of such innovative educational technologies.

Current issues regarding the formation of organizational competence among future specialists in physical culture and sports of the Armed Forces of Ukraine are considered. The aim is to determine the dynamics of the formation of organizational competence after the formative stage of the pedagogical experiment. An algorithm for determining the levels of organizational competence is presented according to a number of criteria: value-motivational, cognitive, organizational-activity, managerial, individual-psychological and subject. Their application makes it possible to find out the formation of the corresponding components of the studied phenomenon: value-motivational, knowledge, managerial, control-corrective and reflective-evaluative components of the organizational competence of the respondents.

In the context of continuing education management, foreign experience based on progressive models is important, including the "Swedish model" as a reflection of the Scandinavian experience of adult education. Such experience and its application acquire special significance through the prism of the "value rearmament" of a person of the 21st century, the formation of a new value consciousness of a specialist with a higher education as a global ethic of a new historical era. Its main components are: striving to preserve the spiritual essence of education in the conditions of its mass; formation, strengthening and multiplication of authentic personal values; upholding the idea of the priority of the development of "human in man"; multiculturalism; rehabilitation within the market of educational services of the idea of a standard. The relevant research makes it possible to determine the most effective forms of organization of the adult education system and to identify pedagogical conditions for the successful use of foreign progressive experience.

It is also relevant a study on the development of innovative models of effectiveness for communication in a foreign language with a focus on lifelong learning and multiculturalism. The ideas proposed in the context of this study to integrate innverted classroom models, task-based models, and immersion models into the concept of technology application allow for an innovative design of efficiency models that promote lifelong learning and multiculturalism in communication in a foreign language. The introduction of the proposed models and technologies in language learning can improve access to resources and increase efficiency, which ultimately is a factor in improving the quality of education.

In the modern global world, the integration of higher education systems of states into other educational spaces is of considerable interest. In particular, it is important to solve the problems associated with the expansion of the institutional autonomy of universities, in which one of the key roles is played by the issues of professional development of the teaching staff.

It should also be noted that definitions, classification, characteristics and opportunities for the development of receptivity to the new play an important role in the issues of the continuous educational process. It is the perfection and development of the means of development of individual and group receptivity to the new that can be considered as a key to the formation of team and organizational values, the development of collective search and decision-making skills. In this vein, corporate training in such modified forms as active training methods acquires importance; modern management models and technologies; coaching training technologies.

All these problems, which are reflected in this monograph, may be of interest in terms of the formation of models and methods for the development and implementation of innovative educational technologies aimed at the implementation of a continuous educational process.

DOI: 10.15587/978-617-7319-70-1.CH1

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CHAPTER 1

RESULTS OF THE FORMATIVE STAGE OF THE PEDAGOGICAL EXPERIMENT WITH CADETS - FUTURE SPECIALISTS IN PHYSICAL CULTURE AND SPORT

ABSTRACT

The study is devoted to highlighting the statistically elaborated results of the formative stage of the pedagogical experiment on the formation of organizational competence among future specialists in physical culture and sports of the Armed Forces of Ukraine (hereinafter referred to as the respondents). The aim of the study is the dynamics of the formation of organizational competence after the formative stage of the pedagogical experiment, testing the significance of the results obtained and the reliability of the hypothesis put forward. An algorithm for determining the levels of formation of their organizational competence (low, medium, high) is presented according to a number of criteria – value-motivational, cognitive, organizational-active, managerial, individual-psychic and subjective. Their application makes it possible to find out the formation of the relevant components of the phenomenon under study – value-motivational, knowledge, managerial, managerial, control-corrective and reflective-evaluative components of the respondents' organizational competence. Their application made it possible to obtain such experimental results that made it possible to compare the levels of formation of the organizational competence of the respondents at the summative and formative stages of the pedagogical experimental study.

The experiment covered cadets of the Educational and Scientific Institute of Physical Culture and Sports and Recreation Technologies of the National Defense University of Ukraine named after Ivan Chernyakhovsky. The results of the formation experiment made it possible, on the one hand, to establish the statistical significance of the experimental results obtained, which are the result of the introduction of the pedagogical conditions for the formation of the organizational competence of the respondents, justified by us (maintaining and developing the motivation for its formation in them; pedagogical modeling of its formation in the future specialists of physical culture and sports of the Armed Forces (hereinafter referred to as the Armed Forces) of Ukraine in higher military educational institutions (hereinafter referred to as universities) as its organizers, ensuring interdisciplinary connections in the process of formation their organizational competence, purposeful formation of a system of organizational knowledge, skills and abilities as future organizers of physical training and sports using contextual teaching methods (special course "Organizational competence of future specialists in physical culture and sports of the Armed Forces of Ukraine"),

which positively influenced its formation, and on the other hand, to focus on based on the need to introduce additional pedagogical conditions for its formation in the course of their professional training in universities as future organizers of physical culture and sports in military units.

Diagnosis was made using the diagnostic tools developed by us. These are testing, questioning, quasi-management theoretical and practical tasks (situations). An analysis of the experimental results of its formation shows a positive trend, namely: the number of respondents with an average level of formation increased from 23.06 % (6 respondents) to 30.76 % (8 respondents), high – from 15.37 % (4 respondents) to 46.15 % (12 respondents), and at the same time, the number with a low level decreased significantly – from 61.54 % (16 respondents) to 23.09 % (6 respondents). The corresponding correlation coefficients between all components were established, which in the most general form made it possible to understand the direct relationship between them and to find out the correlations between the main components of the respondents' organizational competence.

KEYWORDS

Maturity, organizational competence, pedagogical experiment, methods, criterion, indicator, levels, correlation, statistics, specialists in physical culture and sports.

In recent years, there has been a growing interest in competencies in psychological and pedagogical research. One of the reasons for the popularity of its research is the functional perspective of competence and the desire for its further development [1], in our case, the formation of it in future officers – specialists in physical culture and sports of the Armed Forces of Ukraine, and competence in physical education, according to scientists, a person's ability to lead a physically active lifestyle [2]. As part of our study of the problem of formation the organizational competence of respondents, it is advisable to consider the methodology for conducting and evaluating the effectiveness of our proposed pedagogical activities to achieve the research goal. The research goal of the formative stage of the pedagogical experiment is a significant increase in the levels of formation of organizational competence among the respondents. Thus, an interesting opinion of scientists (Yahupov, V., Zastelo, O., Svystun, V., Korchynska, N., Chorna, O., Krykun, V.) makes it possible to understand that achieving a high level of students' competence significantly depends on how academic disciplines are taught in the course of their professional studies [3]. Accordingly, after the summative stage of the pedagogical experiment, the next stage is the formation one, at which the pedagogical conditions justified by us for the formation of the organizational competence of respondents in the process of acquiring professional education were introduced into the pedagogical process of universities. After that, there is a need for objective experimental confirmation or refutation of their effectiveness, in particular, the determination of the levels of formation of

the organizational competence of the respondents, namely, the clarification of the qualitative and quantitative characteristics of the state of its formation after the formative stage of the pedagogical experiment in comparison with the results of the summative experiment.

1.1 CONCEPTUAL APPROACHES TO THE DEVELOPMENT AND FORMATION OF ORGANIZATIONAL COMPETENCE OF FUTURE SPECIALISTS IN PHYSICAL CULTURE AND SPORTS OF THE ARMED FORCES OF UKRAINE: THEORETICAL FOUNDATIONS, MODERN TRENDS, REGULARITIES, PRINCIPLES

Analysis and synthesis of various scientific sources, developments, research papers and the results of dissertation research on the formation and development of organizational competence of different specialists made it possible to realize that scientific research is carried out in the following areas: organizational competence of managers of enterprises and organizations in the field of healthcare [4], pharmacists [5], local government [6], service sector [7], social sphere [8], technology teachers [9], etc. The main conclusion based on the results of their generalization is that there are no practical scientific developments on the organizational activities of managers and the formation of their organizational competence in general and the category of respondents we are studying – future officers as specialists in physical culture and sports in the Armed Forces of Ukraine, in particular.

On the subject of our study, the following scientific developments are important: the formation of organizational competence of future physical education teachers in the process of professional training (Pilova, S.) [10]; formation of students' readiness for organizational activities (Savchenko, L.) [11]; components of organizational competence of specialists in project management and support (Stevenson, K.) [12]. So, Stevenson, K. points out that "Also central to this development of competence is the organization's ability to assess its performance both internally and in relation to its competitors. As with individuals, endorsed organizational competency standards would provide a foundation for the development of an organization's project strategy aligned to corporate strategic goals, objectives and plans; the professional development, selection and employment of project staff; and the design, development and implementation of project management-related methods, standards and systems – all of which, in turn, would influence the evolving and maturing process, or the attainment of competence, for the organization" [12].

As for military personnel, there are only separate scientific developments regarding the formation and development of certain of their physical qualities. They reveal certain aspects of their physical education. For example, military scientists in their article The efficiency of the experimental academic program of the discipline of Physical Education, Special Physical Training, aimed at the formation of psychophysical readiness of cadets of technical higher military educational institutions for future professional activity was examined. The criteria of the efficiency of the experimental program are determined to be the indicators of general and special physical fitness of cadets and the

level of professionally important psychological qualities. It was discovered that conducting classes according to experimental program contributed to the improvement of the level of development of the cadets' special physical qualities, mastering military-applied skills, the formation of professionally important psychological qualities that generally ensured the formation of psychophysical readiness of future specialists for professional activity [13].

This article [14] investigated the influence of kettlebell lifting exercises on indicators of physical development of cadets in higher military educational institution during the study period. Physical development was investigated on the basis of height, body weight, body mass index and the ratio of the number of cadets in each group that were overweight. The body weights of cadets in their senior academic years who trained via kettlebell lifting were significantly lower than those of cadets who were engaged in the current system of physical education by 4.2–6.7 %. The influence of the kettlebell lifting training on the level of endurance development and functional abilities of the cadets' cardiovascular system in the course of study is examined in the article. The study of the level of endurance development was conducted during the following tests: 3 km race, 5 km accelerated march, and the obstacle course (400 m). The cardiovascular system functioning was examined concerning these indicators: heart rate, arterial blood pressure, Robinson's index, and heart rate recovery from a standard load. The improved indicators of the endurance and cardiovascular system of cadets have been reliably determined ($p < 0.05$–0.001) which proves the efficiency of the kettlebell lifting training concerning the future officers' formation of physical readiness for professional activity [15].

The article deals with the results of experimental study of the development of psychophysical endurance in future professionals of military administration (PMA) at the stage of operational-tactical training. Let's present the statistical results of the statement and formative experiments for each component – value and motivation, cognitive, emotion-and-will, profession-and-activity and subjective components, received in the result of diagnosing their psychophysical endurance development. There is given the hypothesis of the research, aimed to revealing the statistically important differences in the results of experimental research. It is shown the experimental data concerning the levels (low, average, sufficient, high) of their psychophysical endurance development. There are characterized assessment criteria and factors of psychophysical endurance development in future PMA and the block of methods for incoming and outgoing diagnosing of its development. IBM SPSS Statistics 22 software was used for statistical processing of data. The experimental study covered 38 students of operational and tactical level of training, which were divided into experimental ($n1 = 19$) and control ($n2 = 19$) groups. Arithmetic mean value of all scales was calculated for each component of psychophysical endurance, and their generalization confirms the positive tendency towards psychophysical endurance development in EG: the high level had increased from 5.26 % to 26.32 %, the sufficient – from 21.05 % to 47.37 %, the average – decreased from 47.37 % to 15.78 % and the low – from 6.32 % to 10.53 %, respectively. In the result of statistical processing of the received experimental data, the statistical hypothesis of the research (H1) was confirmed. Thus, the proposed model and methodology for

the development of psychophysical endurance of future PVU led to statistically significant changes in the development of psychophysical endurance of future PVU, which, first, can be extended to the whole population; secondly, they depend on the effectiveness of experimental pedagogical measures. The conducted statistical analysis of the results of summative and shaping experiments and their comparison shows the positive dynamics of the development of psychophysical endurance of future military management professionals in EG and confirms the statistical hypothesis of the study (H1). Thus, our proposed pedagogical conditions – the model and method of developing their psychophysical endurance – have led to statistically significant results that can be extended to the whole population [16].

According to (Kryshtanovych, S., Bilostotska, O., Ulianova, V., Tkachova, N., Tkachov, A.), the competence of managers in physical education and sports is determined by professional knowledge, the level of success in using cognitive psychology methods, readiness to fulfill the future works [17].

At the same time, according to the results of our generalization of scientific sources, the problem of the formation of organizational competence of future officers – specialists in physical culture and sports in the Armed Forces of Ukraine, remained without attention of scientists, in particular, the clarification of the current state of its formation and development, as well as experimental substantiation of the necessity and expediency of its purposeful formation in the process of obtaining military-professional education in military universities.

1.2 ORGANIZATION OF SCIENTIFIC RESEARCH AND RESULTS OF EXPERIMENTAL WORK

The pedagogical experiment involved 26 cadets of the Educational and Scientific Institute of Physical Culture and Sports and Recreation Technologies of the National Defense University of Ukraine named after Ivan Chernyakhovsky (hereinafter referred to as cadets, respondents), who at the same time make up the general population in Ukraine. To obtain more reliable experimental results, the experiment covered two senior courses – 3 and 4. And if the sample is relatively small – at least 5 people and not more than 50, then it is subject to full coverage and continuous diagnosis. "A sample is a set of subjects selected at random from the general population, that is, it corresponds to the general population in all characteristics. The theoretical basis of the sampling method is the theory of probability and the law of large numbers" [18]. Taking into account this feature of our sample, a consistent pedagogical experiment was conducted, which "... is characterized by the fact that the same group of subjects is analyzed, which is both a control group (its primary state at the summative stage) and an experimental one: its state after the formation experiment. Let's agree with the opinion of scientists that a sequential experiment is organized in one study group, in which the state of formation / development of the studied pedagogical phenomenon is recorded according to the traditional system and the effectiveness of new pedagogical innovations is compared after their introduction as an experimental factor in the same group [19]. Consequently, even before the start of the experiment, all the control, factorial and neutral properties of the

subject of study and its main properties are correctly recorded, which will then be diagnosed. After that, the factorial (experimental) characteristics of the group and the conditions for its functioning are changed, and after the formation experiment, the state of the subject of research is measured again according to its control characteristics – components and their content.

Thus, there is no control group in the serial experiment. The same group acts in it as a control for the introduction of experimental conditions and as an experimental group after these conditions are experimentally implemented. The proof of the hypothesis in this case is based on a comparison of two states of the subject of research – at different times: at the summative and formative stages. It is characterized by the fact that the same group is subject to analysis, which is the control (its initial state) and experimental (its state after the formation experiment), that is, before the start of the experiment, the control, factorial and neutral characteristics of the subject of study are clearly fixed – components and their content, for example, managerial thinking of different categories of officers" [18].

After the implementation of the pedagogical conditions that we justified for the formation of the organizational competence of the respondents (maintaining and developing the motivation for its formation in them; pedagogical modeling of its formation among future specialists of physical culture and sports of the Armed Forces of Ukraine in universities as its organizers; ensuring interdisciplinary connections in the process of formation their organizational competence; purposeful formation systems of organizational knowledge, skills and abilities as future organizers of physical training and sports using contextual teaching methods (special course "Organizational competence of future specialists in physical culture and sports of the Armed Forces of Ukraine"), the dynamics of the formation of each of its components was established, and the corresponding correlations between them were established , that is, we carried out the formative stage of the pedagogical experiment, diagnosing its results was carried out using the diagnostic tools developed by us (**Table 1.1**) [20].

Table 1.1 reflects the methods of diagnosing each component of organizational competence of future specialists in physical culture and sports of the Armed Forces of Ukraine. We have chosen and substantiated each method of diagnosing, carried out expert evaluation activities on the author's methods of diagnosing them with fundamental experts in this field of knowledge.

After the formative stage of the experiment, the respondents were asked to perform research procedures that were at the summative stage. In particular, these are:

– pass a questionnaire and test to identify their professional motives and values, to find out the levels of formation of their general knowledge of the future military specialty, organizational knowledge as managers in the field of physical training and sports, pedagogical knowledge – teachers-organizers of physical training and sports in a military unit, knowledge of the basic principles of managing the process of physical education of military personnel in the Armed Forces of Ukraine;

– pass a test to identify future officers as organizers of physical training and sports in military units;

– fill in and answer the questions of a number of questionnaires aimed at identifying professionally important organizational qualities of respondents as future organizers of physical training and sports in a military unit.

● **Table 1.1** Methods of assessment of training the organizational competence components during the summative and formative stages of the experiment

No.	Test	Methods of assessment of training the nature of organizational competence components
1	Value and motivation	"Diagnostics of the Real Structure of Value Orientations of a Personality" by Bubnov, S.; "Motivation of Professional Activity" by Zamfir, K. (methodology modified by Rean, A.)
2	Cognitive	proprietary questionnaire tests/inventories
3	Organizational and operational	solving quasi-administration practical organizational tasks (situations) that are proprietary
4	Management	proprietary methodology of assessing future military officers as managers of physical training and sports activities at military units
5	Individual and mental	"Method of Diagnosing Communicative and Organizational Abilities" (according to Synyavskyi, V. and Fedoryshyn, B.); "Aptitude for leadership" test; proprietary test to determine the levels of physical fitness of respondents according to the requirements and standards as provided for by Order of the Minister of Defense of Ukraine No. 225 dd. 05 August 2021
6	Subject	"Evaluation of Reflexivity" method by Karpov, A.; "Evaluation of Development Levels of Personality Subjectivity" method by Shchukina, M.

Let's move on to the analysis and generalization of the dynamics of the formation of organizational competence among the respondents in all its components before and after the formative stage of the pedagogical experiment. First, we clarified the dynamics of the formation of its value-motivational component at the main stages of the pedagogical experiment – summative and formation (**Table 1.2**, **Fig. 1.1**). The importance of this component is related to the meaning of values in education, which "... consists primarily in the fact that they form a system of values, principles, norms, canons and ideals that determine the value of education in society, regulate the interaction of subjects in the educational sphere and form a value component in the structure of the educational activities of those who acquire a certain education, the pedagogical activities of teachers. This is due to the fact that values, firstly, form the most important thing for each person and specialist – their attitude towards the world, things, activities, other people and oneself; secondly, they determine the behavior and meaning of the activities of its subjects in education, the attitude, on the one hand, of teachers to pedagogical activity, to its meaning and results, on the other hand, of students (students, listeners) to the acquisition of education, educational activities and its meaning, and the main result In this regard, in pedagogical research, one of their main goals should be to clarify the value sphere of the subjects of education – teachers and those receiving a certain education – pupils (students, listeners)" [21].

Analysis of the content of **Table 1.2** shows that after the formative experiment, compared with the summative experiment, there was a significant increase in the number of respondents with a high (from 7.69 to 42.31 %) level of formation of their value-motivational component of organizational

competence. In addition, we observe a positive trend in a significant decrease in the low level of its formation (from 61.54 % to 23.08 %). This fact is essential in our study, since the value-motivational aspect has a direct positive impact on the formation of all other components of the respondents' organizational competence. The results of our correlation analysis, contained in **Table 1.1**, confirm this thesis and demonstrate such a stable pattern between almost all components.

Table 1.2 Dynamics of training the value and motivation component of organizational competence in students during the experiment

Component nature	Levels	Experiment stages				Difference
		Before		After		
		Quantity	%	Quantity	%	
Professional values	Low	17	65.42	7	26.92	–10 (–38.46 %)
	Medium	6	23.07	11	42.31	+5 (+19.23 %)
	High	3	11.51	8	30.78	+5 (+19.23 %)
Professional motives	Low	14	53.84	5	19.23	–9 (–34.61 %)
	Medium	11	42.30	7	26.92	–4 (–15.38 %)
	High	1	3.84	14	53.85	+13 (+50 %)
Total	Low	16	61.54	6	23.08	–10 (–38.46 %)
	Medium	8	30.77	9	34.61	+1 (+3.84 %)
	High	2	7.69	11	42.31	+9 (+34.61 %)
N = 26						

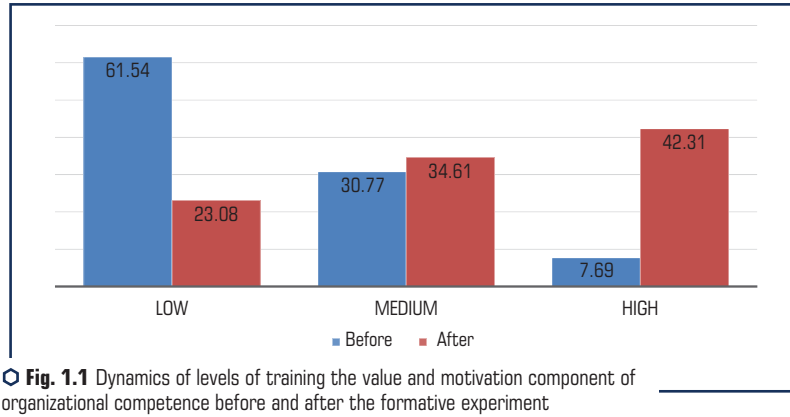


Fig. 1.1 Dynamics of levels of training the value and motivation component of organizational competence before and after the formative experiment

The dynamics of the formation of knowledge of the organizational competence component of the respondents is highlighted in **Table 1.3** and **Fig. 1.2**.

Table 1.3 Dynamics of training the knowledge component of organizational competence in students during the experiment

Component nature	Levels	Experiment stages				Difference
		Before		After		
		Quantity	%	Quantity	%	
Operational knowledge in the capacity of a military officer	Low	19	73.08	6	23.08	–13 (–50 %)
	Medium	6	23.07	9	34.61	+3 (+11.54 %)
	High	1	3.85	11	42.31	+10 (+38.46 %)
Management knowledge in the capacity of an organizer of physical training and sports activities	Low	20	76.92	8	30.78	–12 (–46.15 %)
	Medium	4	15.38	8	30.78	+4 (+15.38 %)
	High	2	7.69	10	38.44	+8 (+30.77 %)
Pedagogical knowledge in the capacity of a teacher-organizer at a military unit	Low	18	69.23	9	34.61	–9 (–34.61 %)
	Medium	8	30.77	2	7.69	–6 (–23.07 %)
	High	0	0	15	57.70	+15 (+57.69 %)
Total	Low	19	73.08	8	30.78	–11 (–42.30 %)
	Medium	6	23.07	6	23.07	0
	High	1	3.85	12	46.15	+11 (+42.30 %)
N = 26						

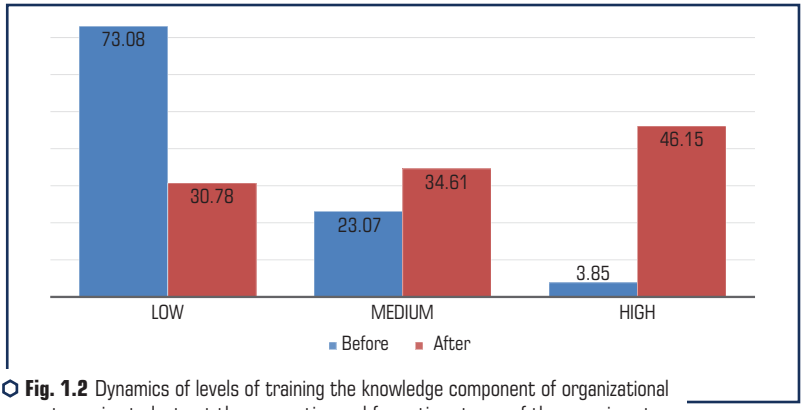


Fig. 1.2 Dynamics of levels of training the knowledge component of organizational competence in students at the summative and formative stages of the experiment

The formation of the managerial component of the organizational competence of the respondents is presented in **Table 1.4** and **Fig. 1.3**. A significant increase in the average (from 15.38 % to 26.92 %) and especially high (from 3.85 % to 50 %) levels of its formation. In addition, we have a significant positive trend in reducing its low level (80.75 % to 23.08 %). We consider this result

to be a natural result of the presence of a strong or significant correlation with the value-motivational, cognitive and reflexive-evaluative components of their organizational competence (**Table 1.1**).

In our opinion, based on the definition "physical training of military personnel is a purposeful controlled process of their physical improvement". It is the management component that is one of the fundamental components of the content and structure of organizational competence of future specialists in physical culture and sports of the Armed Forces of Ukraine. Management and organization of the physical training process, for example, in a military unit, is an extremely important task for a future specialist.

Table 1.4 Dynamics of training the administration component of organizational competence in students during the experiment

Component nature	Levels	Experiment stages				Difference
		Before		After		
		Quantity	%	Quantity	%	
Quasi-administration situations	Low	21	80.76	6	23.08	–15 (–57.69 %)
	Medium	4	15.38	7	26.92	+3 (+11.54 %)
	High	1	3.85	13	50	+12 (+46.15 %)
Total	Low	21	80.75	6	23.08	–15 (–57.69 %)
	Medium	4	15.38	7	26.92	+3 (+11.54 %)
	High	1	3.85	13	50	+12 (+46.15 %)
N = 26						

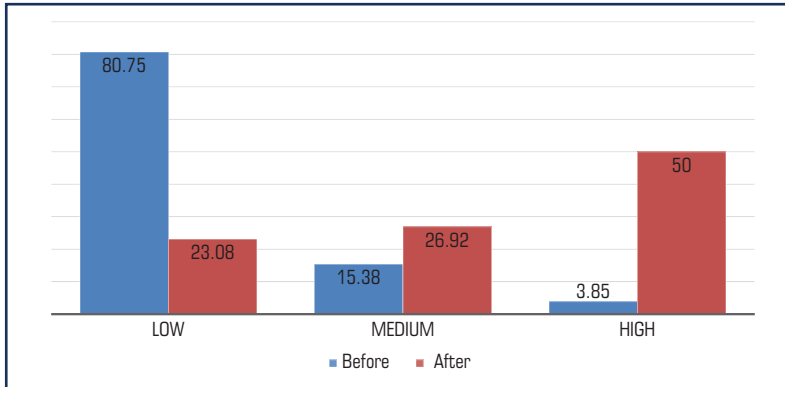


Fig. 1.3 Dynamics of levels of training the administration component of organizational competence in students at the summative and formative stages of the experiment

Based on their analysis, it can be found that there has been a significant increase in respondents with an average (from 3.85 % to 30.77 %) and especially high (from 0 % to 50 %) levels of

its formation. There is also a positive trend in the reduction of its low level (96.15 % to 42.31 %). Such results (**Table 1.5** and **Fig. 1.4**.) indicate the need for targeted managerial training of respondents, since there remains a significant reserve – 42.31 % (low level of maturity) – to improve this component.

Table 1.5 Dynamics of training the management component of organizational competence in students during the experiment

Component nature	Levels	Experiment stages				Difference
		Before		After		
		Quantity	%	Quantity	%	
Proprietary test of assessing physical training managers	Low	25	96.15	11	42.31	–14 (–53.84 %)
	Medium	1	3.85	8	30.77	+7 (+26.92 %)
	High	0	0	7	26.92	+7 (+26.92 %)
Total	Low	25	96.15	11	42.31	–14 (–53.84 %)
	Medium	1	3.85	8	30.77	+7 (+26.92 %)
	High	0	0	7	26.92	+7 (+26.92 %)
N = 26						

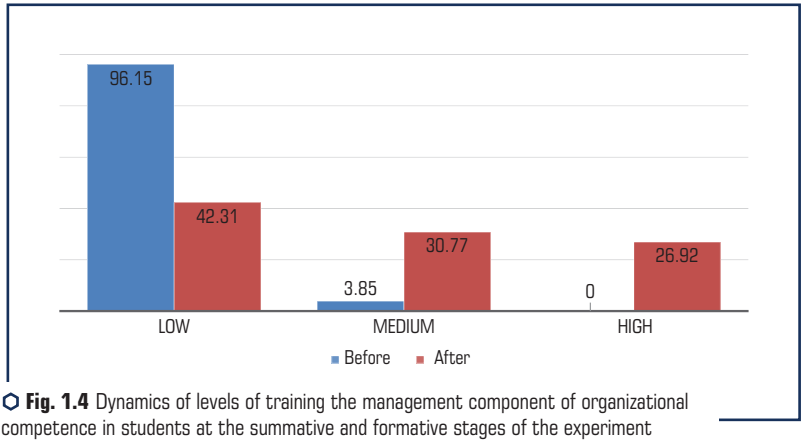


Fig. 1.4 Dynamics of levels of training the management component of organizational competence in students at the summative and formative stages of the experiment

Therefore, the formation of these components and the positive dynamics of the results of the formative stage in comparison with the summative stage of the experiment convincingly indicate that there are reserves for improving the practical organizational preparedness of the respondents in the process of their military professional training, and especially organizational readiness at the university, since they are direct organizers of training and sports of military personnel in military units.

The formation of the control and corrective component of the organizational competence of the respondents is reflected in **Table 1.6** and **Fig. 1.5**.

Table 1.6 Dynamics of training the control and correction component of organizational competence in students during the experiment

Component nature	Levels	Experiment stages				Difference
		Before		After		
		Quantity	%	Quantity	%	
Dominance (leadership)	Low	13	50	7	26.92	–6 (–23.09 %)
	Medium	8	30.77	11	42.31	+3 (+11.53 %)
	High	5	19.23	8	30.77	+3 (+11.53 %)
Aptitude for communication and organization	Low	11	42.30	9	34.61	–2 (–7.69 %)
	Medium	9	34.61	9	34.61	0
	High	6	23.09	8	30.77	+2 (+7.69 %)
Professional endurance	Low	2	7.69	2	7.69	0
	Medium	7	26.92	6	23.09	–1 (–3.85 %)
	High	17	65.38	18	69.23	+1 (+3.85 %)
Total	Low	9	34.62	6	23.09	–3 (–11.53 %)
	Medium	8	30.76	9	34.61	+1 (+3.85 %)
	High	9	34.62	11	42.30	+2 (+7.69 %)
N = 26						

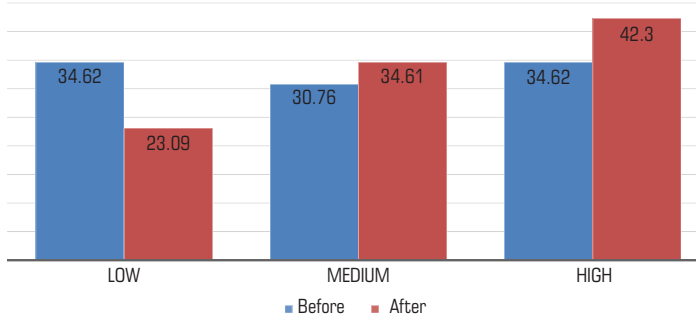


Fig. 1.5 Dynamics of levels of training the control and correction component of organizational competence in students at the summative and formative stages of the experiment

Summarizing their content makes it possible to emphasize that the positive dynamics here are not as significant as in the previous components. In particular, there was a certain increase in the average (from 30.76 % to 34.61 %) and high (34.62 % to 42.30 %) levels of its formation. In addition, there is a positive trend in the decrease in the low level of its formation – 34.62 % to 23.09 %.

The conclusions on this component are as follows: firstly, the formation of this component is important, since it ensures that the respondents correct their organizational activities in a timely manner based on the results of control measures for the physical fitness and readiness of military personnel and military units (units); secondly, the obtained experimental results indicate the need for additional psychological and pedagogical research for the formation of the individual mental component of organizational competence; thirdly, in order to obtain a significant dynamics of the formation of this component, additional purposeful educational education with respondents is needed; fourthly, the content of this component contains communication links that are important in any organization, whether it be internal communication between various organizational structures of the institution or communication with other institutions or with the media in general [22]; fifthly, it is possible to significantly improve the formation of this component due to the reflective-evaluative component, which has a direct impact, as the experience of pedagogical activity shows, on all other components.

The formation of the reflective-evaluative component among the respondents is shown in **Table 1.7** and **Fig. 1.6**. Their analysis and generalization of the content show that there has been a significant increase in the number with a high (from 38.46 % to 57.69 %) level of its formation. In addition, there is a noticeable positive trend in reducing the low level of its formation (from 23.08 % to 3.85 %). Such dynamics is evidence that the introduced organizational and pedagogical conditions generally have a positive effect on the formation of future officers as subjects of the organization of physical culture and sports in military units [16]. The presence of positive subjective shifts gives us the opportunity to emphasize the possibility of achieving significant results in the training of future officers as subjects of physical training and sports. This is probably the most difficult task compared to other tasks in the formation of the main components of their organizational competence.

Table 1.7 Dynamics of training the reflection and evaluation component of organizational competence in students during the experiment

Component nature	Levels	Experiment stages				Difference
		Before		After		
		Quantity	%	Quantity	%	
1	2	3	4	5	6	7
Professional subjectivity	Low	9	34.62	0	0	–9 (–34.61 %)
	Medium	4	15.38	11	42.30	+7 (+26.92 %)
	High	13	50	15	57.69	+2 (+7.69 %)

Continuation of Table 1.7

1	2	3	4	5	6	7
Reflexivity	Low	3	11.53	1	3.85	–2 (–7.69 %)
	Medium	16	61.53	8	30.77	–8 (–30.77 %)
	High	7	26.92	17	65.38	+10 (+38.46 %)
Total	Low	6	23.08	1	3.85	–5 (–19.23 %)
	Medium	10	38.46	10	38.46	0
	High	10	38.46	15	57.69	+5 (+19.23 %)
N = 26						

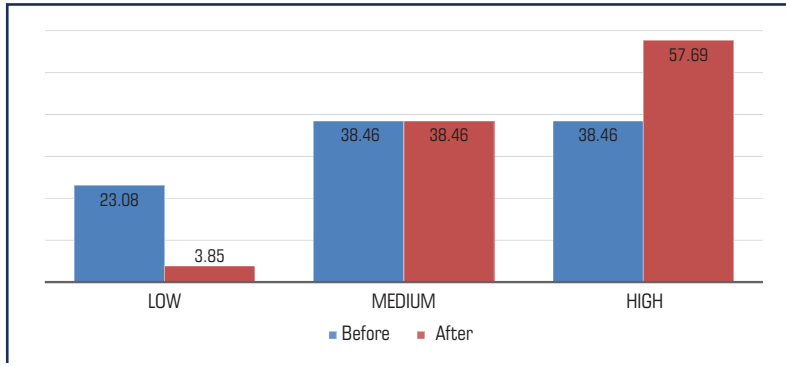


Fig. 1.6 Dynamics of levels of training the reflection and evaluation component of organizational competence in students at the summative and formative stages of the experiment

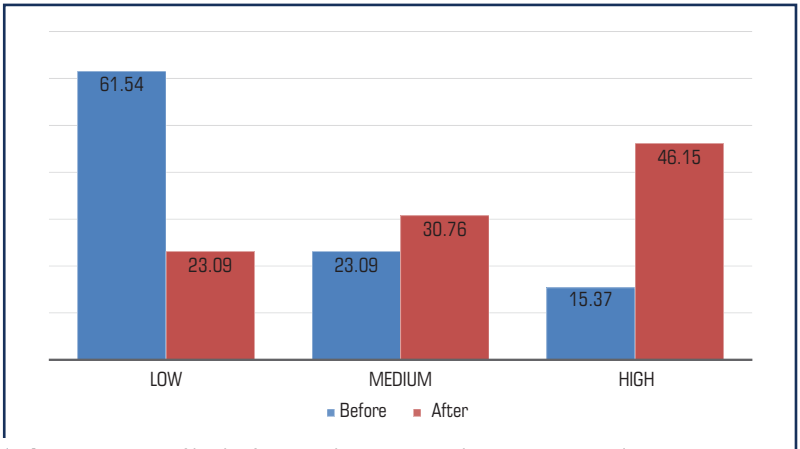
According to the results of the calculation of statistical data on the formation of the components of the organizational competence of the respondents, its generalized results by levels were obtained (**Table 1.8**, **Fig. 1.7**).

Table 1.8 Dynamics of training the components of organizational competence in students during the experiment

Components	Levels	Experiment stages				Difference
		Before		After		
		Quantity	%	Quantity	%	
1	2	3	4	5	6	7
Value and motivation	Low	16	61.54	6	23.08	–10 (–38.46 %)
	Medium	8	30.77	9	34.61	+1 (+3.84 %)
	High	2	7.69	11	42.31	+9 (+34.61 %)

● **Continuation of Table 1.8**

1	2	3	4	5	6	7
Knowledge	Low	19	73.08	8	30.78	–11 (–42.30 %)
	Medium	6	23.07	6	23.07	0
	High	1	3.85	12	46.15	+11 (+42.30 %)
Administration	Low	21	80.75	6	23.08	–15 (–57.69 %)
	Medium	4	15.38	7	26.92	+3 (+11.54 %)
	High	1	3.85	13	50	+12 (+46.15 %)
Management	Low	25	96.15	11	42.31	–14 (–53.84 %)
	Medium	1	3.85	8	30.77	+7 (+26.92 %)
	High	0	0	7	26.92	+7 (+26.92 %)
Control and correction	Low	9	34.62	6	23.09	–3 (–11.53 %)
	Medium	8	30.76	9	34.61	+1 (+3.85 %)
	High	9	34.62	11	42.30	+2 (+7.69 %)
Reflection and evaluation	Low	6	23.08	1	3.85	–5 (–19.23 %)
	Medium	10	38.46	10	38.46	0
	High	10	38.46	15	57.69	+5 (+19.23 %)
Total	Low	16	61.54	6	23.09	–10 (–38.46 %)
	Medium	6	23.09	8	30.76	+2 (+7.69 %)
	High	4	15.37	12	46.15	+8 (+30.76 %)
N = 26						



⬡ **Fig. 1.7** Dynamics of levels of training the organizational competence in students before and after the formative stage of the experiment

General conclusions on the dynamics of the main levels of formation of the organizational competence of the respondents are as follows:

– firstly, there was a significant decrease in respondents with a low level – from 61.54 % to 23.09 %, which is a significant result of the entire pedagogical experiment;

– secondly, at the same time there was a significant increase in the number of respondents with a high level – from 15.37 % to 46.15 %;

– thirdly, we have a certain positive shift in the average level – from 23.09 % to 30.76 %.

Consequently, according to the results of the formative stage of the pedagogical experiment (**Fig. 1.7**), there is a positive dynamics in the formation of organizational competence among all respondents, since their percentage, in which its formation has reached an average and especially high level, has increased significantly.

Thus, based on the generalization of the above experimental material, it is possible to single out a positive dynamics in the results of the implemented pedagogical conditions for the formation of organizational competence among respondents. In particular, this is confirmed by the positive dynamics of the levels of its formation in the majority of respondents, who at the summative stage had significantly lower results.

In addition, according to the results of the formative experiment, the task arises to confirm or refute the statistical (scientific) hypothesis – to identify the reliability of the experimental data obtained, which must be done to exclude a random combination of circumstances. Accordingly, it is necessary to formulate hypotheses about the formation of organizational competence among the respondents.

In our study, a statistical hypothesis is any assumption regarding the type or parameters of an unknown distribution law. In a specific situation of formation of organizational competence of future specialists in physical culture and sports of the Armed Forces of Ukraine, we form a statistical hypothesis as an assumption at a certain level of statistical significance about the properties of the general population according to the sample estimates.

Statistical hypothesis:

1. General statistical hypothesis – there are differences between the studied electoral population before and after the formative stage of the pedagogical experiment.

2. H_0 – no differences were found in the studied sample before and after the formative stage of pedagogical experience.

3. H_1 – differences in the studied sample before and after the formative stage of pedagogical experience were revealed.

In our study, a scientific hypothesis is a certain statement containing a specific assumption about the decision that we face in terms of the formation of organizational competence among future specialists in physical culture and sports of the Armed Forces of Ukraine. In essence, a scientific hypothesis is the main idea of a possible solution.

Scientific hypothesis:

1. *The general scientific hypothesis* is that the formation of organizational competence among respondents will be effective if additional pedagogical conditions for its formation are introduced

into the process of their military professional training in universities, namely, the confirmation of the statistical hypothesis H_1 of the experimental study.

2. H_0 – the formation of organizational competence among the respondents is not effective in confirming the statistical hypothesis H_0.

3. H_1 – the formation of organizational competence among the respondents is effective, subject to the confirmation of the statistical hypothesis H_1.

Therefore, to calculate the obtained experimental data of the pedagogical experiment, the statistical criterion of G-signs was used [23, 24], used to compare the state of some properties (features) of members of two dependent samples based on their diagnosis. It is used to compare the state of some properties (features) of members of two dependent samples based on their diagnosis. It belongs to the non-parametric criteria of statistical data analysis and is used exclusively for related samples. The G-signs test allows to determine how much the values of the corresponding properties (features) change when the associated sample is rediagnosed. This criterion is easy to use and allows to fully find out and compare the state of features or properties. In this regard, it is used for statistical processing of experimental data obtained on small samples.

It should be emphasized that when calculating statistical data, the concept of "shift" is used – the magnitude of the difference between the values of the corresponding properties (features) of the same participant before and after the formative stage of the pedagogical experiment. It should be noted that the criterion of G-signs is intended to determine the changes in the values of properties (attributes) when re-diagnosing a related sample in the direction of increasing or decreasing. In view of the foregoing, let's introduce two necessary notations:

1. The largest sum of biases is called the typical bias and is denoted by the letter n used when working with the corresponding table for this criterion. This table presents the critical values (G_{cr}) of 5 % and 1 % significance levels of this criterion.

2. The sum of shifts, which is the smallest, that is, has an atypical shift, denoted by G_{emp}. The G_{emp} value is placed on the significance axis.

An example of the result of calculating statistical data according to this criterion is shown in **Fig. 1.8**, where, according to the results of placing G_{emp} on the significance axis, it did not fall into the zone of significance.

Let's note that in the example above, the significance axis is shown upside down. The zero mark is represented by right, and the number row increases in the opposite direction. This type of location of the significance axis is reliable for some well-known statistical tests – the Wilcoxon T-test, the McNamara test and the Mann-Whitney U-test.

So, let's directly consider an example of calculating the statistical data of the formative stage of the pedagogical experiment, obtained as a result of the introduction of additional pedagogical conditions for the formation of organizational competence among respondents. It was conducted using licensed software IBM Statistical Package for the Social Sciences – a statistical package for the social sciences.

The results of the calculation are shown in **Fig. 1.9–1.11** and **Table 1.9**.

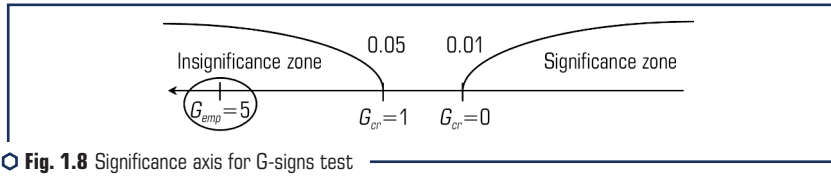


Fig. 1.8 Significance axis for G-signs test

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between Before and After equals 0	Related-Samples Sign Test	0.000	Reject the null hypothesis

Asymptotic significances are displayed. The significance level is 0.050.

Fig. 1.9 Conclusion on the statistical hypothesis

Therefore, **Fig. 1.9** shows the result of calculating the experimental data before and after the formative stage of the pedagogical experiment using the licensed software IBM Statistical Package for the Social Sciences, which confirmed the preliminary calculations. So, the median of the difference between before and after the pedagogical experiment is not equal to zero, that is, the statistical hypothesis H_0 is not confirmed.

Table 1.9 G-sign convergence for related samples

Related-Samples Sign Test Summary	
Total N	26
Test Statistic	25.000
Standard Error	2.500
Standardized Test Statistic	4.800
Asymptotic Sig. (2-sided test)	0.000

In addition, the analysis of **Table 1.9** gives us the opportunity to emphasize that the asymptotic significance (2-sided criterion) "tends" to zero, that is, the reduction of the statistical criterion of G-signs confirms the significance of the experimental data of the pedagogical experiment after the introduction of the appropriate pedagogical conditions justified by us. These conclusions of the pedagogical experiment can be extended to the entire general population – future officers – specialists in physical culture and sports in the Armed Forces of Ukraine. **Fig. 1.10** shows the sum of shifts of the results of the pedagogical experiment, including positive ones – 25, negative ones – 0 and zero (shift) – 1.

In the process of carrying out the formative stage of pedagogical diagnosis, according to the diagnostic tools justified by them, a point system for assessing respondents (from 0 to 100 points)

was chosen. Accordingly, **Fig. 1.11** reflects information on the number of respondents (26 cadets) who took part in the formative stage of the pedagogical experiment and the corresponding following statistical information – the minimum value obtained for the pedagogical experiment is 57 points, the maximum is 95 points, and the average is 81.38 points and a numerical characteristic characterizing the magnitude of the spread of quantitative characteristics relative to our average value (standard deviation) – 12.03 points.

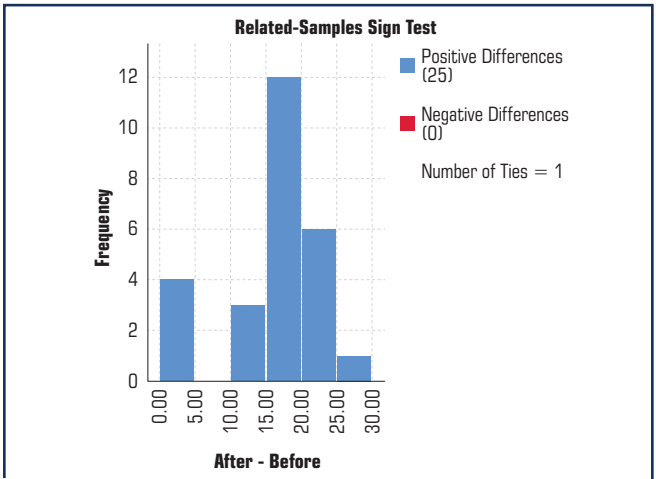


Fig. 1.10 Sum of shifts (positive, negative, zero)

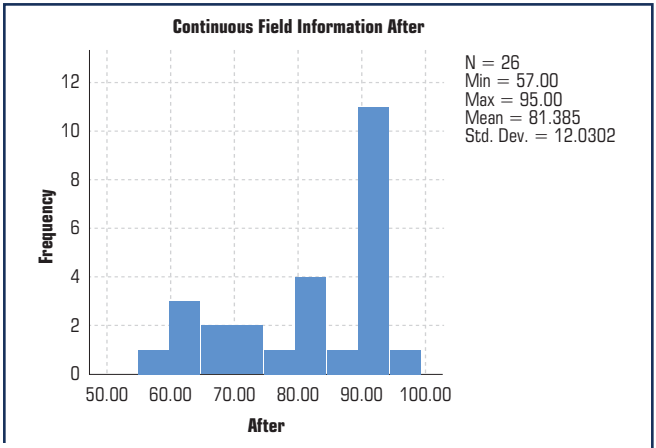


Fig. 1.11 Information on quantitative fields after the formative stage of the pedagogical experiment

For a deeper and more generalized analysis of the obtained experimental results, the method of statistical analysis of the Spearman correlation coefficient was used (using the licensed software IBM Statistical Package for the Social Sciences). The results of the correlation are presented in **Table 1.10**.

● **Table 1.10** Results of the analysis of correlations between the components of organizational competence trained in students

Correlations							
Spearman's Rho		**VM**	**Kn.**	**Adm.**	**Man.**	**CC**	**RE**
Value and motivation (VM)	Correlation Coefficient	1.000	0.705**	0.758**	0.597**	0.328	0.477*
	Sig. (2-tailed)	–	0.000	0.000	0.001	0.102	0.014
	N	26	26	26	26	26	26
Knowledge (Kn.)	Correlation Coefficient	0.705**	1.000	0.701**	0.605**	0.602**	0.586**
	Sig. (2-tailed)	0.000	–	0.000	0.001	0.001	0.002
	N	26	26	26	26	26	26
Administration (Adm.)	Correlation Coefficient	0.758**	0.701**	1.000	0.717**	0.541**	0.765**
	Sig. (2-tailed)	0.000	0.000	–	0.000	0.004	0.000
	N	26	26	26	26	26	26
Manager (Man.)	Correlation Coefficient	0.597**	0.605**	0.717**	1.000	0.590**	0.669**
	Sig. (2-tailed)	0.001	0.001	0.000	–	0.002	0.000
	N	26	26	26	26	26	26
Control and correction (CC)	Correlation Coefficient	0.328	0.602**	0.541**	0.590**	1.000	0.507**
	Sig. (2-tailed)	0.102	0.001	0.004	0.002	–	0.008
	N	26	26	26	26	26	26
Reflection and evaluation (RE)	Correlation Coefficient	0.477*	0.586**	0.765**	0.669**	0.507**	1.000
	Sig. (2-tailed)	0.014	0.002	0.000	0.000	0.008	–
	N	26	26	26	26	26	26

***Note: VM** – Value and motivation; **Kn.** – Knowledge; **Adm.** – Administration; **Man.** – Management; **CC** – Control and correction; **RE** – Reflection and evaluation*

To facilitate the task of choosing the correlation coefficient in which the variables of our study are presented, it is advisable to use the table for interpreting the size of the effect size of the correlation dependence (according to Cohen, J. (**Table 1.11**)) [3].

● **Table 1.11** Interpretation of correlation dependence effect size values (according to Cohen, J.)

Effect level	The value of the correlation coefficient
Insignificant	$0.00 \leq \lvert r \rvert < 0.10$
Small	$0.10 \leq \lvert r \rvert < 0.30$
Average	$0.30 \leq \lvert r \rvert < 0.50$
Big	$0.50 \leq \lvert r \rvert < 1.00$

Consequently, **Table 1.10** reflects the results of calculations of the relationship between the components of organizational competence among respondents and their influence on mutual formation:

1. First of all, let's analyze the correlations of the value-motivational component with other components:

– high level of correlation was found with the administrative – 0.758, knowledge – 0.705 and managerial – 0.597 components, which indicates a direct relationship between them and the presence of a large effect from this relationship;

– average level of correlation was found out with the control-corrective – 0.328 and reflective-evaluative – 0.477 components, which indicates a tangible relationship between them and the presence of an average effect size from the relationship between them.

2. Let's analyze the correlations between the knowledge of a component and other components. A positive fact is that there is a high level of correlation with all components, in particular, with value-motivational – 0.705, administrative – 0.701, managerial – 0.605, control-corrective – 0.601 and reflective-evaluative – 0.586, which indicates a direct relationship between them and the presence of a significant influence of the organizational knowledge of the respondents on all other components of the organizational competence of the respondents. This indicates that it is necessary to introduce an organizational function and relevant academic disciplines into their state standard to form the organizational competence of graduates in the specialty 017 – physical culture and sports. This fact is confirmed by the very low results of the respondents at the summative stage of the experiment, when 73 % of the respondents demonstrated a low level of knowledge of components or organizational knowledge (**Table 1.3**). The positive impact of this knowledge is observed on the formation of the following components – managerial and managerial.

3. Let's characterize the correlations of the managerial component with other components. A significant positive result of the molding experiment is that there is a high level of correlation between the management component and all other components. In particular, with the reflexive-evaluative component, the correlation coefficient – 0.765, the value-motivational component – 0.758**, the managerial component – 0.717, the knowledge component – 0.701**, and the control-corrective component – 0.541, which indicates a high level of interconnection between them. These results confirm the effectiveness of the application of contextual and subject-active methods of organizational training of respondents.

4. Let's characterize the correlation links of the managerial component with other components, after the molding stage of the experiment, they mainly have a high level of correlation. In particular, the correlation coefficient is 0.669** for the reflective-evaluative component is 0.605** for the knowledge component is 0.717** for the managerial component, and 0.590** for the control and corrective component, which indicates a relatively high correlation of interaction and the relationship between them. Between the managerial and the evidence of a direct relationship between them and the large size of the effect of this relationship.

5. Let's analyze the correlations of the control-corrective component with other components. First of all, in comparison with other components, lower correlations are observed in comparison with other components. In particular, it has an average level of correlation with the value-motivational component – 0.328, which, in our opinion, requires additional psychological and pedagogical research to clarify in detail the content and specifics of their relationship and mutual influence in the process of forming the organizational competence of the subjects. Other results are higher, but somewhat low compared to other components. This may also be evidence of the fact that professionally important qualities of respondents are not subject to rapid formation, i.e., they require long-term targeted educational work on their formation in the process of organizational training in higher education institutions.

6. A significant positive result is the correlation of the reflexive-evaluative component with other components, since it is probably the most difficult to form, because in physical education, in addition to the pedagogical aspect, it directly contains both psychological and neuropsychological aspects [25]. It has an average level of correlation with the value-motivational component – 0.477* and a high level of correlation with all other components.

The statistical criterion is a tool for determining the level of statistical significance, which ensures the acceptance of a true hypothesis and the rejection of a false one with a high probability, therefore, based on the correlation data (**Table 1.9**), it is possible to conclude that each relationship between the components has statistical significance (except for value-motivational and control-corrective – 0.102), that is, the probability that the experimental result obtained objectively represents the sample with which our experimental study was conducted.

General conclusions on the analysis and generalization of the results of the correlation analysis between the components of the organizational competence of the respondents (**Table 1.10**) are as follows:

– analysis and generalization of the correlations presented in **Table 1.9** shows that a predominantly high level of correlation was found between all components of the organizational competence of the respondents, which indicates, on the one hand, the sufficient effectiveness of the pilot study, and on the other hand, the need for targeted organizational training respondents to the upcoming organizational activities in the troops;

– a large correlation was found, a direct relationship between all components and a significant mutual effect on their formation between such components: managerial and reflexive-evaluative (0.765), value-motivational and administrative (0.758), administrative and managerial (0.717), value-motivational and knowledgeable (0.705), administrative and knowledgeable (0.701);

– the need for targeted work with respondents on their future professional activities in the troops was clarified, since their professionally important qualities are not subject to rapid formation. This indicates that, in our opinion, it is necessary, firstly, purposeful persistent educational work with respondents in their formation and self-formation as subjects of physical education and sports in military units; secondly, to form, in fact, as subjects of military professional activity and, accordingly, to form in them both military professional (as officers of the Armed Forces of Ukraine) and professional types of competence (as subjects of physical education and sports in military units) in universities [26].

Partial conclusions to **Table 1.10** are as follows:

– general correlation analysis and generalization of the results obtained showed that if the respondents have a positive factor in their organizational and administrative function in the troops, the higher the level of their values for the chosen specialty, motivation and ability to assimilate knowledge in the future specialty;

– a high correlation, a direct relationship between the components and a significant effect from the mutual influence on their formation between the managerial and reflexive-evaluative components (0.669) were established; the positive effect is due to the fact that the reflexive-evaluative component encourages introspection and evaluation of acquired managerial knowledge and their significance for future organizational activities;

– a large correlation, a direct relationship between the components and a significant effect of the mutual influence on their formation between knowledge and managerial components (0.605) was found out; the positive effect depends linearly on the acquired managerial knowledge in the field of physical training and sports in the troops;

– a large correlation, a direct relationship between the components and a significant effect of the mutual influence on their formation between knowledge and control and corrective components (0.601) was established; the positive effect is due to the desire to acquire knowledge in the chosen specialty, that is, the targeted assimilation of theoretical and practical knowledge in the future specialty, which also form the basis of the control and corrective component;

– a significant correlation, a direct relationship between the variables and a relatively significant effect of mutual formation between the value-motivational and managerial components (0.597) were established; the positive effect is due, in our opinion, to the high motivation and responsible attitude of respondents to future activities as managers in the field of physical education and sports with military personnel;

– a significant correlation, a direct relationship between the managerial and control-corrective components (0.590) and a relatively sufficient effect from mutual influence on their formation were found; the positive effect is due to the desire of respondents to acquire managerial knowledge in the field of physical training and sports in the Armed Forces of Ukraine, that is, an attempt to purposefully master theoretical and practical managerial knowledge and skills;

– a sufficient correlation was established – a high, direct relationship between the cognitive and reflexive-evaluative components (0.586) and a sufficient effect from mutual influence on their formation; the positive effect is due, in our opinion, to the fact that the reflexive-evaluative

component encourages self-analysis and self-assessment of the acquired theoretical and practical knowledge, skills and awareness of their significance and importance for future organizational activities in the troops;

– a significant correlation was established, a direct relationship between the administrative and control and corrective components (0.541) and a relatively sufficient effect from the mutual influence on their formation was found out; the positive effect is due, in our opinion, to the desire to put the acquired theoretical knowledge into practice;

– an average correlation, tactile relationship between the value-motivational and reflexive-evaluative components (0.477) were established and the average effect of mutual influence on their formation were established; this made it possible to understand that it is necessary to pay attention to the purposeful formation of professionally important qualities of respondents, that is, such qualities that directly positively affect the success of the respondents' organizational activities and contribute to their self-realization as future specialists in physical culture and sports in the Armed Forces of Ukraine; the obtained results indicate that the purposeful work of the scientific and pedagogical staff of universities is necessary to form the professionally important qualities of the respondents;

– an average correlation, a tactile relationship between the value-motivational and control-corrective components (0.328) were established and a relatively average effect of mutual influence on their formation was clarified; such a result gives grounds to assume that the stable individually mental qualities of the respondents need further special psychological and pedagogical scientific research.

CONCLUSIONS

The analysis and statistical study of the obtained experimental results of the formative stage of the pedagogical experiment confirmed the positive changes in the quantitative values of the formation of the corresponding components of organizational competence among the respondents. The generalized results of the experimental data testify to the sufficient effectiveness of the implementation of the pedagogical conditions justified by us for the formation of organizational competence among the respondents.

Statistical processing of the experimental results obtained after the formative stage of the pedagogical experiment makes it possible to emphasize that the scientific hypothesis H_1 is confirmed, and H_0 is refuted.

The results of the correlation analysis confirm the direct correlation between all components of the organizational competence of the respondents and make it possible to find out the main directions for further scientific research.

The experimental results obtained confirm the need to focus the attention of the Ministry of Education and Science of Ukraine, heads of institutions of higher education and universities on improving the standard of higher education in the specialty 017 – physical culture and sports and

the implementation of organizational competence in the content of their professional competence, since the uniqueness of their future professional activity is in an organizational component in it, especially in the Armed Forces of Ukraine.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest in relation to this research, whether financial, personal, authorship or otherwise, that could affect the research and its results presented in this paper.

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DOI: 10.15587/978-617-7319-70-1.CH2

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CHAPTER 2

LIFELONG EDUCATIONAL PROCESS: SYNERGY OF SCANDINAVIAN AND UKRAINIAN EXPERIENCE

ABSTRACT

In the context of lifelong education management, this work focuses on the current problems of adult education in Ukraine and Sweden, which acquire special significance through the prism of the "value rearmament" of a person of the 21st century, the formation of a new value consciousness of a specialist with higher education as a global ethic of a new historical era, the main components of which believe: the desire to preserve the spiritual essence of education in the conditions of its mass; formation, strengthening and multiplication of authentic personal values; upholding the idea of the priority of the development of "human in man"; multiculturalism; rehabilitation within the market of educational services of the idea of a standard. The scientific relevance of the research topic is expressed in the unsolved range of problems related to the search for the most effective forms of organization of the adult education system and the identification of pedagogical conditions for using the Swedish experience of adult education in domestic pedagogical theory and practice. The need for "lifelong learning" is justified by the rapid changes in economic conditions, technological systems and the urgent need to orient a competitive specialist to the growing amount of new data and knowledge in order to focus on finding ways to overcome skill shortages and meet educational needs under the conditions of career growth and personal improvement and development. It is emphasized that the world practice, in particular the Swedish experience, of such training is based on the modern paradigm of continuous education – "lifelong learning".

The analysis of two models of education (theoretical (knowledge) and universal (ability)) is carried out, respectively, from the standpoint of the reproduction of cultural and historical experience and the development mechanism regarding the potential opportunities for radical changes in the practice of adult education, taking into account the specifics of a traditional and dynamic society. The features of trends in adult education are clarified and it is noted that they are manifested both at the global (megatrend) and at the local levels.

Attention is focused on the author's interactive intensive course, taking into account the long-standing traditions of the rich Swedish experience regarding a carefully thought-out system of formal and informal open education for adults, the purpose of which is to improve the professional, reflective competencies of those seeking education; deepening knowledge about the process of continuous education of adults in domestic and Swedish pedagogical theory and practice;

identification of positive foreign experience and pedagogical conditions for the introduction of the "Swedish model" in the practical work of higher education institutions and other educational institutions in Ukraine, as well as in the system of domestic informal open education of adults; practice in the design of the socio-pedagogical model of the Ukrainian higher national school.

KEYWORDS

Adult education, concept of continuous adult education, new paradigm of "lifelong learning", adult education development trends, megatrends in adult education, "soft"/"hybrid skills", universal (ability)/theoretical (knowledge) models of education, development mechanism, regional (meso)/global (planetary) levels, interstate cooperation in fields of adult education, Scandinavian model of adult education.

When planning for a year, plant corn. When planning for a decade, plant trees. When planning for life, train and educate people.
Chinese proverb: Guanzi (管子) (c. 645 BC)

No matter where you live in our country, there should be good opportunities for further education. We will make sure that the situation for students in Sweden is good and that they feel safe while studying. We invest in education and research to build a stronger society.
Matilda Ernkrans, Minister of Higher Education and Research of Sweden

Lifelong learning is a dynamic process that varies depending he individual skills and motivation for self-regulated, generative learning and he life events that impose challenges that sometimes demand incremental / adaptive change and other times require frame-breaking change and transformational learning.
Manuel London, The Oxford Handbook of Lifelong Learning

...lifelong education – education that a person acquires continuously during different periods of life with the aim of acquiring social, civic, personal, professional and other competencies; ...adult education – education that an adult acquires for the purpose of personal and professional development, adaptation to social, economic and other changes in society.
Draft Law of Ukraine "On Adult Education" (Article 1)

Modern society is characterized as a society that is actively changing due to major social transformations, technological progress, information explosions, and environmental upheavals. The seriousness of humanity's global problems is exacerbated by the low level of education of people,

the inaccessibility or absence of educational programs, and the ineffectiveness of investments in education. Against the backdrop of rapid transformations, the role of the knowledge of an ordinary person, and especially of a modern specialist, is growing.

Among the most sought-after qualities of specialists: professional mobility and independence; readiness to make quick and non-standard decisions; ability to react to unexpected situations; the ability to quickly adapt to new socio-economic conditions; high level of concentration, distribution and stability of attention; willingness to change plans, ways of solving tasks under the influence of external factors; communicative qualities and social and professional responsibility; the ability to accept and implement new things in practice [1]. In this context, we are talking about a new type of specialist who is mobile and adapts to the growing demands of society and the profession, is well oriented in social demands and responds effectively to them, has a high level of professional knowledge, skills and abilities, the ability to study and improve its professional level constantly throughout its life.

Orientation to lifelong learning is recognized in European countries as a necessary condition for overcoming the socio-economic challenges they face. In a number of European documents ("A Memorandum on Lifelong Learning" (2000), "Recommendation of the European Parliament and of the Council on Key Competences for Lifelong Learning" (2006), "The European Qualifications Framework" (2008), "Council Recommendation of Upskilling Pathways" (2011), "Council Resolution on a renewed European agenda for adult learning" (2016)) emphasized the need to intensify the participation of adults in formal, informal and informal education for the acquisition and development of key lifelong competences (communication in the native language, communication in a foreign language, mathematical competence and basic competences in technologies, digital competence, formation of the ability to learn, social and civic competences, initiative and entrepreneurship, cultural awareness and self-expression).

European initiatives and steps taken to strengthen the concept of lifelong learning are the basis for a better understanding of the directions of education development in Ukraine. Acquaintance with positive foreign experience is a condition for a deeper understanding of our own problems, correcting mistakes, making optimal decisions and finding ways to form an effective domestic system of adult education.

Significant in this context is the experience of Sweden, which has long traditions and a carefully thought-out system of formal and informal open education of adults, with a significant advantage of the latter. The Swedish experience proves that adult education has become an integral part of the country's socio-economic progress, as such education allows each member of society to multiply and expand the existing stock of knowledge; contributes to the reduction of the gap in education among representatives of different generations, which arises in connection with the aging of knowledge against the background of developing technologies, the appearance of a huge amount of information and new professions; provides each citizen with additional opportunities to improve their professional qualifications, making them competitive in the labor market, thereby improving the quality of life.

Interest in studying Sweden's experience and its implementation in the practice of organizing adult education in Ukraine is also due to a number of contradictions between:

– the growing need of the adult population for education and the lack of a network of specialized educational institutions;

– a special approach to the learning process of an adult with a certain life experience and a unified approach to learning borrowed from the general school system;

– the presence of significant experience in creating opportunities for adult education in some regions of Ukraine and the lack of institutionalization of adult education at the state and regional levels;

– understanding the need to increase the level of knowledge for the purpose of self-realization and competitiveness in the labor market and the lack of educational culture of the population;

– a wide offer of commercial training programs for adults and insufficient demand for participation in them due to the low solvency of the main mass of the population;

– the democratic and free nature of non-state educational institutions for adults and the exclusion of many social groups from the educational process.

The lack of a clearly organized system of informal open education of adults and specially trained qualified personnel to work with them, weak state interest in this area of education and insufficient development of the educational and methodological base for adult education are the main factors inhibiting the development of non-state adult education in Ukraine, and determine the direction of the study of adult education in Sweden as a country with long traditions and rich experience in this field. Therefore, the relevance of using the Swedish experience within the framework of solving the problem of organizing lifelong learning is determined by the unsolved range of problems related to the search for the most effective forms of organization of the adult education system and the identification of pedagogical conditions for the use of the best European practices of adult education in domestic pedagogical theory and practice.

2.1 THE CONCEPT OF LIFELONG ADULT EDUCATION: EUROPEAN VIEW AND DOMESTIC REALITIES

The implementation of the concept of lifelong learning is a complex problem, which involves its justification within the framework of a complex of approaches: thesaurus, system-structural, axiological, acmeological, competence, personal, activity, synergistic.

The thesaurus approach, the essence and meaning of which is substantiated by Liliia Gur'e, Svitlana Sysoieva and Iryna Sokolova, Mykola Chursin, Nataliia Yaksa and others as a "new paradigm of humanitarian knowledge", is used as a methodology for the study of society and man in society and relies on the active role of the subject in the construction of socio-cultural reality. Scientists consider the main characteristics of a scientific thesaurus to be: systemic integrity and procedural continuity in the organic unity of the general, special, individual and subject – specific. In general, the thesaurus is considered as a single picture of the world reflected in concepts and connections

between them (categorical level of thesaurus presentation). The special level reflects the thesauri of knowledge included in the subject planes (a syntactically determined open information base of a certain field of science, semantically structured according to its specific relations, which are established in science or formed at the beginning of the study of the problem). At the individual (personal) level, the thesaurus is, in fact, a set of system knowledge of one individual or a group of subjects, reflected in a certain way in its or their consciousness [2].

The thesaurus approach made it possible to outline the key concepts of the concept of "lifelong learning" ("continuous learning", "adult education", "individual educational trajectory"), to substantiate their content and structure. The basis for this was the thesauri, which are formally organized dictionaries for establishing existing a priori relationships between concepts: Euro-glossary (2006), "Thesaurus UNESCO", TESE – The thesaurus for education systems in Europe (2009). Analyzing the concepts and terms of the "Encyclopedia of Education" [3], reasonable conclusions were made regarding the real state of development of pedagogical science and the studied phenomenon in the European context.

The essence and significance ***of the system-structural approach*** as a methodological basis of scientific research is revealed in the works of Semen Honcharenko, Vasyl Kushnir, Volodymyr Pavlov, Svitlana Sysoieva, Tetiana Krystopchuk and others. Scientists note that the structural-systemic approach in pedagogy is aimed at revealing the integrity of pedagogical objects, identifying various types of connections in them and bringing them into a single theoretical picture [4]. System-structural approach allows:

– to consider adult education as a continuous educational process that ensures consistency of all its components (content, forms, methods, practical training);

– to present the integrity of the structure of lifelong learning in the unity of motivational-targeted, informational-cognitive, operational-active, reflective-evaluative components;

– to substantiate the specific regularities of adult education as part of an integral system of continuous education, as the formation of a specialist's personality within the integral educational space.

The implementation of ***the axiological approach*** to the deontological training of education managers in universities is determined by the strengthening of the axiological-cultural component of management activity, which acts as a guideline for the behavior of the education manager. This approach is based on the principles of pedagogical axiology as a direction in educational research, which concerns the analysis of the content of pedagogical ideas, theories and concepts in view of their correspondence or non-compliance with the needs of the individual and society. Scientists define the essence of the approach as: a philosophical-pedagogical strategy that determines the ways of professional art development, the use of pedagogical resources for personality development and projects prospects for improving the education system, the basis of which is the principle of functional significance or value [5].

The axiological approach considers life-long learning through a system of values as generalized basic ideas about the goals of professional activity, landmarks that exist in the human consciousness of education and which are characterized by signs of significance, necessity, expediency, etc.

Thus, the axiological approach makes it possible to consider lifelong learning as a process aimed at a person's assimilation of a system of professional and personal values, which is manifested in its formation and fixation in public consciousness.

The problem of lifelong learning should be considered from the standpoint of implementing ***a competency approach***, which reflects an integral manifestation of professionalism, which is specified in the ability of an individual as a system of knowledge, skills, and readiness for professional activity. The competent approach is considered as one of the tools for improving education, determined by the demands of society (Viktor Andrushchenko, Svitlana Sysoieva, Olha Shcherbak, etc.). Its application makes it possible to identify the meta-level of lifelong learning – a set of key competencies that are necessary for all people to increase personal potential and development, expand employment opportunities, social integration and active citizenship [6].

The acmeological approach orients the learning process during life on the acmeological (creative-peak, self-actualization, self-realization) quality of personal and professional development of a person, directs the subject of self-education to achieve certain goals [7]. According to the conclusions of Valerii Antonov, Nataliia Maksymchuk and Stepan Palchevskyi, the leading tasks of acmeology within the framework of education are: determination of conditions and factors that allow a specialist to reach its own acme; development of acmeological technologies of personality development, criteria and standards of professionalism; development of acmeological models of professionalism and personality of a professional.

The synergistic approach to the deontological training of education managers in universities is based on the main provisions of synergism as a field of scientific knowledge, in which general laws of self-organization and the formation of open structures in open systems are revealed through interdisciplinary research. The importance of synergy for education is related to the awareness of the processes of self-organization and ordering in open systems, which include lifelong learning, the possibility of integrating various disciplines, a thorough study of interdisciplinary connections, a more complete implementation of the basic didactic conditions for the organization of the educational process on the basis of its main principles – scientificity, systematicity, unity of concrete and abstract [8].

The synergistic approach focuses on imbalance, instability as a natural state of open nonlinear systems, on the multivariate and uncertain ways of their development depending on the multitude of factors and conditions affecting them. Therefore, it is impossible to impose a way of existence or development on any system, but it is possible to choose and stimulate one of the options embedded in specific conditions, counting not so much on a cybernetic (management), but on a synergistic (self-regulated) process, on minor influences, which, however, coincide with a possible variant of development [3]. According to the main provisions of synergy, the educational system should be open for interaction and mutual exchange of information and "energy" with the environment; have an active basis – an initiative for self-improvement and self-organization of subjects; to have the right to choose development paths without exerting pressure on it from the outside; to have an "energetic" outlet, namely, to receive emotional satisfaction from positive changes, the results

of implemented initiatives; be oriented towards the goals of self-development, the formation of value orientations.

An important role in the process of lifelong learning is played by a person's personal characteristics: personal orientation, behavioral flexibility, professional competence, which makes it necessary to consider a personal approach within the theoretical and methodological justification of the problem of lifelong learning.

The essence ***of the personal approach*** is considered by scientists (Ivan Bekh, Lidiia Necheporenko, Olena Pehota, Valentyna Semichenko, etc.) through the prism of creating conditions for full identification and development of personal functions of the subjects of the educational process; focusing on the needs of the individual; prioritizing individuality; creating a situation of choice and responsibility; actualization of the problem of personal growth as the basis of individual independence in mastering the content of education; stimulating the development and self-development of a specialist. The personal approach takes into account the nature of the individual's perception and interpretation of environmental phenomena; is implemented through the understanding of the student as a socio-cultural individuality that constantly develops with the socio-cultural space, the construction of integral educational models, within which the function of the teacher is to assist the student in the effective and creative assimilation of information, in the development of its critical understanding [9]. Therefore, the personal approach allows interpretation from the point of view of formation and development of the personal characteristics of the specialist, its personal experience; taking into account needs, motives, abilities, activity, intelligence, individual psychological and functional characteristics.

In the conditions of globalization changes taking place in the world today, permanent education and self-improvement of a specialist becomes an urgent social need. Learning throughout life provides an opportunity not only to learn something new and update one's knowledge and skills, to develop a set of competencies, but also to study at a higher, "advanced" level, which ensures the ability of the individual to remain open to changes and to harmonize educational influences with their own individual capabilities. Undoubtedly, the significant advantages of lifelong learning should be considered:

– increasing the level of self-motivation;
– awareness of personal aspirations and formation of new personal goals on this basis;
– introduction of more competitive innovative educational programs and teaching methods;
– expansion of opportunities for each person to receive information;
– development of existing competencies in all spheres of life;
– ensuring successful adaptation to fast-moving socio-economic conditions;
– establishment of cooperation with foreign institutions;
– increasing the competitiveness of European education [10–12].

Tatiana Zotova notes: "The level of education of a working adult is an indicator of the high standard of living of a country. European highly developed countries, having a stable and well-organized system of adult education, prioritize the continuous education of the adult working population throughout their lives" [13].

The problem of lifelong learning acquires particular significance in the context of "values rearmament" of a person of the 21st century, the formation of a new value consciousness of a specialist with a higher education as a global ethic of a new historical era [14]. Domestic scientists consider its main components to be:

– striving to preserve the spiritual essence of education in the conditions of its mass, without which lifelong learning will not become a guarantee of progressive development of society;

– formation, strengthening and multiplication of authentic personal values;

– advocacy of the idea of the priority of the development of "the human in the human";

– multiculturalism, which is understood not only as a tolerant attitude to the cultures of other nationalities, but also as the ability to extrapolate from them the most valuable for the development of national education;

– rehabilitation within the market of educational services of the idea of a standard as a factor of preservation and ordering of various educational technologies and approaches, designing of educational norms as a human-centered standardization [15–17].

In view of the above, in the conditions of Ukraine's entry into the European educational space, the question of revising established approaches to the essence of the concept of "lifelong learning" is extremely relevant. The opinion of Viktor Ohneviuk is valid, revealing the main causes of the crisis of modern national education, among others (the discrepancy between the rapid changes in social consciousness, the change in values and priorities of social development; the inertia of the professional consciousness of teachers oriented to traditional values; high inertia of the traditional system of pedagogical education) refers to the prolonged isolation of the pedagogical community from the best examples of world pedagogical experience [18].

The issue of adult education was reflected in the UN recommendations "On the Development of Adult Education", adopted in 1976. This document orients the world community to solving the problems of people's access to quality education regardless of age. UNESCO's global concept of "Education for All" also focuses on adult education. According to this concept, a person's educational activity is recognized as a natural element of its lifestyle.

"EU member states can no longer exist without an effective adult education system integrated into a lifelong learning strategy, which provides participants with ever-wider opportunities to enter the labor market, improve social integration and prepare for "active aging" in the future" [19]. Therefore, continuous education is considered as the basis of active learning, which is not based solely on the transfer of knowledge, but, on the contrary, focuses on the real experience of the students of education, recognizing the value of knowledge and skills acquired accordingly. Oleksandra Dubaseniuk and Oksana Samoilenko claim: "This is not a "continuous" school, but an educational system that alternates with periods of work, professional formation, active life cycles and periods of personal inactivity. Continuous education is an educational process that lasts a lifetime, in which the integration of individual and social plans plays an important role" [20].

Another point that emphasizes the relevance of our topic. The purpose of adult education is to reduce the difference in education between generations and strata of the population and to

provide people with sufficient qualifications to enter the labor market with its constant changes, as well as to improve the quality of people's lives. In the sixties, the concept of "functional illiteracy" was introduced by UNESCO. The problem of "functional illiteracy" is acute today, when there is a huge gap between the knowledge and skills acquired by a specialist 10–15 years ago, and the demands made by society as a result of the introduction of new technologies and socio-economic transformations. There comes a time when a highly qualified specialist becomes unsuitable for further work, because in connection with rapidly growing technologies, with the appearance of a huge amount of new information, its knowledge becomes significantly outdated. Vladimir Podobed emphasizes: "Many people, having obtained a higher education, spend their whole lives on a career, but, finally, acquiring a high position, they often become (not possessing modern knowledge) simply intellectual bankrupts in a high rank. More and more often, an elderly person remains unclaimed by the potential of its not fully exhausted experience and opportunities. It acquires the syndrome of "Western" philosophy" [21].

Studies conducted by Swedish scientists [22] have shown how participation in educational programs specially designed for them affects adults. New prospects for growth are opening up for people, both in terms of career and in terms of self-realization. Their mental state improves, the factor of being competitive in the labor market increases. People of the "third age", i.e., pensioners, are marked by improvements in their general state of health, as they once again have the opportunity to learn and feel their "need" for society [13].

A characteristic feature of continuous education is that it affects all aspects of a person's life and is connected with the process that develops during life. It is a coherent integrated educational system, the purpose of which is to bring continuity to the process of personal development. It becomes effective if it is part of social practice, which in itself has an educational character. "Continuous education is the sum of professional, social and cultural practices that creates the basis for episodic educational periods, formal and informal, and organizes both continuity and discontinuity of our personal development, our social participation and our learning" [23]. In turn, **Petro Talanchuk** states: "**Continuous education** is a set of means, methods and forms of acquisition, deepening and expansion of general education, professional competence, culture, education, civic and moral maturity. For each person, continuous education is a process of formation and satisfaction of its cognitive requests and spiritual needs, development of aptitudes and abilities in the network of educational institutions of various forms of ownership or through self-education" [24].

If continuing education is a systematized, purposeful training of a person during its life, then continuous training can be defined as a way of life of a person, the process of acquiring the necessary knowledge, abilities, skills and qualities as the need for them arises, which also occurs throughout life. At the same time, the very status of education in social life is also changing. It turns into the field of educational services, which is affected by market mechanisms (demand and supply, competition, marketing, etc.).

The following scientists address the problem of the development of modern adult education in Ukraine and its regions: Serhii Boltivets, Ludmyla Vovk, Larysa Lukianova, Olena Martirosyan,

Serhii Pryima, Larysa Sihaeva, Svitlana Sysoieva, Olha Sytnyk, Larysa Tymchuk, Liliia Shynkarenko, Viktoriia Davydova, Tymofii Desyatov, Dmytro Dzvinchuk, Nataliia Demianenko, Olena Zhizhko, Svitlana Kovalenko.

According to Sergei Zmeev, the field of educational services for adults is characterized by a number of specific features that distinguish it from the traditional education system:

1) variety of content, types, forms, methods of education;

2) a high degree of "openness", that is, the freedom of students to choose the level, place, time, cost, terms, content, forms, methods of teaching and, in fact, teachers;

3) orientation to the requests of clients or consumers, when they do not adapt to existing educational services, but, on the contrary, create such educational services that are necessary for the consumer;

4) non-guaranteed quality of provided educational services;

5) a high degree of competitiveness (competition) between different types of services;

6) introduction of cost assessment (payment) of educational services [25].

The sphere of educational services has a greater degree of autonomy and independence. It turns into a kind of subordinate organization that serves customers, first of all in the person of individual individuals, then social groups, social institutions (including the state), society as a whole.

Thus, the expanded role of education in the life of a person and society is that it is increasingly turning from a social, authoritative state institution into a sphere of services that acts on the order of social development subjects (families, schools, public organizations, etc.). Therefore, the main task of education is to create the necessary conditions for training a person as a means of realizing its life goals, taking into account social conditions and tasks. That is, the main consumer, on whom the sphere of educational services is currently oriented, is primarily an adult with individual educational needs. Therefore, adult education became a connecting link in the transformation of the field of education into the field of educational services, which is guided in its activities by the concept of continuous education.

On January 12, 2023, another important step was taken on the path of legislative regulation of the adult education system – at a meeting of the Verkhovna Rada of Ukraine, the draft Law of Ukraine "On Adult Education" (registration number 7039), which was developed by a working group under the Ministry of Education and Science, was considered and adopted in the first reading of Ukraine [26].

As MESU notes, the Draft Law is extremely relevant and expected in society:

– firstly, it regulates and systematizes relations in the adult education system, ensures the development of this component of education in the medium term;

– secondly, the draft law is European integration, it was developed to fulfill task 1431 of the Action Plan for the Implementation of the Association Agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their member states, on the other hand, approved by a Cabinet resolution of Ministers of Ukraine dated October 25, 2017 No. 1106 [27].

The draft law, taking into account the experience and main recommendations of the European Union on the development of lifelong education and adult education, as well as domestic developments on this issue, proposes a new ideology of adult education, which involves the reindustrialization of this system. In particular, new purposes, architecture and forms have been determined, and a new thesaurus has been formed:

– the components of the adult education system, which determine the main directions of activity in this area, are clearly defined and fixed at the legislative level;

– the draft law lays down the creation of opportunities for the personal and professional development of a person, its social activity, which ensures the satisfaction of various social and economic needs at the level of the community, region, and state;

– mechanisms aimed at the formation of a network of service providers in the field of adult education, diversification of forms of activity, wide involvement of civil society, competition of educational programs, quality of educational services, recognition of learning results obtained, in particular, through informal education, are established [27].

In addition to the above, the norms of the draft law establish a joint distribution of duties, powers and responsibilities between the state, employers and citizens:

– leadership in the formation of policy in the field of adult education and active participation in this process by local authorities and the public are secured by the state;

– responsibility for its implementation is divided between the state (which promotes, creates conditions, provides support), local authorities (which create conditions and ensure implementation), employers (who ensure the professional development of their employees) and citizens who are aware of the need for continuous training, as a result of which a social "fashion" for lifelong learning is being formed;

– it is the distribution of powers and responsibilities that makes it possible to ensure the specific needs of regions and communities regarding adult education, diversify financial resources, and make the adult education system more effective [27].

These and other norms of the draft law:

– establish adult education as a separate component of education that has social value;

– lay the institutional foundations of cooperation between the state, local self-government bodies and providers of adult education, as well as provide for elements of self-regulation in this field of education;

– provide state support for adults to obtain formal education again through the introduction of preferential lending;

– determine the types of service providers in the field of adult education and their features, powers of management bodies, quality assurance system and economic relations in the field of adult education;

– lay the legislative basis for the functioning of adult education centers, primarily as communal centers of educational activity among the adult population, which corresponds to the policy of decentralization, in particular the expansion of the powers of local authorities, the formation and implementation of regional education policy in accordance with the needs of communities [27].

2.2 CURRENT TRENDS IN THE DEVELOPMENT OF ADULT EDUCATION

The construction of the adult education system should be based on global trends. The latter testify to the fact that neither natural wealth, nor an advantageous territorial position, nor the achieved level of socio-economic development, but only the human factor, its potential opportunities in a dynamic society will determine the level of development of a particular state. The outlined problem can be solved by fundamentally changing the practice of adult education, taking into account the characteristics of a traditional and dynamic society. Accordingly, **education** can be considered from **two positions:** as ***a reproduction of cultural and historical experience*** and as ***a mechanism of development***.

The first position reflects the theoretical (cognitive) model of education, which ensures the transmission of cultural and historical experience between generations. Its result is reproduction of people's knowledge, abilities and skills necessary for the realization of existing functions in society (cultural, social, economic, etc.).

The second – universal (capable) appears as a mechanism for the development of society, which is implemented through the preparation of people for innovative activities through the development of their consciousness. In this case, education not only ensures the acquisition of cultural and historical experience by individuals, but also their acquisition of the ability to learn new types of activities and relationships between people. This understanding corresponds to the ability model of education, characteristic of a dynamically developing society [28, 29].

In the materials of UNESCO, ***the main task of adult education is emphasized*** – *to provide a person with a set of knowledge and skills for an active creative life in modern society*. It is about the development of a person throughout its life as a specialist, citizen, and individual, and therefore, about continuous education that accompanies a person in different periods of its life.

According to Svitlana Arkhypova, "continuity involves such an entry of adults into educational activities, which is able to increase their confidence in the future, help to correctly interpret life phenomena, promote the consolidation of people on the basis of universal values, develop social and professional mobility, that is, determine for one's meaning of life, one's place in society, one's human and civic duty" [30]. With the emergence of modern demands from education seekers, new trends in adult education appear, as education must adapt to new technological changes. In addition, adults increasingly realize the importance of education for their personal development, companies understand that a highly qualified employee is their competitive advantage.

The dictionary of the Ukrainian language [31] defines the term "tendency" as:

1) direction of development of something;

2) aspiration, intention, characteristic of someone, something;

3) leading thought, ideological orientation.

In the dictionary of adult education, edited by Vasyl Kremen, it is established that trends in the development of education are distinguished as directions in which the development of education as a system takes place [32].

Olena Lokshyna defines a trend as a basic category of comparative pedagogy, which is interpreted not only from the standpoint of identifying the direction of movement, but also in the context of the essence of qualitative changes occurring during this movement [33].

Nataliia Lavrychenko emphasizes that trends are forms of expression of regularities, which in general have no other reality than the trend, except the approach to something in the trend [34].

Olha Pastushok [35] believes that the identification of educational development trends covers various spheres of influence on educational processes, in particular: the formation of the educational policy of the state, for example, the documentary content of the European and national normative legal field; social, economic, demographic indicators of society's development; availability and availability of regional and national statistical data on education for thorough analysis.

Olena Ohiienko assigns to trends the function of determining the direction of development, considering that they "are realized in the contradictory interaction of the determining force of the laws of the internal structure, functioning, development of the educational sphere, on the one hand, and external factors due to the influence on the educational integrity of other cultural subsystems – on the other" [36].

Trends are revealed at the global (megatrend) and local levels.

A megatrend is a significant global trend in certain types of activities, thoughts and attitudes and their expansion (for example, in lifestyle, professional modernization, mobility). Based on research by Harvard University and the online educational platform edX [37], megatrends in adult education include:

1. The emergence of the so-called "hybrid skills" – it is no longer enough to study only one field of knowledge, besides, a person will need completely different skills throughout its life. Training will become more personalized and will be built on a modular basis.

2. Multi-channel education – along with training that requires the physical presence of a teacher, the role of online education will grow. In addition, online education should be so adapted to the real world that a person can immediately apply the skills it has acquired in its own activities.

3. The need for "soft" skills – communication skills, the ability to work in a team, critical thinking and the ability to make quick decisions will remain the main skills that employers will expect from their employees and that the education system should teach students.

In accordance with the aforementioned megatrends, the EU Commission [38] declares the need for investment in adult education. Among the social and real advantages of investing are: an increase in the level of employment and income of the population in conditions of more active participation in public life, an increase in the level of labor productivity and improvement of the training of specialists, a reduction in the costs of unemployment benefits, benefits in connection with retirement, others social payments, improvement of the general state of health of the population, reduction of the crime rate, continuous growth of the level of well-being and self-realization of adults [39].

In accordance with this, the Commission of the Council of Europe formulated recommendations to national governments regarding the popularization of adult education:

1. Well-educated citizens are a key prerequisite for sustainable development, an important component of economic development and a democratic society. Therefore, the concept of lifelong learning is an important component of the strategic development plan of the EU member states. Adult education should be recognized as an integral part of the lifelong learning strategy.

2. Legal regulation of adult education should be stable, including the definition of the role of different providers, financial obligations, clear definition of the rights of citizens to access adult education, standardization of standards and their monitoring.

3. Adult education is a public good, so the governments of the countries must commit to financing this area in accordance with the needs of citizens.

4. Ensuring cooperation between various providers of educational services, social partners and civil society.

5. Special attention should be paid to the needs of marginalized population groups. This includes socially vulnerable groups of people, ethnic minorities, immigrants, elderly people, etc. Equal access to education is a value that is recognized in all European countries and ensures the economic well-being of the population.

6. Creation of effective mechanisms for recognizing the results of non-formal and informal education.

7. Ensuring an effective system of training specialists in the field of adult andragogist education.

8. Promotion of international research and exchanges of scientists, teachers, all interested parties working in the field of adult education [38].

Based on the recommendations, the European Commission published the Action Plan in the field of adult education – "It's never too late to learn". Adult education as a part of continuous learning is becoming a global trend of the 21st century for EU member states.

Oleksandra Dubaseniuk and Oksana Samoilenko believe that considering the trends in the development of adult education by moving from the abstract to the concrete will allow to form a holistic view of the trends in the development of adult education at the beginning of the 21st century [12]. Accordingly, the criterion for delineating trends in the development of adult education in the studied country is the presence of the influence of global (macro) trends in the development of adult education on paradigmatic changes in the system of adult education in a specific country, the transformation of its goals and content.

In this context, 10 trends in the development of adult education at the global (planetary) level have been identified:

1. Pragmatization. The transition to a market economy in the second half of the 20th century intensified the pragmatism of people's consciousness and behavior. This quality becomes a determining and important factor in the formation of the welfare policy of the citizens of the European countries. Pragmatism as a personality quality is characterized by decisiveness, purposefulness, creative enthusiasm, ingenuity and constructivism. In their integrity, the outlined factors of pragmatism allow an adult to successfully adapt to new socio-economic conditions. Pragmatization contributed to the revision of educational institutions' approaches to adult education, intensifying

the need for creative, creative specialists capable of solving non-standard industrial situations. Hence the need to update adult education.

2. Updating adult education means bringing its scientific content into line with the dynamic structure of modern knowledge. In this regard, "education should not only provide relevant knowledge in various fields, reflecting new discoveries, new information that appears in the world, but also reflect the changes taking place in society, determine its future" [40]. The question arises about the adequacy of the adult education system to the energy-informational realities of modern society, which leads to the paradigmatization of adult education.

3. Paradigmatization – a change in paradigmatic dominants of the educational field, a transition from a reproductive to a creative system of adult education, the fundamental principles of which are:

– the principle of competitiveness (competition of education systems of different countries – the basis of society's progress);

– the principle of openness (an open society needs "open" (publicly available), non-leveled adult education);

– the principle of systemicity (the system of adult education acts as the main damper of the global crisis both for the world as a whole and for individual countries in particular) [41].

4. The openness of adult education is revealed both at the level of its availability to all education seekers, regardless of their age, physical condition, place of residence, citizenship, etc., and at the level of choosing any form of education that is most convenient and acceptable at the moment, which leads to multivariate and stratified adult education.

5. Multivariate is the creation of equal conditions for successful education for every adult student. **Stratification** is the organization of a step-by-step educational process that provides the opportunity to achieve at each stage the level of education that corresponds to the capabilities and interests of an adult. Each level is a period that has its own goals, terms of study and characteristic features. Multivariate and stratified result of individualization, differentiation and diversification of adult education.

6. Individualization – taking into account and developing the individual characteristics of adult students in the learning process takes place due to **the differentiation** of educational programs, forms, methods and methods of learning. The choice of means, methods and content of education is determined by the adult student itself in cooperation with the teacher/andragogue. This leads to **the diversification** (diversity) of educational institutions and their management bodies, educational programs and methods of their assimilation. There is a development of a multi-level system of adult education, which provides greater mobility in the pace of learning, the choice of professional activity; forms the ability and desire of adults to master new specialties and professions. Therefore, taking into account the modern needs of society, adult education increasingly gravitates towards informatization, virtualization and innovation.

7. Informatization is usually associated with computerization and development of technical means of education. This is really a very important moment in the formation of a new system of adult educa-

tion as online education, in particular MOOC (Massive Open Online Courses). The majority of modern educational institutions, public organizations, associations and adult education centers present their educational programs on various online resources, which also affects the methodology of adult education, in particular, the practice of "reverse learning" appears: students watch the teacher's lecture online, each at their own pace, and they come to the classroom already prepared for a practical lesson.

Virtualization of adult education is the use of social media and educational games for the purpose of learning educational material. The modern education system increasingly uses video blogs, Facebook networks, and YouTube for educational purposes, forming the necessary practical skills and abilities in adult students. A separate plane is occupied by the gamification of education – learning by means of online games, which creates favorable conditions for increasing the motivation to study, the level of personal harassment. Informatization and virtualization of adult education leads to the emergence of a new trend – innovation.

8. Innovativeness of adult education is an opportunity to include advanced scientific developments in the educational process, which creates favorable conditions for the training of specialists capable of further implementing innovations in the course of their professional activities, and increasing their competitiveness on the labor market.

In the complex, the outlined trends act as a projection of the continuity of lifelong learning.

9. Continuity is a process of permanent, lifelong self-learning, self-development and self-improvement of a person in the rapidly changing conditions of life in modern society.

As a result of the complex identification of outlined trends, adult education at the beginning of the 21st century became a factor in the sustainable development of society and its social stability. This principle was proclaimed at the meeting of the heads of government of various countries in Copenhagen on March 6–12, 1995, according to which an action program was adopted, which recommended to the UN member states measures to create within the framework of sustainable socio-economic development both at the national and at the international level, conditions favorable for the social development of countries, reducing the level of poverty, expanding productive employment, promoting social integration. The ultimate goal of social stability is to increase and improve the quality of life of citizens, one of the factors ensuring which is adult education [42].

10. Currently, in European countries, there is a permanent and intense process of improving national education systems taking into account the leading world trends and national educational traditions. Modernization of educational structures, processes and technologies is aimed at improving the quality of education, development of a complete system of fundamental knowledge, skills of independent creative thinking. In these conditions, the need to rethink the role of adult education in the formation of a sustainable, socially oriented society, capable of creating equal conditions for everyone to access education, to professional and personal fulfillment, to become a competitive specialist in the global labor market, is increasing. Therefore, **the tendency to national self-identification of adult education** in the conditions of metamodernism and globalization is increasing, which is expressed in the organic combination of adult education with the history and educational traditions of a specific country, preservation and enrichment of the national values of the people.

The analysis of the tendency towards national self-identification of adult education in the conditions of postmodernism and globalization prompts to consider a set of trends in the development of adult education at the regional (meso) level, among which the leading ones are:

1. *The trend towards cultural transformation in education.* The decisive factor in solving the global problems of the 21st century is the establishment of the interaction of cultures (world dialogue of cultures), the intensive development of intercultural communications, carried out in all spheres of people's life [43]. The future of adult education is its development as a culture-forming, culture-creating and culture-transforming educational system, which defines the principle of intercultural dialogue, respect for the historical memory and national dignity of nations and peoples, individual personality as a key way of transformation of social value orientations as a whole as the main principle of its functioning.

2. The transformation of social value orientations leads to a change in educational approaches – *from knowledge to competence*, with an emphasis on the formation of a competitive specialist in the labor market. Teaching adults real practical skills will help them find employment, improve their professional qualifications and undergo retraining in the most favorable conditions.

3. As a result of the tendency to change educational approaches, there is *a tendency to acquire knowledge with the help of new technologies (Internet, media context, video series, etc.),* which creates a cumulative effect in adult education. That is, there is an accumulation and strengthening of those knowledge, abilities and skills that in the future will cause an "explosive reaction" in the adult's professional self-realization, will lead to an increase in its competitiveness on the labor market.

4. For this, the education system must be sufficiently flexible. It should be such as to perceive new teaching methods in the context of "the phenomenon of half-life of a specialist, when professional training and self-training of a specialist does not always keep up with the pace of scientific and technological development of modern society" [40]. Accordingly, there is *a tendency to effectively integrate the latest technologies into the system of adult education*. The consequence is the emergence of a need for systematic updating of goals, content and technologies of adult education; in the adjustment of educational programs taking into account the achievements of scientific, technical and social progress and the requirements of world education standards.

5. The outline conditions *the tendency to deepen interstate cooperation in the field of adult education.* The activity of this process depends on the potential of the national education system and on ensuring equal conditions for partnership relations between states and individual participants of academic cooperation. The considered trends in the development of adult education at the regional (meso) level contribute to the emergence of specific trends at the local (micro) level – the level of a specific country, determined by their own goals and features of the adult education system, the nature of implementation and new social requirements for the level of training of specialists. Considering this, adult education at the local level appears as a multicultural, socially oriented phenomenon; open to the formation of an international educational environment; national by the nature of culture and supranational by the nature of knowledge.

2.3 THE SCANDINAVIAN MODEL OF ADULT EDUCATION: ANALYTICAL REVIEW

2.3.1 GENERAL OUTLINES OF THE SCANDINAVIAN MODEL OF ADULT EDUCATION

The Scandinavian model of adult education has its own characteristics, due to its history and the conditions of the modern stage of the development of society in the Nordic countries. It seems interesting and important to study the Swedish experience not only as a role model, but as a basis for mutual understanding, cooperation, and integration. This is all the more relevant because Swedish organizations of various levels are increasingly actively spreading their influence on Ukraine, involving both state organizations, academic institutes, and non-commercial public organizations in cooperation.

Adult education in Scandinavia dates back to the mid-nineteenth century and is associated with the name of the Danish educator and public figure Nikolaj Frederik Severin Grundtvig (1783–1872) and such a unique educational institute as the folk higher school (folk high school). The first public school was founded in 1868, and the first educational associations appeared in Sweden at the beginning of the 20th century.

Another important phenomenon is ***"folkbildning"*** informal open education of adults in Sweden. The meaning of ***"folkbildning"*** includes the following meaning – social education and human dignity. "Folkbildning" is a free and voluntary approach to adult education, where social equality and the maintenance of equal relations between different social and cultural groups are the main focus and a number of target audiences are envisaged (people with insufficient education, the disabled, immigrants, the unemployed, etc.). The main ideas and key words that define the essence of the concept of "folkbildning" are "democracy, self-education, voluntary participation, free forms of activity", the main goal is to reduce the gap in the knowledge of representatives of different generations and give people the opportunity to realize their inner potential. "Folkbildning" occupies a special place in the Swedish education system (**Fig. 2.1**) [13].

Each person has a national character, which is not inherited, but develops due to the process of learning, within the framework of which the individual is gradually socialized, that is, it feels its true belonging to the community of people of its family, city/village, country. For this purpose, national history and national language are extremely important.

The activities and ideas of Nikolaj Frederik Severin Grundtvig in the second half of the 19th century covered to one degree or another all the Scandinavian countries, reaching in the 20th century even Finland, which was independent at that time. Each country has its own characteristics of the existence of the "folkbildning" system and higher folk schools. Adult education systems in Sweden and Finland are very similar. National features of the systems are in Denmark, Norway and Iceland.

Thus, for more than a hundred years in Sweden, there has been a tradition of voluntary grouping of people in groups for the purpose of attending lectures and classes of interest to them, participating in cultural events and projects.

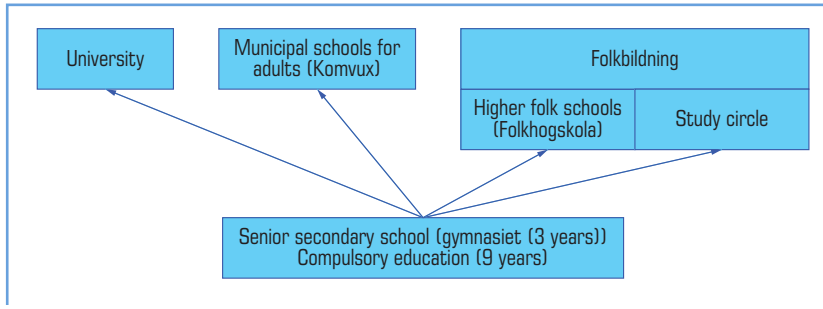

Fig. 2.1 The place of "folkbildning" in the Swedish education system

2.3.2 PERIODIZATION OF THE HISTORICAL DEVELOPMENT OF ADULT EDUCATION IN SWEDEN

Adult education in Sweden can be divided into *three periods. **The first***, from the end of the 19th century to the beginning of the 1960s, reflects the great contribution of general adult education to the renewal of the Swedish nation. Study groups (study circles) and folk higher schools (in some sources folk high schools are called folk schools) provided new educational opportunities to adults who did not study well in their youth. Self-education became a symbol of this period.

Palm would later call Swedish social democracy a "democracy of learning circles", thereby paying tribute to the role of active citizens and collaborative learning in the development of Sweden's modern democracy.

The second period began in the late 1960s and lasted almost twenty years. It can be briefly described as **"the construction of the Swedish model of adult education"**. During the 1970s, some policy decisions were made that aimed to create a developed system of non-formal adult education. Ensuring free access and the possibility of an influx of new students to various educational institutions were the most important components of this model.

At the municipal level, all adults were provided with support in completing secondary education, overcoming the problems of functional illiteracy, as well as providing ample opportunities for self-education through evening courses.

The "Swedish model of education" absorbed the pan-European ideas of "life time learning" – lifelong education.

The third period began in the mid-1980s. At that time, decisions were made in the Swedish Parliament to find new sources of funding and a more flexible organization of adult education. The system of professional development was separated from the Ministry of Education and was headed by a now specially created Council – the National Council for Adult Education (Folkbildningsradet), which development was carried out by both education authorities and bodies regulating labor relations.

Another decision concerned the opening of new opportunities for paid adult education. Parliament decided to create so-called "revolving funds" by taking 10 % of the profits of large companies. About six billion Swedish crowns were spent on corporate training in five years, starting in 1986. This policy had a strong impact on adult education related to work, advanced training and retraining.

2.3.3 GOALS AND VALUES OF ADULT EDUCATION IN SWEDEN

People's movements, state interests and market incentives – all these factors at the present stage play a significant role in the development of adult education. It can be said that it was the popular movements that gave rise to the idea of adult education. The state takes special care of it, providing all opportunities for growth and development. Today, when the state has practically exhausted its possibilities of providing adult education with the necessary resources, views are increasingly turning to the market economy.

Adult education in Sweden is characterized by ***two distinctive features***, namely: **independence** and **voluntariness**, first declared in 1944 in a report on education. Independence means freedom from the interference of state and any other bodies in the education process. Voluntary means a completely voluntary procedure of participation in training.

The system of educational courses – **learning circles** – helped to create a special tradition of democratic discussions, the idea of which is tolerance for the opinions of interlocutors, respectful attitude to valid arguments and collectively adopted decisions. These principles are the basis of the organization of specific work in study groups. It is this approach that allows participants to actively influence the content and curriculum of the courses.

The very essence of education is **the interaction of "participants"** (Swedes even lexically emphasize such interaction, calling those who study in folk schools "participants", not "students"), based on their experience, views, mutual influences, joint responsibility for what happens during training.

Today, adult education in Sweden has the following **goals**:

– with the help of education to overcome the gap between different layers of the population on the way to equality and social justice;

– to promote the growth of adults' ability to learn to understand, critically perceive reality and participate in cultural, social and political life, as well as to contribute to the development of a democratic society by increasing the level of their education;

– to teach adults to fulfill the various responsibilities that arise during their working life and to promote full employment, thereby advancing the path of development and progress of society;

– to provide every adult with a wide range of opportunities to supplement and improve their educational level;

– in Sweden, adult education is open to anyone who would like to change their occupation, learn something new, improve their professional knowledge.

2.3.4 FORMS OF ORGANIZATION OF ADULT EDUCATION IN SWEDEN

The basis of citizens' participation in the development of democracy is such a method of education as folk higher schools (folkhogskola), in which participants gather in study groups (study circle). With such an organization of training, students learn not only the subject, but mainly interaction on a democratic basis. A group is usually a small group of listeners/students who meet for joint classes once a week in the evening. Classes are aimed at studying any topic or implementing a cultural project. The group usually consists of 5 to 12 participants, including a supervisor or teacher. Classes in circles are imbued with the spirit of democracy and students' own responsibility for the educational process. Yes, the participants themselves determine the lesson plan based on their needs and interests. An important part of the classes is the exchange of experience and knowledge between the participants, and the analytical analysis of the studied material.

There are 147 public higher education institutions in Sweden, in which 40,000 students study and 150,000 students of short-term training courses and clubs. Some of them are owned by various public, political and religious organizations, others function under the auspices of Landstings and local self-government bodies.

People who have reached the age of majority study in folk schools, and people with incomplete secondary education have preference for enrollment. Due to the fact that public schools are absolutely free to develop educational programs taking into account their profile, students have the opportunity to express their wishes regarding the subject and direction of the educational process in accordance with their knowledge, interests and needs.

A distinctive feature of education in folk schools is work on given topics and certain projects. This form of classes allows students to fully realize their experience of professional and social activities. Education in these schools is differentiated depending on the level of preparation of students, classes are held on different topics. Each school has long-term study programs that provide a sufficient level of knowledge for admission to universities. In addition, there are specialized thematic training programs, for example: music, mass media and informatics, theater, hygiene and sanitation, and many others.

Long-term study programs are designed for a period from one semester to several years. Short-term courses are designed for a period of one to two to seven days. Education in folk schools is free.

The level of involvement of the population in these forms of education is exceptionally high. About 75 % of Swedes between the ages of 18 and 75 have taken or are taking part in study groups. Approximately 40 % participated in one or more study groups in the last three years. 13 % attended short-term courses at national higher schools, and 8 % were students of long-term educational programs [44].

Almost 350,000 study groups are organized annually, in which about three million participants are engaged. Since many people participate in several circles, the "net" number of participants varies from one and a half to two million, while the entire population of Sweden is slightly more than 8 million [44].

A significant part of educational and cultural-educational work is conducted in close cooperation with public, labor and other organizations, which themselves are either members or owners of cultural-educational associations and unions.

In Sweden, there are 11 educational associations, which, like public schools, are supported by the government. Here are the names of some of these educational associations:

– People's University (Folkuniversitetet);
– Civic Educational Association;
– Educational Association of the Sports Confederation;
– Christian Educational Association and others.

All 11 educational associations have more than 270 member organizations in their composition. In total, the number of local branches of all associations in the country exceeds 900. Each Association works according to a certain profile, which depends on the type of public, labor, or political organization that is part of it [44].

Educational groups, folk schools, and educational associations annually hold cultural programs for fifteen million participants and visitors. These are concerts, theater productions, lectures, exhibitions, festivals and many other events.

2.3.5 STATE SUPPORT FOR ADULT EDUCATION IN SWEDEN

The state's involvement in the promotion, organization, and financing of adult education in Sweden is strong and comprehensive. Almost the entire powerful system of formal, non-formal and informal education is overseen and sponsored by the state.

The main goal that the state sets for itself when developing adult education is to accelerate the democratic development of society. The conditions of state grants are declared in the law "On State Subsidies for Free Education of Adults". In 1991, the Swedish National Council for Adult Education was established [45], which implements policy in this area. The Council is a non-profit organization that unites three members: the National Federation of Educational Associations, the Federation of Village Councils and the Organization of the People's Movement of Higher Schools. In 2000, the Swedish National Council allocated about 2 million Swedish kroner to the development and support of educational associations, 1 billion 260 million Swedish kroner to public universities, 10 million to experimental work in associations and schools, and 15 million to the work of the National Council itself. In 2000, the state allocated a total of about 2.5 billion kroner for adult education.

The scope of the Council's activities includes not only the distribution of funds and financial reporting, it also evaluates the activities of organizations involved in adult education, administers an information network, conducts research, conferences. Current tasks in the activity of the Council today are: monitoring of free education and policy in this field, development of information opportunities, coordination of international contacts.

The Information Service of Swedish National Higher Schools [46] is a member of the Council and collects information about 147 national higher schools. This Service produces and distributes catalogs and informational materials about folk schools.

2.3.6 THE NORTHERN PEOPLE'S ACADEMY AND ITS SIGNIFICANCE IN PROVIDING ADULT EDUCATION IN SWEDEN

The Nordic Popular Academy (Nordens Folkliga Akademi) [47] is a joint institute for all Scandinavian countries: Sweden, Denmark, Finland, Norway, Iceland, the Faroe and Åland Islands, which also cooperates with the Baltic countries and European institutes in the field of adult education. NFA is located in the south-east of Sweden, in Gothenburg, on the picturesque banks of the river Gote.

The activities of the Academy cover such areas of adult education as pedagogy based on socio-cultural education; dialogue between formal and informal education, between education and the labor market; continuous education in the development of competence, information technologies, and active civic participation; international exchange of best practices.

All these areas are based on the foundation of history and culture common to the Scandinavian countries, the same understanding of democratic values and dialogue between non-governmental organizations. The task of the Academy is to support and develop cooperation, to spread research in adult education both between the countries of Scandinavia and with the nearest neighbors in Europe.

Lecturers, project managers and administrative staff of NFA are people from different Scandinavian countries. Working languages are Swedish, Finnish and English. Every year, more than a thousand teachers, researchers, artists, writers, social workers, politicians and leaders of non-governmental organizations participate in seminars and conferences organized at the Academy. NFA also participates in many pan-European projects.

The pride of the Academy is a library and information center specializing in non-formal adult education and andragogy. There are books in Scandinavian and English. Guests of the Academy are accommodated right there, as the Academy has a hotel with single rooms for 30 people.

Such an optimistic picture of a learning society is the reality in Sweden today. However, experts say that the market orientation of the economy may in the future create a kind of division into "classes" based on educational level, since the unemployed, immigrants, and declassified elements have "equal opportunities" only ideally, in words. In fact, the transformation of the idea of continuous ("lifelong") education can proceed not only by expanding the rights of citizens, but also turn into a mechanism of some kind of "sorting".

So, the model and current state of adult education in Sweden as a unique system with historical roots, rapid development today and problems of growth in the future is, in our opinion, of interest to domestic organizers of adult education, researchers dealing with this issue. The study of this system can give food for thinking about the existing reality in the education of adults in our country.

2.4 INTERACTIVE INTENSIVE COURSE FOR PROCESSING QUALIFICATION AS A REFLECTION OF THE "SCANDINAVIAN TRACE" IN UKRAINE

The domestic context of solving the problem of lifelong learning focuses on the understanding and implementation of positive foreign experience, in particular the experience of Sweden, regarding the organization of adult education. Such experience is the basis of the interactive course developed by us – an intensive course **in** professional development **"Lifelong educational process: 'Scandinavian trace'"**.

The aim of the mentioned course is to improve the professional, reflective competences of the trainees; deepening knowledge about the process of continuous education of adults in domestic and Swedish pedagogical theory and practice; identification of positive foreign experience and pedagogical conditions for the introduction of the "Swedish model" in the practical work of the institution of higher education and other educational institutions in Ukraine, as well as in the system of domestic informal open education of adults; exercise in design socio-pedagogical model of the Ukrainian higher national school.

Forming the content and structure of the proposed course, the authors proceeded from the fact that the European model of adult education is considered as a flexible and contextualized object of regulatory arrangement, based on a system of approaches, among which the main ones are: competency-based, cultural, structural-systemic, person-oriented, reflective, active, interdisciplinary.

According to the complex of these approaches, the interactive course is an intensive professional development course "Lifelong educational process: 'Scandinavian trace'" contains a complex of core worldview ideas, the interaction of which determines the formation of the synthetic personality of a modern specialist.

Among such ideas, the main ones are:

1. Ontological ones, which contain a generalized picture of the development of the theory and practice of adult education in Sweden, its main regularities, reveal the peculiarities of the organization of such education, the nature of the influence of social and cultural phenomena on the development of the concept of "lifelong learning".

2. Epistemological, within which the cognitive attitude of a person to the world and itself in the context of self-development and self-education is revealed, the possibilities of cognition, its limits, the most optimal forms and methods of cognitive activity of a person during life are determined, the criteria of the truth of acquired knowledge in the conditions of rapid social changes are clarified.

3. Axiological ones that make it possible to understand the values of education throughout life, its meaning as a process and result, the definition of social ideals of education and professionalism at every stage of a person's life.

4. Cultural, within which education throughout life is considered as a component of national culture.

Structural and logical scheme of the intensive professional development course "Lifelong educational process: 'Scandinavian trace'" is represented by the following elements:

1) the theoretical and methodological aspect of lifelong learning (revealing the essence of the Concept of continuous adult education, scientific approaches to solving the problem of organizing adult education);

2) socio-administrative aspect (providing knowledge about the relationship between society and man in the context of its continuous education, the social environment of value-activity existence of a person as an individual and a specialist, adult education as an unlimited and open area of research into the problems of human existence, the main trends in the organization of adult education);

3) technological aspect (acquaintance with the experience of Sweden regarding the organization of adult education; analysis of the Swedish practice of using forms and methods of adult education, modeling of the "technologies" of the successful implementation of the Swedish experience in Ukraine).

In accordance with the above-mentioned elements, the course is an intensive professional development course "Lifelong educational process: 'Scandinavian trace'" includes 3 modules:

1. Concept of continuous education of adults.
2. Trends in the development of adult education.
3. Scandinavian model of adult education.

Briefly, the content of each of the modules is presented above in paragraphs 3.2–3.4 of this chapter of the monograph. We emphasize that the interactive feature is its practical orientation, which involves the performance of reflection tasks and creative tasks for each module. However, the technological aspect of the offered course is reflected not only through such tasks. The final work for the students of the course is the development of a socio-pedagogical model of the Ukrainian higher national school based on the study and generalization of the experience of the organization of national schools in Sweden. Approximate components of such a model are:

1) management;
2) directions and types of activity;
3) principles and methods of work;
4) priority groups of listeners;
5) conditions necessary for the effective operation of such a school.

The interactive course is that it can be taught in full-time, correspondence and distance learning. Internet resources (Microsoft PowerPoint, Google Slides, FreeMind, Canva, Prezi, SlideBoom, Glogster) offered as part of teaching have a dual purpose: they are tools for creating a bright, meaningful presentation of the final work and at the same time serve as a means of learning, digital education, improving work skills with presentation services.

Thus, the implementation of the course is intensive professional development "Lifelong educational process: 'Scandinavian trace'" will provide an opportunity to deepen and expand the students' knowledge of the theory and practice of adult education in domestic and foreign contexts, to saturate

the lifelong learning process with the content of the main categories that reflect the system of universal and national values (education, culture, progress, humanism, democracy, professionalism, etc.), will contribute to the improvement of the constructive skills of students, will ensure the synergy of Swedish and Ukrainian experience in the organization of adult education.

CONCLUSIONS

The substantiation of the need to introduce the Scandinavian experience into the domestic theory and practice of adult education is based on the principles of general and special purpose, which are used to forecast the development of pedagogical objects:

1. The principle of objectivity, which within the scope of our study is aimed at overcoming contradictions, in particular at the level of developing the theoretical and methodological foundations of adult education (between the need to modernize organizational forms and methods of adult education in Ukraine, caused by the reform of the educational sector as a whole and the strengthening of European educational trends during life, and the imperfection of the existing system of adult education; between the presence of positive experience of adult education in foreign countries and insufficient analysis and understanding of it for implementation in Ukraine).

2. The principle of knowledge related to the solution of the problem of the introduction of positive European, including Swedish, experience of adult education, which involves not only ascertaining the effectiveness of such, but also building on the basis of its study effective models of adult education in Ukraine, developing prognostic directions for the introduction of this experience in domestic theory and practice.

3. The principle of determinism, which records the existence of objective connections between the permanent education of a specialist and the socio-cultural and economic progress of society.

4. The principle of the unity of theory and practice, which provides for the determination of the methodological orientation of prognostic activity in the form of a systematic approach to the organization of adult education.

In view of the above, we consider it necessary to implement an intensive professional development course "Lifelong educational process: 'Scandinavian trace'" in the context of solving the problem of adult education in Ukraine.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest in relation to this research, whether financial, personal, authorship or otherwise, that could affect the research and its results presented in this paper.

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DOI: 10.15587/978-617-7319-70-1.CH3

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CHAPTER 3

INNOVATIVE EFFICIENCY MODELS IN FOREIGN LANGUAGE COMMUNICATION: LIFELONG LEARNING AND MULTICULTURALISM

ABSTRACT

This research aims to design innovative efficiency models for foreign language communication, with a focus on lifelong learning and multiculturalism. The paper proposes the integration of flipped classroom, task-based, and immersion models into a vision of technology application to enhance language learning along with a few others. The key objectives are to: (i) evaluate the effectiveness of flipped classroom, task-based, and immersion models in promoting language learning, lifelong learning, and multiculturalism; (ii) explore the potential of technology application in supporting these models and enhancing language learning; (iii) develop a comprehensive framework that integrates the flipped classroom, task-based, and immersion models with technology to promote efficient and effective language learning; and (iv) provide recommendations for language educators and policymakers on how to implement these innovative models in foreign language teaching and learning. Overall, the findings of the research present an innovative design for efficiency models that incorporate technology and promote lifelong learning and multiculturalism in foreign language communication.

In addition to the proposed design and key objectives, this paper also considers the challenges and implications of implementing innovative efficiency models in foreign language communication. One major challenge is the need for training and support for both educators and learners to effectively utilize technology and innovative teaching methods. Another challenge is the potential for unequal access to technology and resources, which may disadvantage some learners. The implications of implementing these models are far-reaching. By promoting lifelong learning and multiculturalism, learners can develop intercultural competencies and expand their perspectives. This can contribute to a more inclusive and interconnected global community. Additionally, incorporating technology into language learning can improve access to resources and increase efficiency, ultimately enhancing the quality of education.

In conclusion, while there are challenges to implementing these models, the potential benefits and implications are significant, making them a worthwhile pursuit in the field of foreign language communication.

KEYWORDS

Innovative efficiency models, foreign language communication, lifelong learning, multiculturalism, flipped classroom approach, task-based learning, immersion models, technology application, language learning resources, student-centered learning, language immersion, intercultural competencies.

In today's increasingly globalized world, foreign language proficiency is becoming a vital skill for personal and professional success. The ability to communicate effectively with people from different countries and cultures is crucial in numerous fields, including business, academia, politics, and tourism.

Foreign language communication has become increasingly important in today's multicultural world. As globalization continues to accelerate, people from different countries and cultures are interacting more frequently, and foreign language skills have become essential for social, cultural, and professional success. In this extended context, it is analyzed to which extent effective foreign language communication in a multicultural world should be of value.

Firstly, foreign language communication is essential for building cross-cultural relationships. Language is a key element of cultural identity, and learning to communicate in a foreign language is a powerful way to show respect and appreciation for another culture. By learning another language, people can better understand the values, customs, and traditions of other cultures, and develop more meaningful and authentic relationships with people from different backgrounds. In addition, foreign language communication is a valuable tool for promoting cultural awareness and reducing intercultural misunderstandings, conflicts, and stereotypes.

Secondly, foreign language communication is crucial for economic and professional success in a globalized world. As businesses expand across borders, multilingual employees are in high demand, and foreign language skills can give individuals a competitive edge in the job market [1, 2]. It is agreed with Christiane Lütge, Thorsten Merse and Petra Rauschert that foreign language communication is essential for successful negotiation, networking, and collaboration in international business settings. This is because it enables individuals to build trust, establish rapport, and communicate effectively with people from different cultural backgrounds [1, 3].

Thirdly, foreign language communication is vital for personal and intellectual growth. Learning a foreign language is an intellectually stimulating and rewarding experience that can broaden our horizons, expand our knowledge, and enhance our cognitive abilities. Further, it also provides opportunities for personal growth, such as improving self-confidence, communication skills, and adaptability. Furthermore, foreign language communication can help learners better understand their own language and culture by highlighting linguistic and cultural differences and similarities.

These ideas provide insight into the importance of foreign language communication in a multicultural world, and the benefits it can bring for personal, professional, and cultural growth.

However, following the results of the previous multiple studies at the National University of Life and Environmental Sciences of Ukraine (Kyiv, Ukraine), Drohobych State Pedagogical University

after Ivan Franko (Drohobych, Ukraine), Kryvyi Rih State Pedagogical University (Kryvyi Rih, Ukraine), etc., based on traditional language learning models, it has been identified that the traditional approach for foreign language teaching and effective communication has often been ineffective in achieving high levels of proficiency, especially for adult learners at the foreign language centers found in many Ukrainian universities, which provide continuous learning services and aim at improving linguistic and cultural portfolios of teachers and business people from various backgrounds.

Therefore, innovative efficiency models in foreign language communication have challenged traditional language learning methods and emphasized the need for lifelong learning. By creating opportunities for personalized feedback, real-world communication, and self-directed learning, these models have shown promise in achieving higher levels of foreign language proficiency. In a globalized world where communication and cultural understanding are increasingly vital, the importance of such models cannot be overstated.

That said, the aim of the chapter lies in the innovative design of efficiency models in foreign language communication, which can incorporate the required need for multicultural communication and modern technology.

From this perspective, it is stated that traditional language learning models, which are typically based on memorization, repetition, and drills, have been criticized for their inefficiency in producing long-term language proficiency and communicative competence. This is because they often fail to provide learners with the opportunity to develop the skills necessary for real-world communication, such as the ability to understand and produce authentic language, negotiate relevant meaning, and engage in social interaction [4]. In this extended answer, it is crucial to analyze the inefficiency of traditional language learning models, what needs to be improved and provide references to support our analysis.

To start with, traditional language learning models often focus on grammar rules and isolated vocabulary, which can lead to a gap between language learning and language use in real-world contexts [5]. For example, learners may be able to conjugate verbs and recite vocabulary lists but struggle to understand and produce authentic language in meaningful ways. This can limit their ability to communicate effectively with native speakers and may hinder their language learning progress [4].

Next, given the domestic results of the quantitative studies based on the students' feedback regarding confidence, motivation and excitement to speak a foreign language, traditional language learning models often prioritize accuracy over fluency, which can lead to a lack of confidence and reluctance to communicate in real-world settings; it is also noted in the studies by Diane Larsen-Freeman [5]. This is because learners may be more concerned with making mistakes and being corrected by teachers or peers, rather than focusing on the message they are trying to convey. Rod Ellis [4] explains that this can hinder their ability to develop fluency and communicative competence as they may be hesitant to take risks and engage in authentic communication.

In addition, traditional language learning models often do not provide learners with the opportunity to develop intercultural competence, which is essential for successful communication

in a multicultural world [6]. It is agreed with the scholar that intercultural competence refers to the ability to understand and appreciate different cultural perspectives, and to adapt to different communication styles and norms. Without this ability, learners may struggle to build cross-cultural relationships and navigate the cultural complexities of real-world communication.

Consequently, to improve language learning, Rob Ellis [4] proposes that a more communicative and task-based approach should be adopted, where learners are encouraged to use language in meaningful, real-world contexts. Moreover, learners should be given the opportunity to develop intercultural competence through exposure to authentic materials and interaction with native speakers and other learners from diverse cultural backgrounds [6]. This can be achieved through the use of technology, such as online language exchanges and immersive virtual environments, which provide opportunities for authentic communication and cultural exchange.

These references along with the domestic survey data and research findings highlight the inefficiency of traditional language learning models and the need to adopt more communicative and task-based approaches to language learning. They also emphasize the importance of intercultural competence and the use of technology to enhance language learning and provide authentic opportunities for communication and cultural exchange.

With more argumentation expected, recent research in Ukrainian and Eastern and Western European pedagogy has provided insight into the effectiveness of traditional language learning models, as well as the benefits of adopting a more communicative and task-based approach to language learning.

For example, a study conducted in Ukraine by Oksana Chaika [7] found that a task-based approach to language learning was more effective in improving the communicative competence of learners compared to traditional methods that focused on grammar and vocabulary instruction. The study concluded that task-based language teaching provided learners with the opportunity to use language in meaningful and authentic contexts, which led to the development of communicative competence and increased motivation to learn. Similarly, a study conducted in Poland by Piotr Romanowski [8] found that a communicative language teaching approach was more effective in improving the speaking proficiency of learners compared to traditional grammar-focused instruction. The study concluded that communicative language teaching provided learners with the opportunity to engage in real-world communication and develop fluency and communicative competence; in addition, by focusing on the cultural component in language teaching, the findings of the study may help language teachers identify in their class the students' most common values and attitudes as components of intercultural sensitivity and "predict the potential areas of communication misunderstandings and failures between Polish learners of English and representatives of other cultures" [8].

In contrast, a study conducted in Turkey by Hacer Hande Uysal and Mehmet Bardakci [9] found that traditional grammar instruction was still widely used in language classrooms, despite its inefficiency in promoting long-term language proficiency and communicative competence. The study suggested that language teachers needed to be trained in communicative language teaching

methods on top to the discussed hypotheses and provided with the resources necessary to implement them effectively.

Furthermore, a study conducted by Regina Kaplan-Rakowski and Alice Gruber [10] found that the use of technology in language learning, such as online language exchanges and virtual immersion environments, was effective in providing learners with authentic opportunities for communication and cultural exchange. The study suggested that technology could be used to supplement traditional classroom instruction and provide learners with additional opportunities to develop inter-cultural competence. Some further aspects with an emphasis on understanding individual differences were also detailed in the study by Ping Li, Jennifer Legault, Alexander Klippel and Jiayan Zhao [11].

Overall, recent research in Ukrainian and Eastern and Western European pedagogy has highlighted the inefficiency of traditional language learning models and the benefits of adopting a more communicative and task-based approach to language learning. This includes the use of technology to provide learners with authentic opportunities for communication and cultural exchange. However, there is still a need for language teachers to be trained in communicative language teaching methods and provided with the necessary resources to implement them effectively.

In pursuit of the result delivery under the declared objectives, on top of the previous survey findings compiled with the questionnaires and class observations, this study adopted a systematic literature review as the research method to investigate the available literature on innovative efficiency models in foreign language communication. A systematic literature review is a research method that involves a structured and comprehensive approach to reviewing the available literature on a particular topic or research question [12]. It aims to identify, evaluate, and synthesize all relevant studies, using a set of predefined inclusion and exclusion criteria and a comprehensive search strategy.

Next, the goal of this review is to provide a comprehensive and unbiased summary of the evidence base, which can inform decision-making, policy-making, and future research in the area of innovative efficiency models in foreign language communication. As compared to a narrative review, which is a more qualitative and interpretive approach to reviewing the literature [13], a systematic literature review is considered to be more objective and rigorous. Similarly, as a scoping review aims to map the range and extent of available evidence and identify key concepts, theories, and methodologies in the literature, this method is employed in the study because it involves a broad and exploratory approach to reviewing the literature on innovative efficiency models in foreign language communication.

Another method, an integrative review, on the other hand, combined the results of both quantitative and qualitative studies as it was aimed to identify strengths and weaknesses of the evidence base. It was partially adopted to analyze the findings of the earlier research surveys and questionnaire data from the interviews with foreign language teachers and instructors, as well as selected groups of student respondents to give their opinion and feedback on the implementation of the discussed technology in a foreign language classroom, with a special focus on multicultural communication for teaching, learning, and business purposes in future. This method involved a synthesis of

the findings of multiple studies that investigated different aspects of innovative efficiency models in foreign language communication.

To summarize, a systematic literature review was decided to be used as the leading research method because of its comprehensive and structured approach. This made it possible to define the relevant study inclusion and exclusion criteria, conduct a comprehensive search of relevant databases, and critically evaluate and synthesize the findings of the studies. By adopting the systematic literature review, it became possible to provide a comprehensive and unbiased summary of the evidence base, which could inform the development of innovative efficiency models in foreign language communication. The other above-specified methods were used in combination to conduct a comprehensive review of the literature on innovative efficiency models in foreign language communication via lifelong learning and multiculturalism.

On such premise, it is found that in recent years innovative efficiency models have emerged to address the issue of lifelong learning as a key component. Additionally, lifelong learning is an approach to education that emphasizes the need for ongoing, self-directed learning throughout a person's life. This approach has become increasingly relevant in language learning, as research has shown that long-term, consistent exposure to a foreign language is key to achieving high levels of proficiency. Innovative efficiency models in foreign language communication have thus focused on creating lifelong learning opportunities and encouraging learners to take a proactive role in their language education.

Lifelong learning is becoming increasingly important in the context of foreign language communication, as globalization and internationalization are leading to greater intercultural interactions and cross-border collaborations. The theoretical framework of the study highlights strengths and weaknesses of foreign language communication and lifelong learning. In particular, Pornapit Darasawang and Hayo Reinders [14] examine the benefits and challenges of lifelong learning for English language learners, including the role of motivation, self-regulation, and autonomy in lifelong learning. The authors argue that lifelong learning is essential for language learners to maintain and improve their language skills, especially in today's rapidly changing global environment.

Zoltan Dörnyei and Stephen Ryan [15] also discuss the role of motivation, self-regulation, and lifelong learning and, by plunging deeper, explore the psychological factors that influence language learning. The authors argue that lifelong learning is essential for language learners to achieve long-term language proficiency and to cope with the challenges of living and working in multilingual and multicultural environments.

Some more research emphasizes the role of lifelong learning in language education, including the challenges and opportunities that arise from lifelong learning. It is argued that lifelong learning is essential for language learners to develop intercultural competence and to become effective communicators in multilingual and multicultural contexts. It is evidenced by the Common European Framework of Reference for Languages (CEFR), a framework for language learning and assessment that focuses on lifelong learning and the development of communicative competence. Overall, these references highlight the importance of lifelong learning for foreign language

communication, emphasizing the need for language learners to maintain and improve their language skills, develop intercultural competence, and become effective communicators in multilingual and multicultural contexts.

In addition to the mentioned above, multiculturalism plays a crucial role in effective foreign language communication, as it enables individuals to understand and appreciate diverse cultural values, beliefs, and practices, which are essential for effective communication with people from different cultural backgrounds. In this regard, it may be appropriate to provide a detailed explanation of the role of multiculturalism in effective foreign language communication and support the ideas with relevant references (**Fig. 3.1**). There is a clear vision of the four key components for efficiency in foreign language communication.

Fig. 3.1 Role of Multiculturalism for effective foreign language communication
Source: Authors' design

Understanding cultural differences: multiculturalism provides individuals with a deeper understanding of cultural differences, which is essential for effective foreign language communication. According to Michael Byram [6], intercultural competence involves the ability to understand and interpret cultural differences and to use this knowledge to communicate effectively with people from different cultural backgrounds. Therefore, multiculturalism helps individuals develop this competence by exposing them to diverse cultural experiences and perspectives.

Building empathy and respect: multiculturalism also plays a critical role in building empathy and respect for people from different cultures, which is essential for effective foreign language communication. It is agreed with Claire J. Kramsch [16] that empathy involves the ability to put oneself in the shoes of others and to understand their perspectives, beliefs, and values. To this part, multiculturalism helps individuals develop empathy by exposing them to diverse cultural experiences and by encouraging them to appreciate and respect cultural differences.

Enhancing language learning: multiculturalism also enhances language learning by providing learners with authentic cultural contexts and by helping them develop intercultural competence, which is essential for effective foreign language communication [6]. According to the Council of Europe [17], intercultural competence involves the ability to communicate effectively with people from different cultural backgrounds and to understand and appreciate diverse cultural values, beliefs, and practices. Ultimately, multiculturalism provides learners with the opportunity to develop this competence by exposing them to diverse cultural experiences and perspectives.

Facilitating communication: multiculturalism also facilitates communication by enabling individuals to understand and appreciate the diverse linguistic and cultural backgrounds of their interlocutors. Claire J. Kramsch [16] notes that effective communication involves not only the mastery of linguistic forms but also the ability to use language appropriately in different cultural contexts. In this regard, multiculturalism helps individuals develop this ability by exposing them to diverse cultural experiences and by encouraging them to appreciate and respect cultural differences.

To take the discussion further, a contrastive analysis of the role of multiculturalism for effective foreign language communication in Ukraine and Europe (**Fig. 3.2**) reveals some similarities and differences.

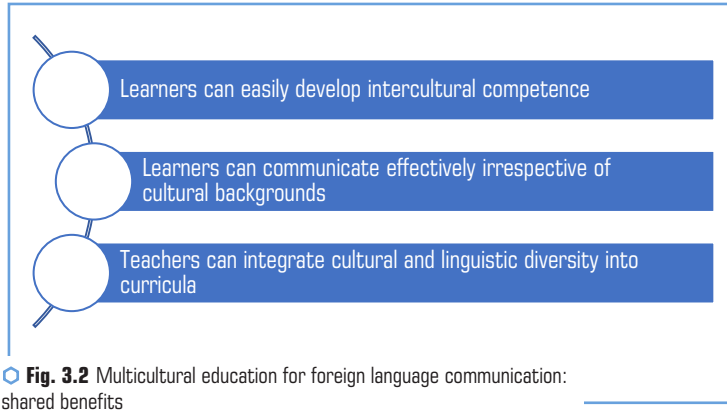

Fig. 3.2 Multicultural education for foreign language communication: shared benefits
Source: Authors' design

In Ukraine, research has shown that multiculturalism plays a critical role in foreign language education, as it enables learners to develop intercultural competence and to communicate effectively with people from different cultural backgrounds [18]. Similarly, in Europe, research has highlighted the importance of intercultural competence for effective foreign language communication and has emphasized the need to integrate cultural and linguistic diversity into language education [19].

However, there are also some challenges associated with the implementation of multiculturalism in foreign language education in Ukraine and Europe (**Fig. 3.3**).

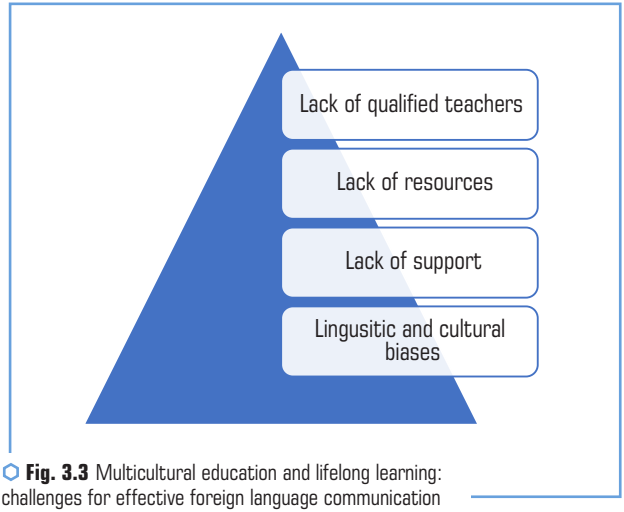

Fig. 3.3 Multicultural education and lifelong learning: challenges for effective foreign language communication
Source: Authors' design

One of the main challenges is the lack of qualified teachers who can effectively integrate cultural and linguistic diversity into language education [19]. Another challenge is the lack of resources and support for teachers who want to incorporate multiculturalism into their teaching practices [18]. Additionally, there is a need to address the linguistic and cultural biases that exist in foreign language education and to promote more inclusive and equitable practices that respect and value cultural and linguistic.

In conclusion at this stage of the review, while the role of multiculturalism for effective foreign language communication has been extensively researched in Ukraine and Europe, there are still challenges that need to be addressed to fully integrate cultural and linguistic diversity into foreign language education. These challenges include the need for qualified teachers, resources, and support, as well as the promotion of inclusive and equitable practices that respect and value cultural and linguistic diversity.

Consequently, the further steps and actions by stakeholders and other actors in the education settings may reveal certain gaps in lifelong learning and address the evident need of designing and implementing efficiency models for communication and foreign language communication, in particular. Following the literature review, it is thus identified that efficiency models in foreign language communication based on lifelong learning and multiculturalism require an integrated approach that considers both the cognitive and affective domains of language learning. Within the aim and scope of the data obtained through class observations, teachers and students' feedback, and relevant surveys at Ukrainian universities, it is proposed to consider some possible efficiency models that can be used to promote effective foreign language communication (**Fig. 3.4**).

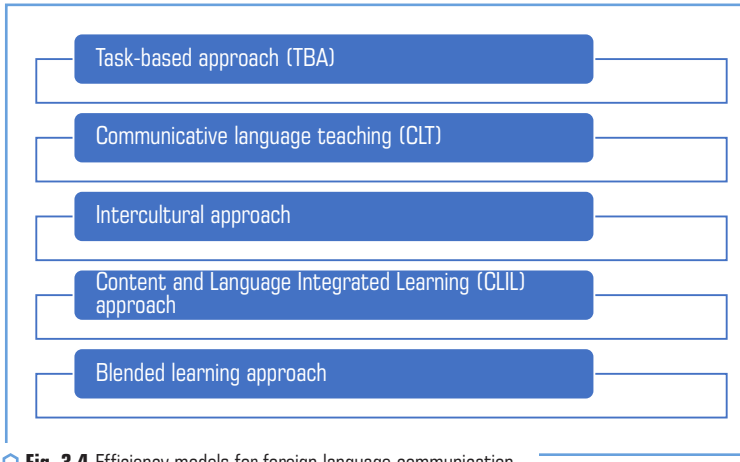

Fig. 3.4 Efficiency models for foreign language communication
Source: Authors' design

The task-based approach: this approach (to be discussed in detail as set forth) focuses on the practical use of language in real-life situations. It emphasizes the importance of language tasks that are relevant and meaningful to learners. In addition to linguistic knowledge, learners are encouraged to develop their intercultural communicative competence by exploring cultural differences and similarities.

The communicative language teaching (CLT) approach: this approach aims to develop learners' communicative competence, which includes both linguistic and sociolinguistic skills. CLT emphasizes the importance of authentic communication in real-life situations and uses a range of activities to promote meaningful communication between learners.

The intercultural approach: this approach emphasizes the importance of intercultural competence in foreign language communication. It focuses on developing learners' ability to understand and appreciate different cultural perspectives and to adapt their communication style accordingly [6, 20].

The Content and Language Integrated Learning (CLIL) approach: this approach involves the integration of language learning with subject matter learning. It promotes the development of both language and content knowledge, as well as intercultural competence through the exploration of cultural similarities and differences related to the subject matter [21].

The blended learning approach: this approach combines traditional classroom instruction with online learning. It offers learners the flexibility to learn at their own pace and provides opportunities for personalized learning. In addition, blended learning can help promote intercultural competence through the use of digital media and collaborative online activities [22].

It should be emphasized that an integrated approach that considers both cognitive and affective domains of language learning is essential to promote effective foreign language communication based on lifelong learning and multiculturalism. These models can be used as a background framework for designing language programs that promote intercultural competence, linguistic and socio-

linguistic skills, and the ability to communicate in real-life situations. What is suggested looking into under consideration of this research goes to the three models for enhanced quality and efficiency in foreign language communication via a multicultural lens and enabled lifelong learning (**Fig. 3.5**).

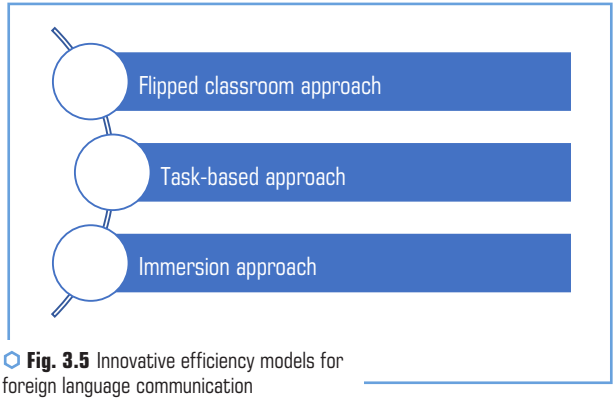

Fig. 3.5 Innovative efficiency models for foreign language communication
Source: Authors' design

One such model is the "flipped classroom" approach, which reverses the traditional classroom model by having students study course material at home and using classroom time for interactive, communicative activities. This model encourages learners to take responsibility for their own learning and provides opportunities for more personalized feedback and interaction with instructors.

The flipped classroom approach is an innovative teaching method that has been gaining popularity among educators in recent years. This approach involves inverting the traditional order of instruction, where students are given access to pre-recorded lectures, videos, or reading materials before attending the class. In class, the teacher can then focus on facilitating discussion, addressing questions, and providing guidance to students, rather than lecturing. In this way, students can take more control over their learning and engage in active learning processes.

Ukrainian and European researchers have been actively studying the flipped classroom approach in comparative and contrastive studies. Some of these studies include the work by Karyna Razumna and Olha Riabchuk [23] on comparing the effects of traditional and flipped classroom on student learning in a higher education setting in Ukraine. This study compared the effectiveness of traditional and flipped classroom approaches on student learning outcomes and found that the flipped classroom approach resulted in better academic performance and higher levels of student engagement. Next, the research conducted by Eugenia Smyrnova-Trybulska, Nataliia Morze and Olena Kuzminska [24] focuses on a comparative study of teaching methods in Poland and Ukraine. This study compared the flipped classroom approach with other teaching methods and found that the flipped classroom approach was more effective in promoting active learning and improving student engagement than the other methods and approaches in foreign language teaching, learning and communication.

Another valuable opinion is by Cassandra Santhanasamy and Melor Md Yunus [25] who performed a systematic review of flipped learning approach in improving speaking skills andthe findings of their study evidence that self-regulated learning, interaction, motivation and achievement are the key themes that promote the benefit of flipped learning to improve pupils' speaking skills. This particular study looked into the implementation of the flipped classroom approach in European and American universities and found that the approach was effective in promoting student-centered learning and improving student performance in both contexts. Other studies also find that the flipped classroom approach is more effective in promoting student engagement and improving students' linguistic competence.

To summarize the findings, these and other studies provide evidence of the effectiveness of the flipped classroom approach in promoting student-centered learning and improving student outcomes in various educational contexts (**Fig. 3.6**).

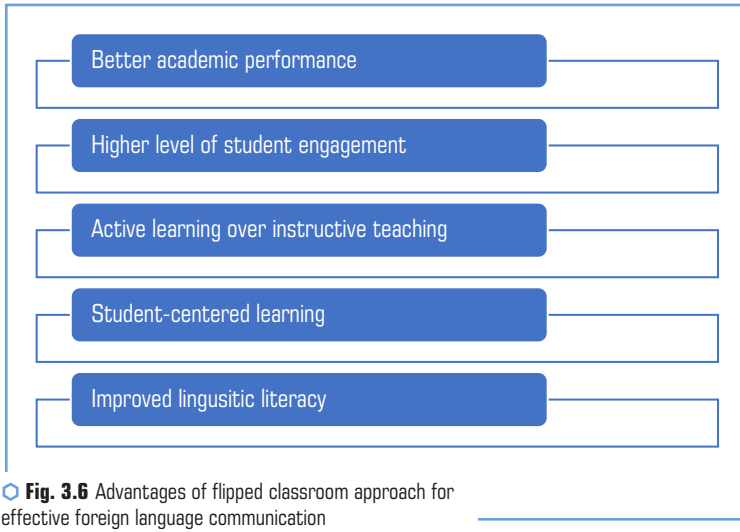

Fig. 3.6 Advantages of flipped classroom approach for effective foreign language communication
Source: Authors' design

While the flipped classroom approach has gained popularity among educators and students for its potential benefits, such as promoting active learning and improving student outcomes, it also presents some challenges and implications (**Fig. 3.7**).

Some of the most significant challenges and implications include the following:

1. *Technological requirements:* the flipped classroom approach often involves the use of technology, such as videos and online learning platforms, which requires both educators and students to have access to technology and a stable internet connection. This can be a challenge for students who do not have access to such resources, leading to unequal access to learning opportunities [26].

2. *Preparation time:* preparing pre-recorded lectures and other learning materials for the flipped classroom approach can be time-consuming for educators, especially for those who are new to the approach. Additionally, students may need to spend more time outside of class to review the materials and prepare for in-class activities, which may be a challenge for some students [26, 27].

3. *Student engagement:* in a flipped classroom, students are expected to take more responsibility for their learning, which can be challenging for some students who are used to a more traditional teacher-centered approach. Moreover, students may be less motivated to engage with the learning materials outside of class if they are not adequately motivated or if they do not understand the relevance of the materials [26].

4. *Assessment:* assessing student learning in a flipped classroom approach can be challenging as students may have different levels of engagement and participation in the in-class activities. Additionally, teachers may need to develop new methods of assessment to ensure that they are measuring the intended learning outcomes [26, 27].

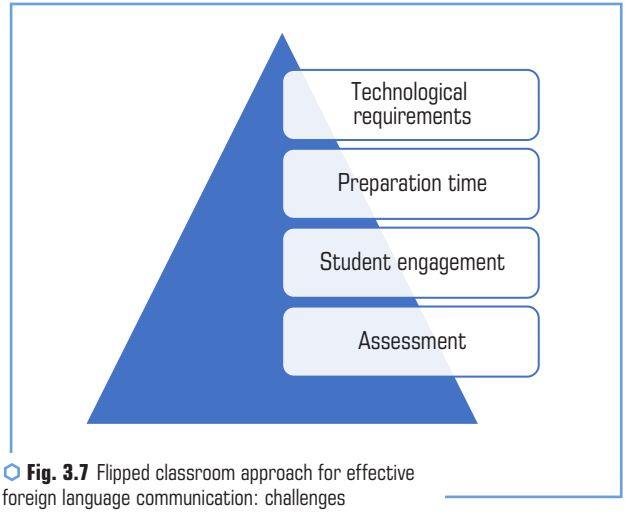

Fig. 3.7 Flipped classroom approach for effective foreign language communication: challenges
Source: Authors' design

Despite the challenges specified as identified via classroom observations and based on the surveys conducted at the above-mentioned universities, the flipped classroom approach has several implications for teaching and learning. These include, without limitations, more personalized learning, active learning, flexibility, and teacher-student interaction (**Fig. 3.8**):

1. *More personalized learning:* the flipped classroom approach allows students to work at their own pace, review materials as needed, and receive individualized attention from the teacher in class [27, 28].

2. *Active learning:* the flipped classroom approach emphasizes active learning and student engagement, leading to a more interactive and collaborative learning experience [28].

3. *Flexibility:* the flipped classroom approach provides flexibility for students to review materials at their own pace, which can be especially useful for students who need more time to understand the concepts [28].

4. *Teacher-student interaction:* the flipped classroom approach promotes more teacher-student interaction, which can lead to a better understanding of student needs and a more personalized learning experience [28].

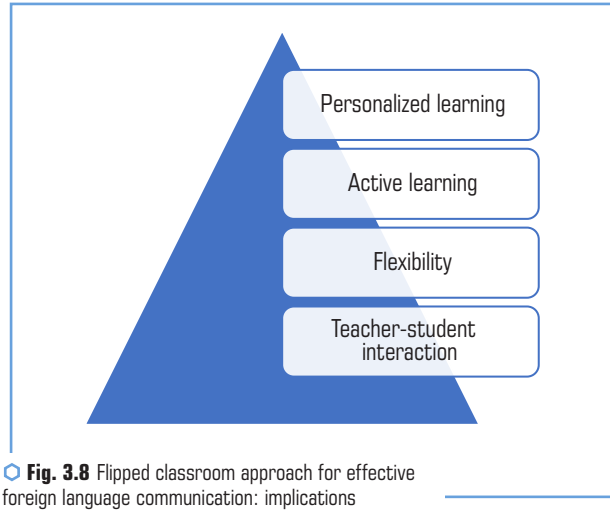

Fig. 3.8 Flipped classroom approach for effective foreign language communication: implications
Source: Authors' design

In conclusion, while the flipped classroom approach presents both the challenges and implications for teaching and learning, its potential benefits make it a valuable alternative to traditional teaching methods. Educators must be aware of these challenges and implications and develop strategies to overcome them to ensure that the approach is effective for all students.

Another proposed efficiency model for foreign language communication via multiculturalism is the "task-based" approach, which emphasizes the use of language in practical, real-world tasks (**Fig. 3.9**).

This model focuses on using language as a tool for communication, rather than simply studying vocabulary and grammar in isolation. Tasks can range from ordering food in a restaurant to negotiating a business deal, and learners are encouraged to use the language they already know in creative ways to complete these tasks.

The task-based approach in foreign language learning has gained considerable attention in both Ukrainian and European/American contexts. In general, the task-based approach emphasizes the

use of authentic, real-world tasks to promote language learning and development. The approach aims to create meaningful contexts for language learning and to facilitate the acquisition of communication skills in the target language.

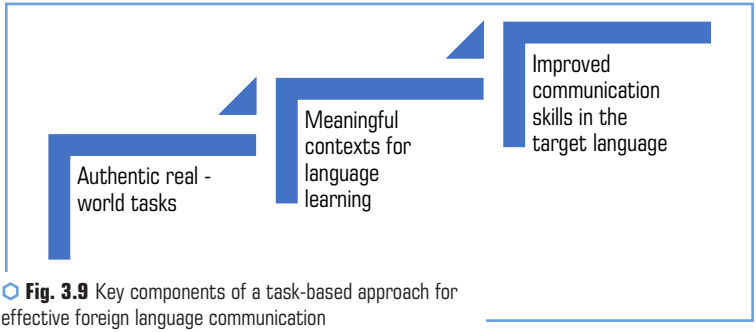

Fig. 3.9 Key components of a task-based approach for effective foreign language communication
Source: Authors' design

In Ukraine, the task-based approach has been the subject of numerous studies and discussions. Researchers have explored various aspects of the approach, including its effectiveness in promoting language learning, the types of tasks that are most appropriate for language learners, and the role of the teacher in implementing the approach. Some studies in Ukraine have also explored the relationship between the task-based approach and other teaching methods, such as the communicative approach and the traditional grammar-based approach following the international practice (e.g., Andrea Mason and Caroline Payant [29], Daniel O. Jackson [30], Olga Bratanych and Kira Vyshnevska [31]).

In contrast, European and American studies on the task-based approach tend to focus more on its effectiveness in promoting language learning among learners from diverse cultural and linguistic backgrounds. These studies often explore the role of task design in promoting intercultural communication and understanding, and the importance of cultural awareness and sensitivity in the task-based approach. Additionally, some studies have also explored the relationship between the task-based approach and other approaches to language learning, such as content-based instruction and project-based learning (e.g., David Nunan [32]).

In both Ukrainian and European/American contexts, the task-based approach has been explored in relation to multiculturalism. In Ukraine, researchers have explored the role of the task-based approach in promoting intercultural communication and understanding among learners from diverse cultural backgrounds. Some studies have also explored the challenges and opportunities of implementing the approach in a multicultural context (e.g., Oksana Chaika [18]). Similarly, European and American studies have explored the relationship between the task-based approach and multiculturalism, highlighting the importance of incorporating intercultural competence and sensitivity in task design and implementation (e.g., Regina Kaplan-Rakowski and Alice Gruber [10]).

Overall, while the task-based approach in foreign language learning has been explored extensively in both Ukrainian and European/American contexts, there are some differences in the focus and scope of the studies (**Fig. 3.10**).

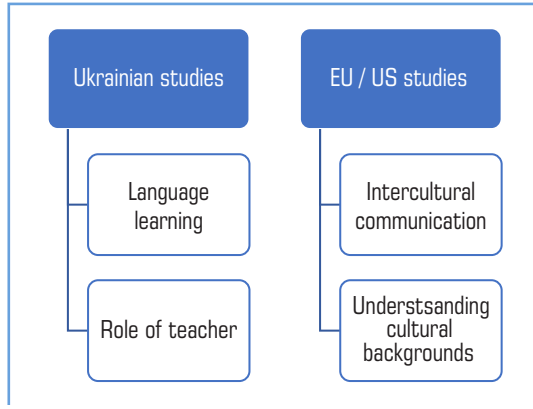

Fig. 3.10 Task-based approach: contrasting focuses
Source: Authors' design

Ukrainian studies tend to focus more on the effectiveness of the approach in promoting language learning and the role of the teacher in implementing the approach while European and American studies tend to explore the approach's effectiveness in promoting intercultural communication and understanding among learners from diverse cultural backgrounds.

However, there is a growing recognition of the importance of incorporating intercultural competence and sensitivity in task design and implementation in both contexts. From the perspectives of challenges and implications of the task-based approach, some studies may compare the beliefs of language teachers, e.g., in Japan, Malaysia, and Ukraine, regarding the use of the task-based approach in multicultural classrooms. One of the challenges identified was the difficulty of finding appropriate tasks that are both culturally relevant and linguistically challenging. The study also found that teachers in Ukraine were less likely to use a task-based approach due to the emphasis on grammar in the national curriculum. Two years later, Andrea Mason and Caroline Payant [29] follow and discuss the challenges and benefits of using a task-based approach to teaching speaking in rural Ukraine. One of the challenges identified was the lack of training and professional development opportunities for teachers on how to implement a task-based approach. The study also highlights the potential benefits of using tasks to promote learner autonomy and develop communicative competence. Next, another Ukrainian researchers, Olga Bratanych and Kira Vyshnevska [31], examined the implementation of a task-based approach in Ukrainian EFL classrooms and identified several challenges, including the lack of suitable materials and resources, the difficulty of designing

appropriate tasks, and the need for more teacher training and support. The author found that using a task-based approach helped to develop students' communicative competence and fostered a more student-centered and interactive learning environment.

As compared to the above, Peter Skehan [33] discussed the challenges and implications of using a task-based approach in language teaching more broadly. One of the challenges identified was the difficulty of designing tasks that are both cognitively challenging and linguistically appropriate for learners. Skehan highlights the potential benefits of using tasks to promote communication and foster a more student-centered and collaborative learning environment.

Despite the fact the research was conducted around a decade before Peter Skehan [33], Dave Willis and Jane Willis [34] addressed the issue from a more skills-based stance and provided practical guidance on how to implement a task-based approach in language teaching. It includes tips on task design and implementation, as well as examples of tasks and activities that can be used in the classroom. One of the challenges highlighted in the book is the need for teachers to have a deep understanding of their students' needs and abilities in order to design tasks that are appropriately challenging and engaging.

Overall, the task-based approach has the potential to promote communication, develop critical thinking and problem-solving skills, and foster a more student-centered and interactive learning environment (**Fig. 3.11**).

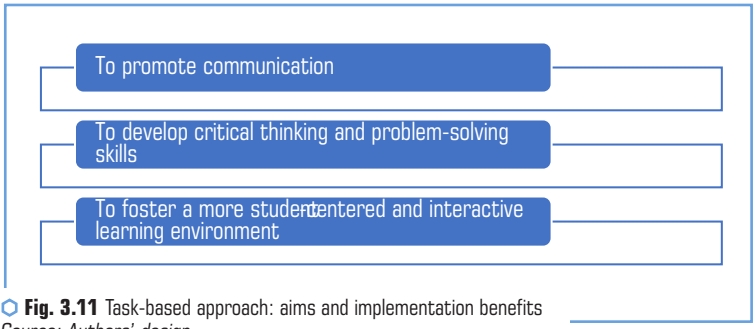

Fig. 3.11 Task-based approach: aims and implementation benefits
Source: Authors' design

At the same time, there are several challenges to implementing this approach, which cannot be ignored. These include the difficulty of designing appropriate tasks, the need for more teacher training and support, and the importance of considering cultural and linguistic diversity when designing tasks.

With due respect to the mentioned challenges that may be encountered in foreign language teaching and communication, it may be relevant to additionally consider some advantages of teaching foreign language communication via the task-based approach in a multicultural classroom. These advantages connect to the four below (**Fig. 3.12**):

1. *Promotes authentic communication:* the task-based approach emphasizes the use of authentic, real-life tasks to promote communication in the target language. This can be particularly effective in a multicultural classroom, where students may have different cultural backgrounds and perspectives. By engaging in tasks that are relevant to their lives and interests, students can develop their communication skills in a more natural and meaningful way.

2. *Encourages collaboration:* the task-based approach is typically designed to be a collaborative and interactive process, which can be especially effective in a multicultural classroom. By working together on tasks, students can learn from each other's perspectives and experiences, and develop a deeper understanding of different cultures and ways of thinking [35].

3. *Develops critical thinking skills:* the task-based approach often involves problem-solving and decision-making, which can help to develop students' critical thinking skills. In a multicultural classroom, this can be particularly valuable, as students may encounter different perspectives and ways of thinking that challenge their assumptions and encourage them to think more deeply about the issues at hand.

4. *Fosters learner autonomy:* the task-based approach encourages learners to take more responsibility for their own learning, by setting goals, selecting tasks, and reflecting on their own progress. In a multicultural classroom, this can be particularly valuable, as students may have different learning needs and preferences, and may benefit from a more individualized approach to learning [35].

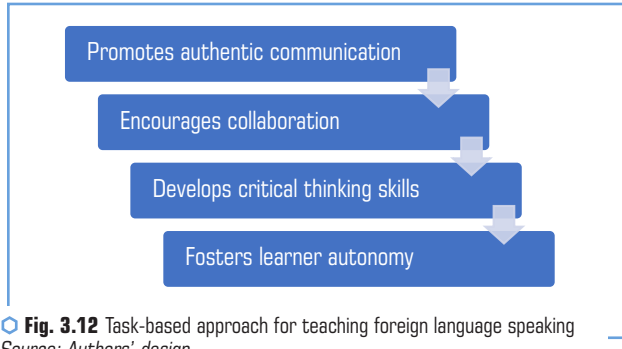

Fig. 3.12 Task-based approach for teaching foreign language speaking
Source: Authors' design

To sum it up, the task-based approach has the potential to be an effective way to teach foreign language communication in a multicultural classroom. By promoting authentic communication, collaboration, critical thinking, and learner autonomy, this approach can help students develop their language skills in a more meaningful and engaging way.

In the end, to bring more innovation into effective foreign language communication via multiculturalism, it is proposed to look at a third model, which links to the "immersion" approach. This efficiency model involves surrounding learners with the target language and culture in a way that

mimics natural language acquisition. This can be achieved through immersive language courses or study abroad programs, but it can also be facilitated through online resources, such as language exchange platforms and social media groups.

The immersion approach is a popular method for teaching foreign language communication in a multicultural classroom. It involves placing students in an environment where the target language is the primary means of communication, with the goal of promoting natural and spontaneous language learning. The immersion approach for effective foreign language communication and multiculturalism in lifelong learning has gained popularity through a number of reasons (**Fig. 3.13**):

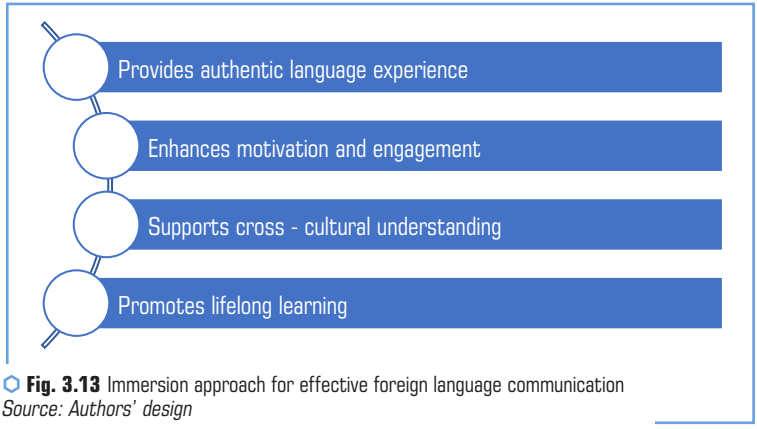

Fig. 3.13 Immersion approach for effective foreign language communication
Source: Authors' design

1. *Provides authentic language experience:* the immersion approach offers learners an opportunity to experience language in a real-world context, and to use the language to communicate and interact with others. This can be particularly effective in a multicultural classroom, where learners may have different cultural backgrounds and perspectives. By engaging with the language in a natural and authentic way, students can develop a deeper understanding of the target culture and gain a more intuitive grasp of the language [18].

2. *Enhances motivation and engagement:* the immersion approach can be a highly engaging and motivating way to learn a foreign language. By being immersed in the language and culture, learners are more likely to be invested in the learning process and to feel a sense of personal connection and ownership over their progress. In a multicultural classroom, this can be particularly valuable, as students may have different reasons for learning the language and may benefit from a more personalized approach [36].

3. *Supports cross-cultural understanding:* the immersion approach can also help to foster cross-cultural understanding and promote intercultural communication. By interacting with speakers of the target language in a natural and authentic way, learners can gain a deeper appreciation for the values, beliefs, and customs of the target culture. In a multicultural classroom, this can be

particularly valuable, as students may have different cultural backgrounds and perspectives that can enrich the learning experience [36].

4. *Promotes lifelong learning:* the immersion approach can be an effective way to promote lifelong learning and encourage learners to continue using and developing their language skills beyond the classroom. By providing a rich and authentic language experience, learners may be more likely to seek out opportunities for continued language use and practice, both within and outside of the classroom. In a multicultural classroom, this can be particularly valuable, as students may have access to a wider range of resources and opportunities for language use [18].

Overall, the immersion approach has the potential to be an effective way to teach foreign language communication and promote multiculturalism in lifelong learning. By providing authentic language experiences, enhancing motivation and engagement, supporting cross-cultural understanding, and promoting lifelong learning, this approach can help students develop their language skills in a more natural and intuitive way.

In addition to the described, it is necessary to note that the immersion approach has been implemented differently in Ukraine, the European Union (EU), and the United States (USA). It may be a good point to compare the studies on the immersion approach in different contexts and see to which extent they vary (**Fig. 3.14**).

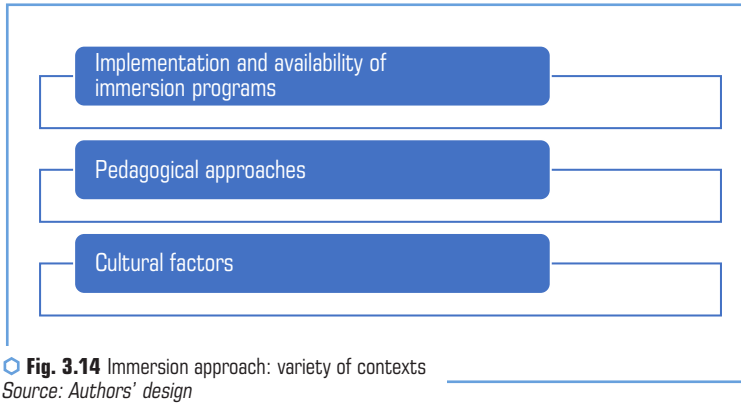

Fig. 3.14 Immersion approach: variety of contexts
Source: Authors' design

Thus, some studies focus on the following:

1. *Implementation and availability of immersion programs:* while the immersion approach is commonly used in the EU and the USA, it is relatively new in Ukraine [37]. In the EU and the USA, immersion programs are widely available, and students may have access to a range of immersion experiences, from short-term language courses to long-term study abroad programs [36]. In Ukraine, however, immersion programs are less common, and students may have fewer opportunities to engage with the language in an authentic way [37].

2. *Pedagogical approaches:* the implementation of the immersion approach can vary across different contexts and may be influenced by cultural and pedagogical factors. For example, in the world, the immersion approach is often used in conjunction with communicative language teaching, which emphasizes the development of communication skills through meaningful interaction [38]. In Europe, on the other hand, the immersion approach is often associated with the Content and Language Integrated Learning (CLIL) approach, which involves teaching subject matter through the medium of a foreign language [39]. In Ukraine, the implementation of the immersion approach may be influenced by a range of pedagogical approaches, including traditional grammar-translation methods and more communicative-based approaches [37].

3. *Cultural factors:* the immersion approach can also be influenced by cultural factors, including attitudes toward language learning and multilingualism. In the EU, for example, there is a strong emphasis on multilingualism and language learning, and immersion programs may be viewed as a valuable way to promote intercultural communication and understanding [36]. In the USA and Canada, however, the emphasis on language learning is often more utilitarian, with a focus on developing language skills for business and professional purposes [38]. In Ukraine, attitudes toward language learning and multilingualism may vary, depending on factors such as regional differences and historical context [37].

Finally, it is stressed that while the immersion approach is used in different ways in Ukraine, the EU, and the USA, it has the potential to be an effective way to teach foreign language communication and promote multiculturalism in lifelong learning. The implementation of the immersion approach may be influenced by a range of cultural and pedagogical factors, and students may have different opportunities for immersion experiences depending on the context in which they are learning.

Similar to the other efficiency models for foreign language communication as discussed above, the immersion approach is characterized by some challenges and implications according to the contrastive studies in Ukraine and the world (**Fig. 3.15**):

1. *Language proficiency:* while immersion programs can be effective for developing language proficiency, students who are not proficient in the language may struggle to understand and participate in the immersion environment [36]. In Ukraine, where English language proficiency is relatively low among the general population, this may pose a challenge for immersion programs [37].

2. *Cultural adjustment:* immersion programs can also pose challenges for students in terms of cultural adjustment. In addition to adapting to a new language environment, students may need to navigate cultural differences in areas such as social norms, communication styles, and values. In Ukraine, where there may be limited exposure to multicultural environments, students may struggle with cultural adjustment in immersion programs [7, 37].

3. *Teacher training:* in order for immersion programs to be effective, teachers need to be trained in the pedagogical approaches and methods used in immersion instruction [38]. In Ukraine, where the immersion approach is relatively new, there may be a lack of teacher training and professional development opportunities for teachers involved in immersion programs [37].

4. *Policy support:* immersion programs require support at the policy level in order to be effective. This includes funding for program development and resources, as well as policies and regulations that support immersion instruction [36]. In Ukraine, where the immersion approach is still emerging, there may be a lack of policy support for immersion programs [37].

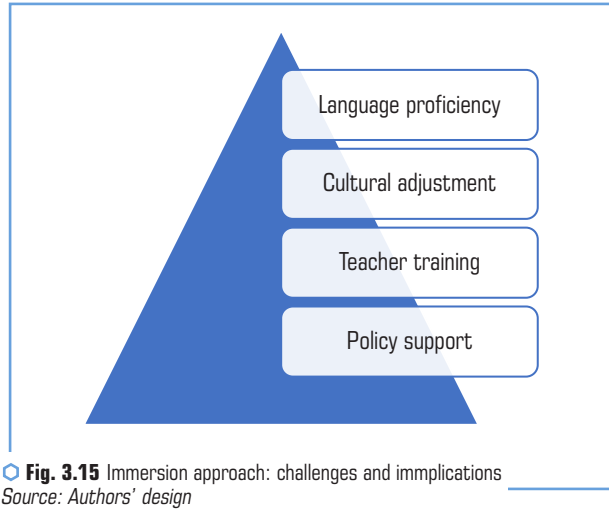

Fig. 3.15 Immersion approach: challenges and immplications
Source: Authors' design

At large, while the immersion approach has the potential to be effective for promoting effective communication and multiculturalism, there are challenges and implications that must be considered in its implementation. These challenges may vary depending on the context in which immersion programs are implemented.

As regards the potential benefits of the immersion approach for implementation in Ukraine, it aims to promote effective communication and multiculturalism, on the one hand; on the other, it focuses in detail on the following aspects (**Fig. 3.16**):

1. *Language proficiency:* immersion programs have been shown to be effective in developing language proficiency in a relatively short period of time, particularly for oral communication skills [38]. This can be especially beneficial in Ukraine, where English language proficiency is relatively low among the general population [37].

2. *Cultural understanding:* immersion programs provide students with opportunities to interact with people from different cultural backgrounds and gain a deeper understanding of different cultural norms, values, and communication styles. This can be beneficial in a multicultural country like Ukraine, where exposure to diverse cultures can help promote social harmony and understanding.

3. *Motivation:* immersion programs can be highly motivating for language learners, as they provide a real-world context for language use and allow learners to see the practical benefits of

language learning [36]. This can be particularly beneficial in Ukraine, where English language learning may be seen as a means of social and economic mobility.

4. *Cognitive development:* immersion programs have been shown to promote cognitive development, particularly in areas such as executive function and metalinguistic awareness [38]. This can be beneficial for students in Ukraine as it can help them develop the cognitive skills necessary for academic success.

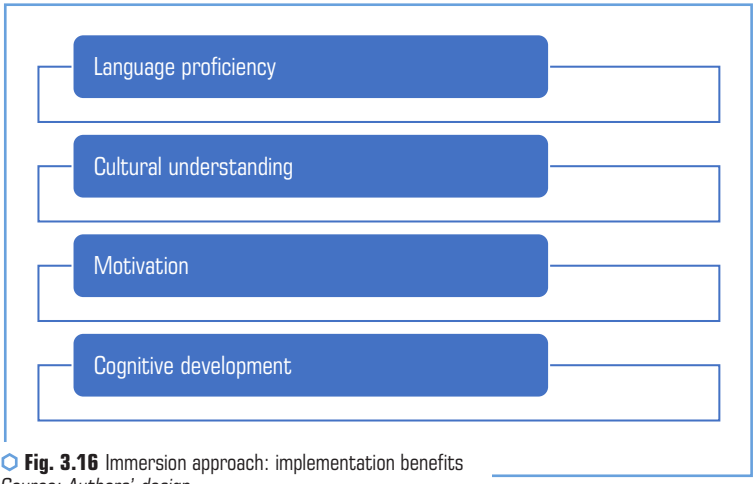

Fig. 3.16 Immersion approach: implementation benefits
Source: Authors' design

Overall, the immersion approach has the potential to be a highly effective way to promote effective communication and multiculturalism in Ukraine. By providing students with opportunities to develop language proficiency and cultural understanding in a real-world context, immersion programs can help prepare students for success in a globalized world.

Given the above, the proposed integrated efficiency model for foreign language communication to advance lifelong learning and multiculturalism may hardly be found modern and innovative unless coupled with technology.

Technology has always played a crucial role in promoting lifelong learning in foreign language communication. Online resources such as language-learning apps, interactive language courses, and virtual tutors have made language learning more accessible and flexible for learners. These tools also allow learners to track their progress and receive personalized feedback and instruction, further emphasizing the importance of taking a proactive role in one's language education.

With the increasing globalization and internationalization, learning a foreign language is becoming more and more important. The advent of technology has revolutionized the way we learn foreign languages. Technology has made learning more accessible, flexible, and engaging for learners,

promoting lifelong learning. Therefore, the integration of technology in foreign language communication has several advantages for lifelong learners. Firstly, technology has made language learning more accessible, breaking down barriers to entry for learners who may not have access to traditional educational institutions. Secondly, technology has made language learning more flexible, allowing learners to learn at their own pace and on their own schedule. Thirdly, technology has made language learning more engaging, incorporating interactive and multimedia elements that capture learners' attention and increase motivation [40].

All the enlisted becomes possible with several technology-enabled language learning tools that learners can use to enhance their foreign language communication skills (**Fig. 3.17**).

These tools include:

1. *Language learning apps* such as Duolingo, Babbel, and Memrise that offer gamification techniques, bite-sized lessons, and interactive exercises that promote engagement and motivation [41].

2. *Online language exchange platforms* such as iTalki and Tandem that offer a platform for learners to connect with native speakers for language exchange and conversation practice [42].

3. *Language learning podcasts and videos* such as Coffee Break Spanish and Easy German that offer audio and video lessons that learners can listen to and watch on the go [40].

4. *Virtual reality (VR) and augmented reality (AR) language learning platforms* that offer immersive and interactive experiences that simulate real-world situations and contexts [43].

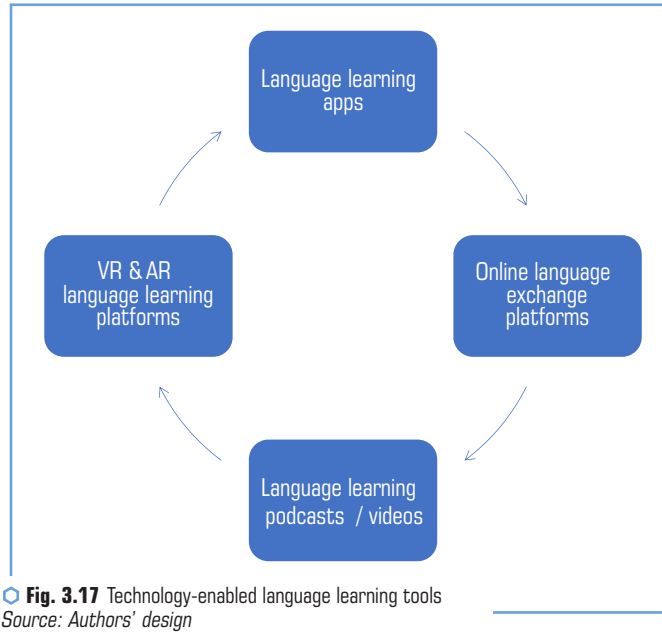

Fig. 3.17 Technology-enabled language learning tools
Source: Authors' design

However, it should be followed and noted that implementation of such an innovative integrated approach to building up efficiency models for foreign language communication may hardly go seamlessly. Despite the benefits of technology in promoting lifelong learning in foreign language communication, there are several challenges that learners may face (**Fig. 3.18**).

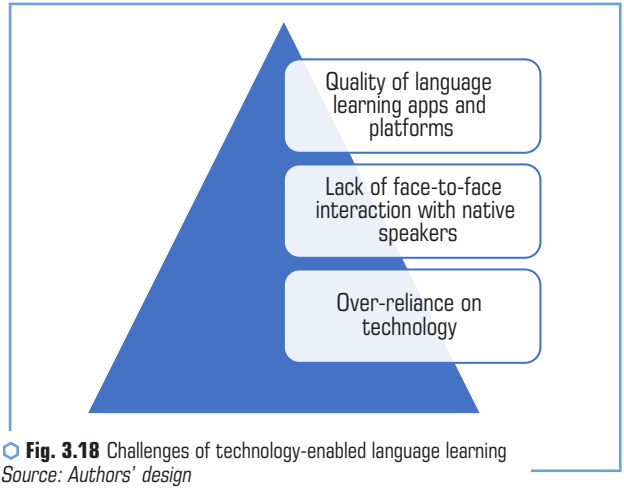

Fig. 3.18 Challenges of technology-enabled language learning
Source: Authors' design

Firstly, the quality of language learning apps and platforms can vary, with some offering subpar content and experiences. Secondly, the lack of face-to-face interaction with native speakers can limit learners' opportunities to practice their speaking and listening skills in real-world situations [42]. Finally, the over-reliance on technology can lead to learners becoming disengaged and unmotivated, especially if they feel overwhelmed or frustrated by the learning experience [40].

That leads to the fact that technology has revolutionized the way we learn foreign languages and has promoted lifelong learning. There are several technology-enabled language learning tools that learners can use to enhance their foreign language communication skills. However, there are also challenges that learners may face, such as the quality of language learning apps and platforms and the lack of face-to-face interaction with native speakers. Educators and learners must be aware of these challenges and find ways to overcome them to maximize the benefits of technology-enabled language learning.

CONCLUSIONS

The study results reveal and emphasize that innovative efficiency models that integrate technology in foreign language communication and multiculturalism can significantly enhance lifelong

learning. Technology has made language learning more accessible, personalized, and interactive, allowing learners to communicate with native speakers, explore different cultures, and improve their language skills.

The use of virtual and augmented reality technologies has opened up new possibilities for immersive language learning experiences that simulate real-life scenarios. These technologies can help learners develop their language skills in a natural and engaging way, providing them with the opportunity to practice their speaking and listening skills in a safe and supportive environment.

Furthermore, innovative efficiency models that promote multiculturalism can also help learners develop a deeper understanding of other cultures and perspectives, fostering empathy and respect for diversity. Through inquiry-based learning, learners can explore and analyze different cultures, customs, and beliefs, developing their critical thinking and intercultural communication skills.

In summary, the integration of innovative efficiency models that leverage technology and promote multiculturalism can significantly enhance lifelong learning in foreign language communication. Educators need to be proactive in adopting these models and adapting their teaching strategies to meet the changing needs of learners in the 21st century.

This research has investigated the potential of innovative efficiency models that integrate technology in foreign language communication and promote multiculturalism to enhance lifelong learning. Specifically, it explored the effectiveness of flipped classroom, task-based learning, communicative language teaching, and immersion approaches in developing the cognitive and affective domains of language learning.

The findings present several case studies of innovative efficiency models that leverage these approaches, including examples of virtual and augmented reality technologies, language exchange programs, and inquiry-based learning projects. These models provide learners with authentic and immersive language learning experiences, enabling them to develop critical thinking, problem-solving, and intercultural communication skills.

Moreover, the study has examined the cognitive and affective benefits of these innovative efficiency models, including improved motivation, self-efficacy, and metacognition. It was discussed how the potential of these models could promote multiculturalism and foster empathy and respect for diversity.

Finally, it was considered which challenges might be faced with adopting these innovative efficiency models, including the need for digital literacy skills, teacher training, and appropriate assessment methods. The study concludes by highlighting the implications of these models for lifelong learning and the importance of adopting a learner-centered approach in foreign language education.

In the end, to further improve these innovative efficiency models and to share the insights as to what might be recommended for effective foreign language communication, the results may lead to consider the following:

1. *Incorporating authentic materials:* educators should consider incorporating authentic materials, such as news articles, videos, and podcasts, to make the language learning experience more engaging and relevant to learners.

2. *Providing personalized feedback:* providing personalized feedback to learners can help them develop their language skills more effectively. Technology can play a significant role in providing personalized feedback through automated language assessment tools, which can provide immediate feedback on grammar, pronunciation, and vocabulary.

3. *Integrating cultural content:* educators should integrate cultural content into language learning materials to promote intercultural understanding and respect. This can include learning about different customs, traditions, and values, and exploring various perspectives on cultural issues.

4. *Leveraging technology:* innovative efficiency models can be further improved by leveraging emerging technologies, such as artificial intelligence, chatbots, and gamification, to create more engaging and effective language learning experiences.

5. *Encouraging collaboration:* collaboration can enhance the language learning experience by providing learners with the opportunity to practice their language skills in authentic communicative situations. Innovative efficiency models that incorporate collaborative activities, such as language exchange programs and online discussion forums, can promote intercultural communication and foster a sense of community among learners.

Overall, it is believed that this research provides valuable insights into the potential of innovative efficiency models to enhance foreign language communication, promote lifelong learning, and foster intercultural understanding. By incorporating the above suggestions, educators can further improve these models and create more effective and engaging language learning experiences for their learners.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest in relation to this research, whether financial, personal, authorship or otherwise, that could affect the research and its results presented in this paper.

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DOI: 10.15587/978-617-7319-70-1.CH4

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CHAPTER 4

MANAGING THE PROFESSIONAL DEVELOPMENT OF ACADEMIC STAFF IN UKRAINIAN UNIVERSITIES UNDER THE CONDITIONS OF EXPANDING INSTITUTIONAL AUTONOMY

ABSTRACT

The integration of the higher education system of Ukraine into the European educational area contributes to the expansion of the institutional autonomy of universities in matters of academic staff development.

In the conditions of institutional autonomy expansion, the dependence of ensuring the academic staff's development on the institutional policy and resources of the university is increasing.

The methods of scientific sources analysis, pedagogical observation, questionnaires, and mathematical methods of processing survey results using Excel software are used in the research.

The current state, conditions, trends, and directions of developing the Ukrainian universities' academic staff in the conditions of the institutional autonomy expansion are revealed.

Universities' autonomy creates conditions for organizational and methodical, material and technical and financial support for the academic staff development. Withal, one third of the academic staff of Ukrainian universities does not realize the importance of university autonomy in their professional development. The consequence is their unwillingness to actively participate in the processes of implementing institutional autonomy.

KEYWORDS

Academic staff, development, institutional autonomy, personnel policy, university.

Integration of the higher education system of Ukraine into the European educational area opens up great opportunities for expanding the institutional autonomy of its universities. The process is regulated by a number of European educational documents such as European Commission "EUROPE 2020. A strategy for smart, sustainable and inclusive growth" [1] and "Supporting growth and jobs – An agenda for the modernization of Europe's higher education systems" [2], Bucharest Communiqué "Making the Most of Our Potential: Consolidating the European Higher

Education Area" [3], Yerevan Communiqué [4], European Association for Quality Assurance in Higher Education (ENQA) "Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)" [5], Report "Modernisation of Higher Education in Europe: Academic Staff" [6], Rome Ministerial Communiqué [7], "European strategy for universities" [8], among which the Report of the European Association of Universities (EUA) "University Autonomy in Europe I" [9], which contains the definition of university autonomy as the right and capacity of universities to self-govern and defines four components of the autonomy: organizational, financial, personnel and academic.

In Ukrainian educational legislation, the right to university autonomy is enshrined in Article 1 of the Law of Ukraine "On Education" [10]. It lies in the autonomy, independence and responsibility of subjects of educational activity in making decisions regarding academic (educational), organizational, financial, personnel and other issues of activity, which are carried out in the order and within the limits defined by this Law. Taking into consideration that each of these four issues is implemented by managerial, academic, support and other university staff, personnel autonomy can be considered as the basic component of university autonomy. It concerns the procedures of personnel provision of universities, the provision of academic freedom to the subjects of the educational process, as well as the issue of professional development of scientific, pedagogical, scientific and pedagogical workers on the basis of combining their initiative, autonomy, independence and responsibility in this process.

Analysis of the scientific sources devoted to the issue of professional development of university academic staff proved that it is in the centre of attention of a wide range of researchers in the field of educational/pedagogical sciences.

In the context of our research, the consideration by scientists [11] academic staff professional development as one of the indicators of institutional autonomy of higher education institutions is relevant. At the same time, the researchers pay special attention to the issues of evaluating the fairness of hiring teachers, renewal of tenure/contract, career growth [12]; determining the role of the department in the process of hiring teachers and creating optimal conditions for supporting the diversity of the teaching team [13]; modelling the process of professional growth of staff in public institutions of higher education based on connection between economic resources for the promotion of teachers and the desired academic staff composition [14].

The publications of modern researchers **represent** the experience and best practices of foreign countries regarding the appointment of university professors, in particular, in universities of applied sciences in Germany [15]; methods of improving the activity of academic staff, in particular research [16]; models of assessment [17] and competence [18] of researchers; criteria for selecting academic staff [19], in particular researchers in Croatia [20].

They **define** the concept of "teachers' academic development" [21–23]; the professional roles of university teachers and the peculiarities of their professional behavior [24].

They **justify** the need to raise the professional level of managers of all services of higher education institutions in connection with transformations aimed at increasing the efficiency

of their activities [25]; the impact of university research evaluation on the remuneration of academic staff [26], etc.

The scientists revealed the phenomenon of creative transformational leadership on the basis of electronic questionnaires of 28 respondents from 15 countries (the sample consisted of rectors, vice-rectors, deans, heads of departments and heads of master's and bachelor's programs) and found out that leadership in higher education necessarily includes creativity, and leaders should promote the development of creativity in subordinates. The role of cooperation between university teachers and students as future professionals is outlined based on the results of a survey of students at universities in Serbia [27]. The issues of evaluating the productivity of scientific work of academic staff are analyzed on the example of Great Britain [28]. The possibilities and values of mentoring at different stages of the career of academic staff in institutions of higher education of the United Kingdom are substantiated [29]. The experience of professional development of higher school teachers based on the principles of Education for Sustainable Development (ESD) within the framework of the Tempus international project was presented [30].

Among the new publications, the article, which describes discrepancies between the declared and actual importance of various competencies of university academic staff drew our attention [31].

The Ukrainian scientists [32–35] also consider the development of university academic staff in the context of institutional autonomy and the leadership potential growth of these educational institutions, which focuses on the ability to make effective decisions regarding the recruitment and management of personnel, the implementation of an institutional system of remuneration, encouragement and motivation of personnel, etc. They emphasize that the development of academic staff is not an end in itself, but a factor of expanding the university's institutional autonomy and strengthening the social function of higher education in the society.

In the works of the researchers, some aspects of university academic staff development are also revealed, in particular:

– designing models, principles and technologies of forming the university personnel strategy [36];

– formation of the personnel professional career in institutions of higher education;

– collective agreement regulation of social and labor relations in universities as autonomous institutions [37, 38];

– organizational autonomy in Ukrainian institutions of higher education [39];

– technologies of professional development of scientific and pedagogical workers and increasing their potential [40].

At the same time, despite sufficient theoretical development of the problem of academic staff development, the state of ensuring the course of this process in Ukrainian universities remains insufficiently researched. Meanwhile, carrying out a purposeful study of it will reveal trends and prospects for the development of academic staff and develop breakthrough strategies and programs for its development in the context of expanding the institutional autonomy of universities. This indicates the relevance of the selected research problem.

The aim of this Chapter is to identify the current state of ensuring the development of the academic staff in Ukrainian universities and to develop recommendations for improving this process in the context of expanding institutional autonomy.

To achieve this aim, the analysis of scientific literature, domestic and international legislative acts and normative legal documents in the field of education was carried out, which emphasize the importance of academic staff professional development in universities and formulate the basic provisions for its implementation.

One of the research methods was the survey of academic staff. It was chosen as the most popular quantitative method, which allows adequate transferring the results of the sample study to the entire general totality.

Sample/participants:

209 academic staff workers from 38 universities of Ukraine participated in the study (11 – pedagogical; 5 – humanitarian; 6 – classical; 5 – technical, 2 – economic, 2 – environmental; 1 – legal; 2 – institutions of postgraduate education, 2 – private higher education institutions; 2 – bodies of state administration and fiscal service of Ukraine), which represented 13 out of 25 regions of Ukraine. These institutions included leading university centers such as Kyiv, Kharkiv, Odesa, Chernivtsi, and Dnipro.

Out of the 209 studied academic workers, 158 people (75.6 %) had a scientific degree, in particular, 33 people (15.8 %) had a doctor of science degree, 125 people (59.8 %) had a candidate of science degree, and 51 people (24.4 %) did not have a scientific degree.

Respondents participating in the survey were informed of the possibility of refusing to answer the questions or withdrawing from the survey process without any consequences for their status.

The research was carried out by the scientific workers of the Department of Integration of Higher Education and Science of the Institute of Higher Education of the National Academy of Sciences of Ukraine during 2020–2021. It covered 2 stages:

– theoretical (2020), which involved the analysis of scientific sources on the problem of professional development of university academic staff;

– analytical (2021), the main content of which was the analysis and generalization of the modern practice of professional development of the academic staff in Ukrainian universities.

In order to obtain empirical data on the professional development of academic staff in Ukrainian universities, at the second stage of the research, a questionnaire was developed in Google Forms (https://forms.gle/K6ukUUomhpVx4icL6), which consisted of general information about the respondents and the main part, which contained 15 closed questions and 78 options for answers to them. The content of the questionnaire is structured according to four blocks, which related to the following areas of professional development of the academic staff of Ukrainian universities: attitude to various aspects of personnel autonomy of universities; forms of professional development of academic staff implemented in universities; forms and types of assessment of academic staff activity; parameters of professional development, which are taken into account in universities when evaluating the professional achievements of the academic staff.

The analysis of the survey results involved statistical processing of the collected data using the Excel software and was confirmed statistically using the α-Cronbach's reliability coefficient.

Based on the respondents' answers to the 1st block of the survey questions, it was found out how much institutional autonomy contributes to the development of the academic staff of Ukrainian universities.

First, the attitude of the respondents to the autonomy of the university was studied out (**Fig. 4.1**).

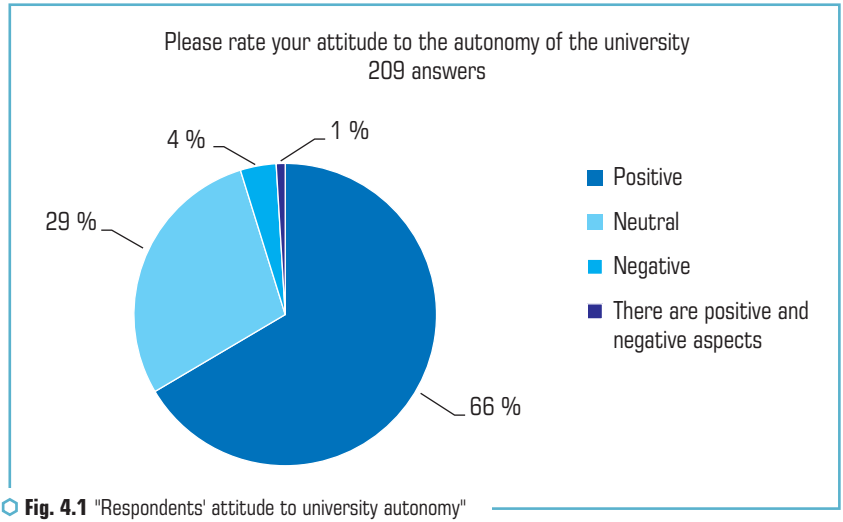

Fig. 4.1 "Respondents' attitude to university autonomy"

The fact that one third (60 – 28.7 %) of respondents do not support the autonomy of universities may indicate their insufficient awareness of the advantages and possibilities of autonomy for the individual, the university, and society in general.

Answers to Question 2 *"Do you agree with the opinion that the university should independently determine the amount of salaries for academic staff?"* are illustrated by **Fig. 4.2**.

As one can see, one third (70 – 33.5 %) of respondents answered "Yes", one third (75 – 35.9 %) – "No", and a small proportion (6 – 2.9 %) of respondents gave other answers. Among them, there was a proposal to create unified general basic requirements at the level of the Ministry of Education and Science of Ukraine for the university to adjust. A significant total percentage of "No" and "Difficult to say" answers proves that academic workers are not confident in the transparency, impartiality and objectivity of independent salary determination by universities.

Answers to Question 3 *"Do you think that the university should independently establish requirements for applicants for the positions of academic workers?"* (**Fig. 4.3**) turned out to be close in value to the answers to the previous question.

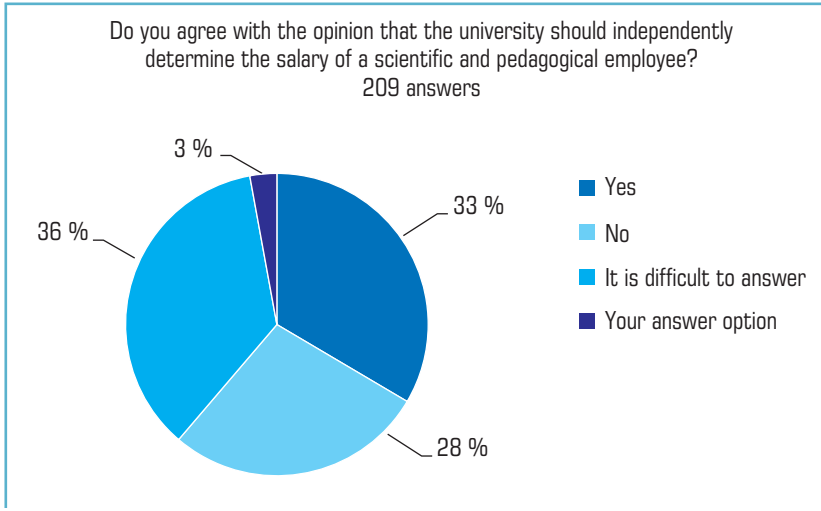

Fig. 4.2 Answers to Question 2 "Do you agree with the opinion that the university should independently determine the amount of salaries for academic staff?"

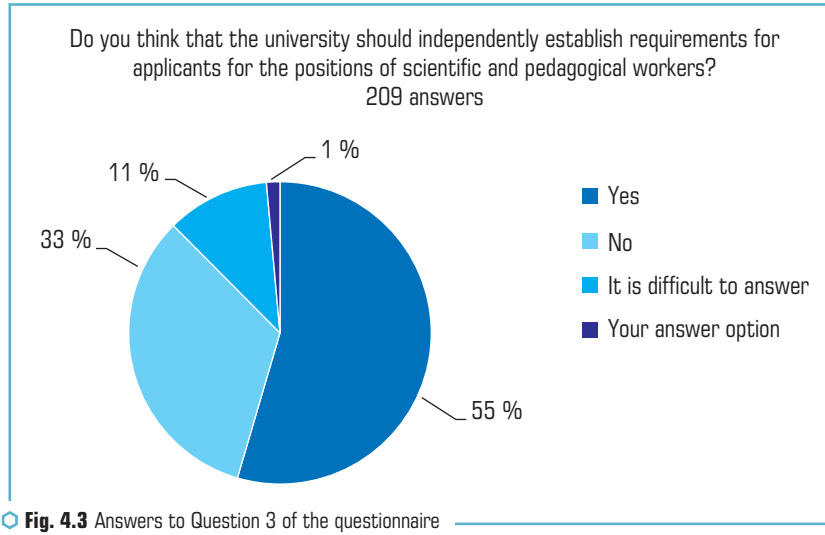

Fig. 4.3 Answers to Question 3 of the questionnaire

As we can see, more than half (114 – 54.5 %) of respondents answered "Yes", one third (69 – 33.0 %) – "No", and a small proportion (3 – 1.4 %) of respondents gave other answers.

Judging by the answers received to Question 4 of the survey "*Do you think that professors and/or doctors of science should have an open-ended contract when they are hired?*" (**Fig. 4.4**), more than half (129 – 61.7 %) of respondents do not perceive an open-ended contract as an effective factor in ensuring the development of academic staff.

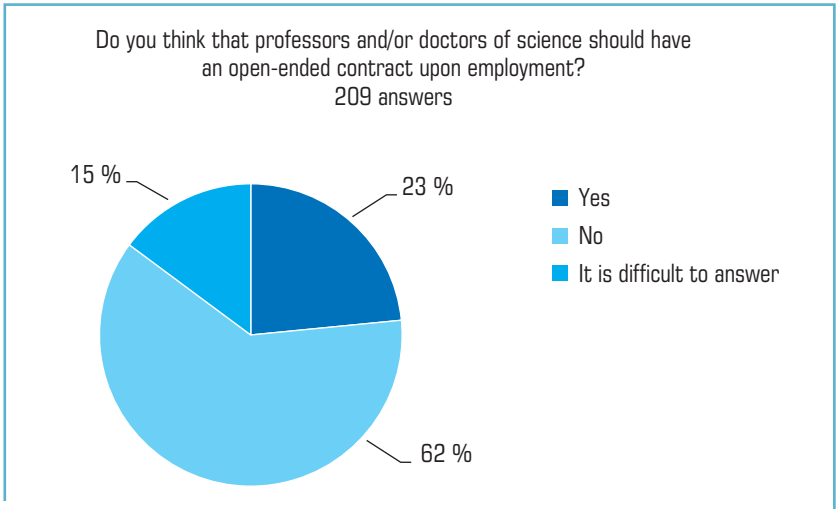

Fig. 4.4 Answers to Question 4 of the questionnaire

Question 5 "*Do you support setting standards for the number of students per teaching post?*" (**Fig. 4.5**) caused an unexpected reaction from the respondents. Only one third (66 – 31.6 %) of them answered "Yes", while half (106 – 50.7 %) answered "No".

Summarizing the respondents' answers to the questions of the first block of the questionnaire proves that the overwhelming majority of academic staff supports university autonomy and has a positive attitude towards the university's personnel autonomy in terms of setting requirements for applicants for positions. At the same time, respondents are very cautious about the university's independent determination of the amount of salary for academic staff and are negatively disposed to concluding open-ended contracts with doctors/professors when hiring and towards setting standards for the number of students per teaching post.

The second block of the questionnaire concerned the determination of the impact of professional development on the quality of the professional activity of academic staff of universities and the conditions created for this in the institution of higher education.

Answers to Question 6 "*Does professional development affect the improvement of your job duties?*" (**Fig. 4.6**) testified that the vast majority (124 – 59.3 %) of the academic staff highly

appreciate this influence. One third (69 – 33 %) of the respondents chose the answer "Rather yes". Only (16 – 7.6 %) respondents answered this question negatively.

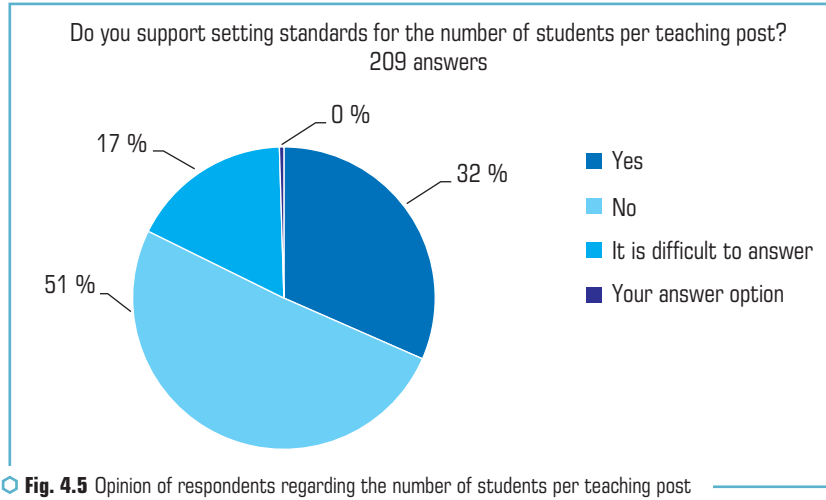

Fig. 4.5 Opinion of respondents regarding the number of students per teaching post

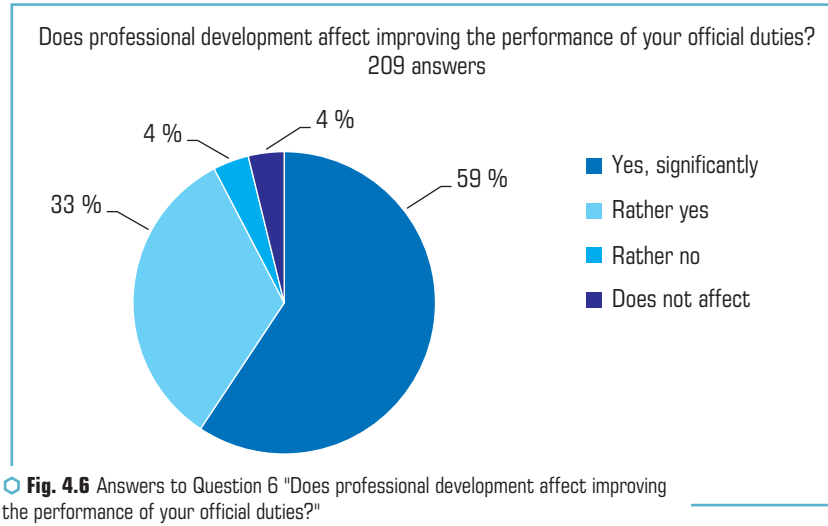

Fig. 4.6 Answers to Question 6 "Does professional development affect improving the performance of your official duties?"

During the survey, it was found out what conditions have been created in universities for the professional development of academic staff – Question 7 (**Fig. 4.7**). It turned out that exchange

of experience with colleagues (167 – 79.9 %), organization of distance courses for academic staff (124 – 59.3 %), participation in international projects (122 – 58.3 %), distribution of informational and methodical materials (115 – 55 %), conducting professional development trainings (79 – 37.7 %) are leading. Only a small share (3 – 1.4 %) of respondents noted that the university does not create any conditions for their professional development. The reply (1 – 0.5 %) of respondents, who believe that it is not the right time for the academic staff to develop because the performance of the workload takes all their working and free time and exhausts them is considered to be worrying.

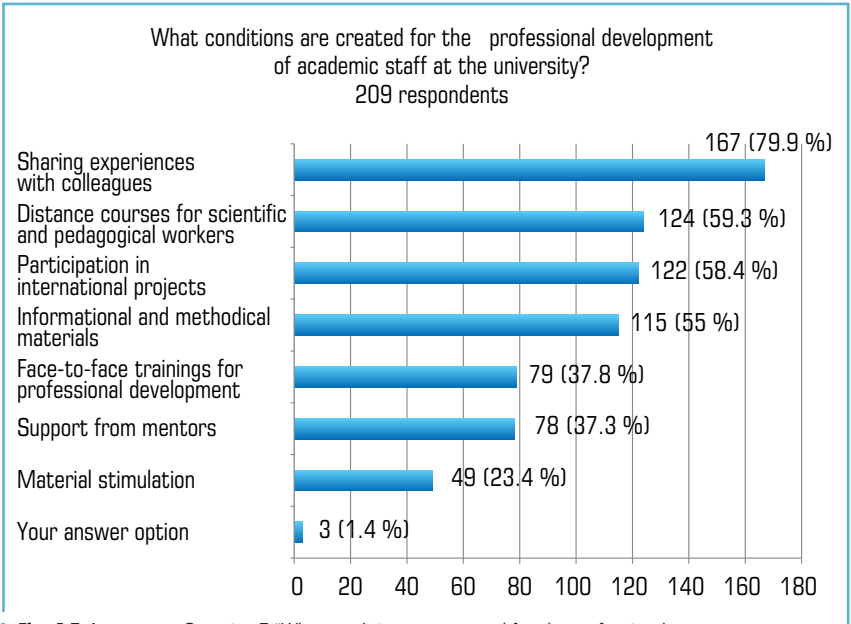

Fig. 4.7 Answers to Question 7 "What conditions are created for the professional development of academic staff at the university?"

In ensuring the development of universities' academic staff, in addition to the conditions, the forms of its implementation are equally important (Question 8 – **Fig. 4.8**). The vast majority of respondents named advanced training courses at other higher education institutions (158 – 75.6 %) and internal advanced training courses (129 – 61.7 %) as the main ones. The next most common are scientific internships in Ukraine (99 – 47.4 %) and abroad (81 – 38.8 %), as well as exchanges of visiting professors between foreign institutions (54 – 25.8 %) and academic exchanges (52 – 24.9 %). At the same time, a small share (3 – 2.4 %) of respondents stated that their universities do not practice any forms of professional development or they all do it at their own expense.

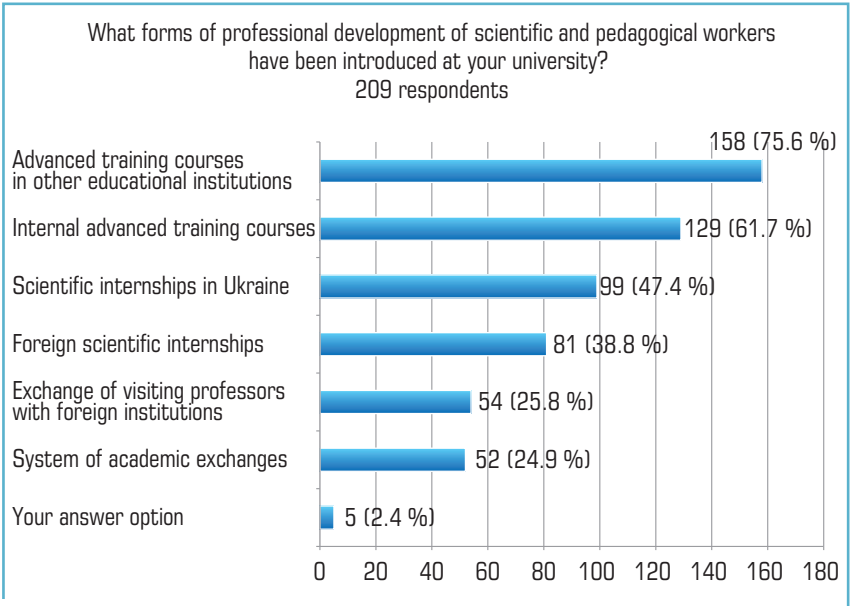

Fig. 4.8 Forms of academic staff professional development provided by universities

Answers to Question 9 "*What personal achievements of a scientific and pedagogical worker are conditions for advancing up the ladder of an academic career?*" (**Fig. 4.9**) made it possible to find out that in the universities of Ukraine the greatest influence on the career growth of teaching staff is the defense of the dissertation (184 – 88 %), the publication of articles in foreign publications indexed in the Scopus and Web of Science databases (140 – 67 %), participation in international projects (119 – 56.9 %), obtaining a certificate of professional development (101 – 48.3 %) and participation in international academic mobility (71 – 34 %). Unfortunately, the scientific and methodical level and professional skills of teachers, their use of integrative teaching methods, graduation from postgraduate studies were not a priority, and a small percentage (9 – 4.3 %) believe that personal relationships with management have a greater influence on career growth than personal achievement.

Summarizing the answers of the respondents to the second block of questions of the survey allows coming to the conclusion that they consider professional development to be an influential factor in the personnel autonomy of the university and generally positively evaluate the conditions and forms of its implementation in the universities of Ukraine, noting the priorities and shortcomings in their implementation, as well as the possibilities of influencing the results of professional development on the career growth of academic staff. At the same time, a small number of respondents do not see the point in professional development due to the bias of personnel evaluation criteria and

local corruption in personnel matters, as a result of which the administration is not forming a team of professionals, but their own support group.

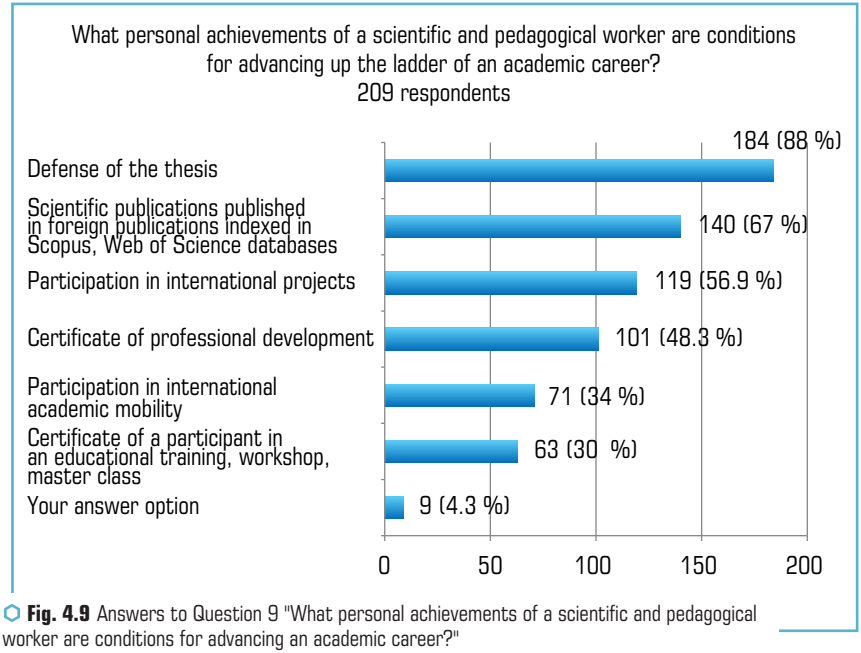

Fig. 4.9 Answers to Question 9 "What personal achievements of a scientific and pedagogical worker are conditions for advancing an academic career?"

The third block of the survey questions related to the procedure for evaluating the university academic staff. According to the results of the answers to Question 10 of the survey (**Fig. 4.10**), the most common (179 – 85.6 %) type of evaluation of the academic staff of universities is the individual rating of the activity of the academic worker, in second place (121 – 57.9 %) – assessment of teaching quality by students. Much less (32 – 15.3 %) of the answers concerned the holding of the competition for the title "Best teacher/researcher of the university". An insignificant share (7 – 3.3 %) of respondents indicated their answer option. These were the quality and number of scientific publications, the amount of funds earned by the scientific and pedagogical worker for the university, the results of certification, compliance of the scientific and pedagogical worker's activity indicators with the requirements of the table of licensing requirements, the personal opinion of the management. This is specified in **Fig. 4.10**.

At the same time, estimating the role of rating in the internal quality assurance of higher education (Question 11) – **Fig. 4.11**, a considerable percentage of respondents (86 – 41.1 %) assessed it as insignificant, one fifth (43 – 20.6 %) – indifferent, and one tenth (27 – 12.9 %) – negative.

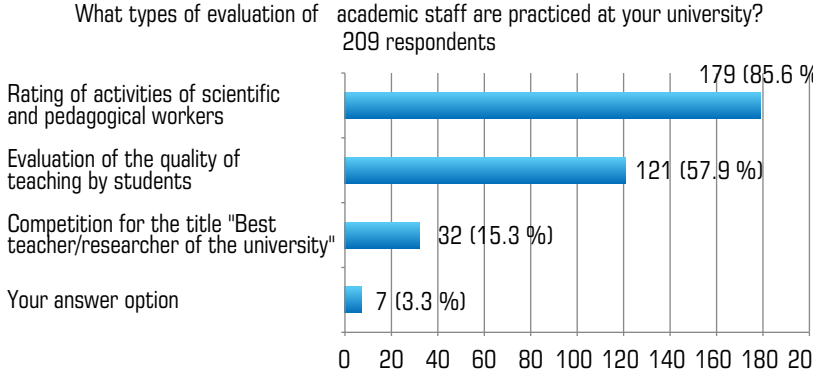

Fig. 4.10 Answers to the Question of the survey "What types of evaluation of academic staff are practiced at your university?"

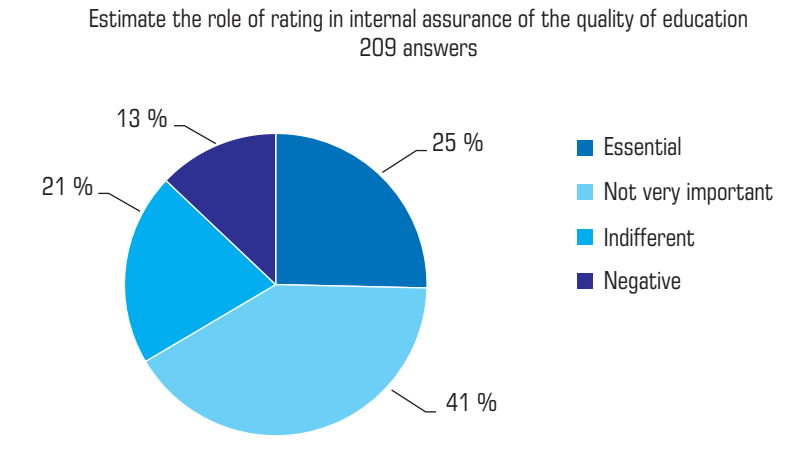

Fig. 4.11 Answers to Question 11 "Estimate the role of rating in internal assurance of the quality of education"

The results of the survey regarding the objectivity of student evaluation of teaching, shown in **Fig. 4.12** appeared to be more positive.

The processing of respondents' answers to the questions of the third block of the survey gives reason to claim that although the rating is one of the most effective forms of evaluating the activity of university academic staff, it is generally perceived indifferently by its representatives.

Only a little more than one third of the respondents attach significant importance to it. At the same time, teachers rely more on the objectivity of their students' evaluations. At the same time, according to the answers provided by the respondents, among the forms of evaluation of academic staff's activity, student evaluation gained only 11 % of the total number.

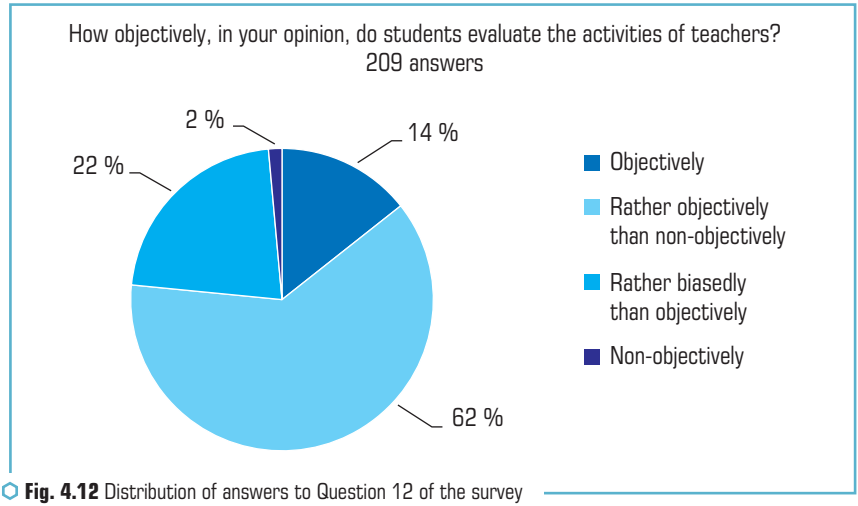

Fig. 4.12 Distribution of answers to Question 12 of the survey

The fourth block of the survey questions was aimed at defining the specifics of the professional development of researchers in Ukrainian universities in the context of the expansion of institutional autonomy. It was important to find out how important this factor is for the scientific staff among/within other factors of ensuring the quality of scientific research in higher education institutions (Question 13 – **Fig. 4.13**).

According to the answers of the respondents, the professional development of researchers is not considered by them to be the most important factor in ensuring the quality of scientific research at the university, instead, they named sufficient funding (171 – 81.8 %), material encouragement of researchers (142 – 67.9 %) and powerful scientific infrastructure (134 – 64.1 %). The next important factors are the effective management of research activities (111 – 53.1 %) and the demand for the results of scientific research (91 – 43.5 %). Only a quarter (60 – 28.7 %) of the respondents believed that the quality of scientific research is influenced by the presence of international level researchers at the university.

Question 14 "*Name the most effective forms of organization of professional development of researchers for you personally*" (**Fig. 4.14**) echoed in a certain way with Question 8 of the questionnaire and related to personally significant forms of professional development of academic staff.

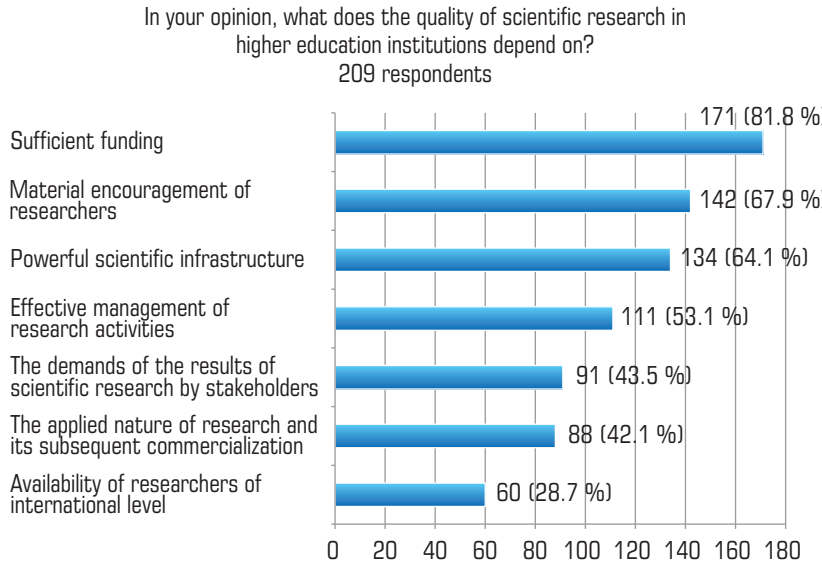

Fig. 4.13 Distribution of answers to Question 13 of the survey "In your opinion, what does the quality of scientific research in higher education institutions depend on?"

Fig. 4.14 Distribution of answers to Question 14 of the survey "Name the most effective forms of organizing the professional development of researchers for you personally"

The most popular forms of professional development of researchers were self-education (142 – 67.9 %), participation in international projects (139 – 66.5 %) and scientific internship (132 – 63.2 %). Advanced training gained slightly fewer supporters (107 – 51.2 %). Only a third (68 – 32.5 %) of the interviewees attributed non-formal education to the forms of organization of professional development of researchers.

The last, 15th question of the survey also concerned the personal significance of the forms of organization of professional development (**Fig. 4.15**).

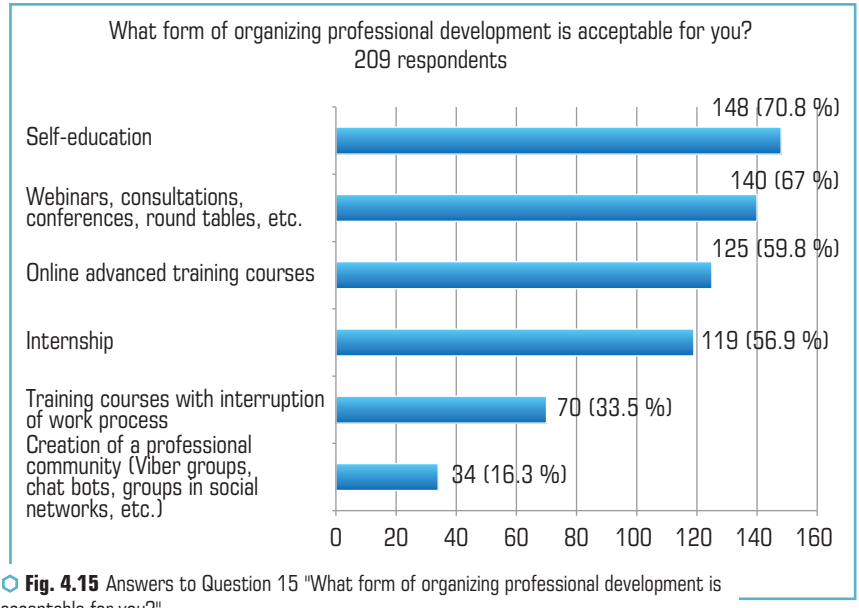

Fig. 4.15 Answers to Question 15 "What form of organizing professional development is acceptable for you?"

As one can see, respondents found online forms more effective for researchers than offline forms. Thus, more than half (125 – 59.8 %) of the respondents chose online training courses, whereas 70 (33.5 %) preferred training courses without interruption of work process. A common form of professional development of researchers is a scientific internship (119 – 56.9 %), and the creation of professional online communities is a new and insufficiently developed form of professional development.

Therefore, the organization of professional development of university researchers has common and distinctive features with the organization of this process for academic staff. The commonality lies in the similarity of the lists of organizational forms of professional development. The difference is in their priority: for scientific and pedagogical workers, these are advanced training courses (75.6 % in other higher education institutions, internal courses – 61.7 %), and for

researchers, this is self-education (70.8 %) and mass scientific events (67 %). Internship is the next most important form of professional development for both teaching (47.4 % and 38.8 %) and research (56.9 %) academic staff of universities. Researchers seek to join professional online communities (16.3 %), while no similar responses were given by teachers.

The value of the α-Cronbach's reliability coefficient is higher than the lower limit of permissible values of 0.7, which proves the reliability of the questionnaire and indicates the acceptability of the obtained results.

Calculation of the α-Cronbach's reliability coefficient based on the results of the survey of scientific and pedagogical workers regarding the development of the academic staff of Ukrainian universities in the conditions of expanding institutional autonomy (**Table 4.1**) confirmed the reliability of the results obtained and the conclusions drawn on their basis.

Table 4.1 Calculation of the α-Cronbach's reliability coefficient based on the results of the survey

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	200.8202703	184	1.491414512	2.08600087	2.22199E-13	1.192910224
Columns	162.3567568	7	23.19382239	44.32993437	2.28623E-56	2.016675717
Error	673.8932432	1,288	0.42320904			
Total	1,037.07027	1,479				
Cronbach's Alpha =	0.716236475					

Cronbach's reliability coefficient is α=0.72. It indicates that the questionnaire is reliable and the internal consistency of the conducted survey is acceptable.

CONCLUSIONS

The conducted research confirmed the connection between the development of the Ukrainian universities academic staff and the expansion of the institutional autonomy of these institutions, and also made it possible to identify the current conditions, trends and priorities for the implementation of the personnel autonomy of higher education institutions:

– increasing the level of professional and scientific competence of the academic staff;

– expansion of the spectrum of forms of its development;

– stimulating the development of the scientific and pedagogical potential of university teachers and researchers;

– development of objective criteria for evaluating this potential.

The results of the experiment proved the development of the Ukrainian universities academic staff to be one of the most important factors in expanding the institutional autonomy. The basis of such development is the expansion of the personnel autonomy of higher education institutions, which is recognized to be an essential factor for the implementation of other components of university autonomy, as the higher the complexity and "intellectual capacity" of the educational product or service created by the university is, the more it depends on the qualifications and competence of the academic staff.

In the course of the research, the following factors were found to be important for the effective development of the academic potential of Ukrainian universities:

– orienting the personnel policy of Ukrainian universities to the constant development of the potential of teachers and researchers;

– motivating academic staff to develop professionally and creating the necessary conditions for it;

– expanding the range of professional development forms for teachers and researchers at universities;

– increasing the influence of professional achievements on the career growth of scientific and pedagogical workers;

– improving the system of evaluation of academic staff performance and increasing its role in the development of the internal system of ensuring the quality of education.

Summarizing the results of the conducted research made it possible to find out the attitude of the academic staff to university autonomy, which creates favorable conditions for its development; trends and main directions of academic staff development at the institutional and personal level.

Based on the results of the research, it can be stated that in Ukraine today, one third of university scientific and pedagogical workers do not realize the importance of university autonomy and its organizational, financial and personnel components. This may indicate both the low legal culture of the scientific and pedagogical staff, which is manifested in insufficient awareness of the advantages and opportunities of the institution's autonomy for the individual, the university and society, and unreadiness (or unwillingness) of the academic staff to actively participate in the processes of implementing institutional autonomy. On the other hand, this may be evidence of distrust in the management system of universities, weak involvement of the academic community in management processes, the consequence of which is the opacity of financial decision-making in personnel matters, the formation of a support group of the administration rather than a team of professionals.

The main conditions for ensuring the effectiveness of this process include:

– the growth of the institutional autonomy of universities in all its components – personnel, financial, organizational and academic;

– application of various methods of assessment of academic staff activity;

– expanding the list of forms and types of professional development of researchers and university teachers, strengthening their subjectivity and opportunities to independently determine the form and type of professional development.

A condition that, in our opinion, requires revision and adjustment in the context of institutional autonomy is the decent remuneration of the academic staff of Ukrainian universities as a factor in increasing initiative, forming motivation for effective professional activity. At the same time, it was found out that the academic staff is not confident in transparency, impartiality and objectivity of independent salary determination.

The identified trends in the professional development of university academic staff can be divided into two groups.

The first one (positive trends) includes:

– the strengthening of the impact of the results of professional development of academic staff on their career progress, the growth of trust of academic staff in student evaluation of teachers' activities;

– diversification of forms of professional development of teachers;

– awareness by university teachers and researchers of the importance of informal and non-formal education.

The second group (negative trends) includes:

– the pursuit of quantitative indicators of teachers' activity to the detriment of qualitative ones;

– unification of requirements for the development of academic staff, which encourages them to adjust their own activity indicators to general templates.

We consider promising the following directions for ensuring the development of university academic staff under the conditions of expanding institutional autonomy:

– identifying and meeting their needs for professional growth;

– raising the social prestige of scientific and pedagogical workers;

– stimulating the teachers' professional growth, in particular, by reducing the educational load;

– strengthening teachers' motivation for professional development and scientific research;

– developing research and information infrastructure of universities for teachers' self-training;

– developing organizational, methodical and financial tools for managing academic staff professional development;

– improving the system for evaluating scientific and pedagogical workers' activities.

An important tool for stimulating university academic staff development is determining the teachers' rating and evaluation of the teachers by students, although the students' opinion was more trusted by the survey participants (14.4 % and 62.2 % recognized this tool to be objective) than the rating (only 35.4 % noted its positive role). Based on the high percentage of trust of Ukrainian scientific and pedagogical workers in student evaluation, we conclude that it is appropriate to introduce student ratings, but without exaggerating their results.

The main conclusion of the conducted research is that the universities of Ukraine have not fully implemented the legally established possibilities of expanding institutional autonomy regarding the development of university academic staff. Such development has not become a priority area of their activity yet and is mostly positioned as a personal need of scientific-pedagogical and scientific workers.

RECOMMENDATIONS

On the basis of these conclusions, the following recommendations were developed to ensure the professional development of universities' academic staff in the conditions of expanding institutional autonomy, under the circumstances of Ukraine's forced conduct of military operations against russian aggression.

Due to the fact that under these conditions, not only scientific and pedagogical workers and institutions of higher education, but also inter-institutional establishments/structures and state authorities are involved in the professional development of universities' academic staff, we consider it expedient to apply the level approach while formulating the recommendations.

At the institutional level, we recommend:

– to organize courses to improve the level of legal culture of scientific and pedagogical workers;

– to involve more academic staff in the implementation of institutional autonomy and management processes;

– to introduce tools for making management decisions that do not involve corruption risks;

– to create centres for professional development/pedagogical excellence of academic staff;

– to establish scientific, business and technological platforms based in universities;

– to more actively involve scientists from the scientific research institutions in higher education establishments;

– to develop and implement an effective system for stimulating the scientific and research activity of university teachers and intensifying their participation in national and foreign competitions and scientific and educational projects aimed at their professional growth;

– to create provisions and start teachers' contests of scientific-pedagogical skills and scientific creativity at the institutional level (universities – 1st round) and all-Ukrainian levels (Ministry of Education and Science of Ukraine – 2nd round);

– to introduce training technologies for developing research and methodical competence of the universities' academic staff, to use "peer to peer development" technologies;

– to pay more attention to the professional growth of young researchers and young teachers;

– to strengthen the cooperation of universities and scientific institutions on the improvement of qualifications and career growth of academic staff (internships, mobility, exchange of experience, promotion of excellence and quality of teachers' research, use of the results of scientific research in educational activities, etc.);

– to combine the possibilities of modernizing institutional systems of professional development of managerial, teaching and scientific personnel within the limits of university autonomy with strengthening the responsibility of managers, teachers and scientists of universities for the results of their work;

– to develop an institutional program to support the professional development of managerial, teaching and scientific personnel and to ensure its implementation at the university, in particular, to take measures to provide housing for managers, teachers and scientists who were forced to change their place of residence due to russian military aggression;

– to propose a legislative initiative to strengthen the social protection of managers, teachers and scientists of universities under the conditions of martial law and provide them with preferential loans for the construction/restoration of housing destroyed or damaged because of military operations;

– to implement a participative style of university management based on distributed leadership, strengthening the influential involvement of teachers and scientists in making management decisions;

– to delegate powers more widely and implement the principles of distributed leadership and corporate governance, strengthen self-regulation mechanisms, encourage initiative from "below" as opposed to carrying out transformations "from above";

– to create conditions for strengthening the personal involvement of academic staff in the university activities based on their care for common goals, demonstrating the benefits and advantages of such attitude;

– to introduce innovative technologies of search and selection of applicants for positions, create a personnel reserve in universities;

– to pay special attention to the professional development of managers, teachers and scientists who are internally displaced people;

– to support communication and interaction with evacuated managers, teachers and scientists with the aim of returning them to universities after the end of hostilities;

– to create psychological support service/centers in universities for participants of the educational process, primarily for temporarily displaced people;

– to develop a new corporate standard of excellence in teaching and learning, to create a system of moral encouragement and material stimulation, in which the amount of financial and material support of managers, teachers and scientists depends on the quality of their professional activity;

– to support the informal associations of managers, teachers and scientists at the university based on their professional interests (e.g.,"School of Mentors", "Society of Young Scientists", Centers of Teaching Excellence, Centers of Educational Innovation and Scientific Creativity, Summer Schools of Postgraduate and Doctoral Students, etc.);

– to motivate university teachers and scientists to publish their research results in scientific publications indexed in scientific-metric databases; Scopus and Web of Science Core Collection;

– to increase opportunities for studying foreign languages at universities, to raise the requirements for mastering them;

– to reorient the institutional system of professional development of managers, teachers and scientists to developing their broad professional competence and the ability to effectively replace colleagues who are in the area of hostilities or evacuated to another region of Ukraine or abroad;

– to deepen the digitization of the processes of programming, planning, support, coverage and monitoring of the functioning of the institutional system of managers, teachers and scientists' professional development;

– to develop infrastructure, educational space and educational and scientific equipment;

– to improve the mode of remote work with the possibility of working abroad, provided that they have access to the necessary equipment for carrying out professional activities;

– to provide additional financial support to teachers of non-philology majors who teach academic subjects in a foreign language;

– to organise "quick information and communication assistance" units and consultation centers within the structure of the institutional system of professional development of managers, teachers and scientists that would facilitate their access to the open information space and the free implementation of teaching and scientific activities online;

– to design individual trajectories of professional development for managers, teachers and scientists of universities which have to include professional goals, tasks aimed at improving and expanding the scope of professional competencies;

– to promptly introduce practice-oriented training courses for managers, teachers and scientists of universities (work in advance) on the basis of the analysis of professional needs, because if the period between the collection of information on training needs and the organization of the training itself is long, then the relevance of the training itself is lost;

– to organize remote training for managers, teachers and scientists on the basis of a single educational platform, which can ensure systematic work, control over both the educational process itself and the students' educational activities;

– to implement a differentiated approach to the organization of training of managerial personnel depending on the position and experience of managerial activity;

– to introduce, for newly appointed heads of universities, on-the-job adaptation programs with completion of all stages of adaptation (conducting a diagnostic assessment, formation of an individual trajectory of professional development, basic training (trainings, exchange of experience, etc.), practical activities with a mentor (former head of a domestic or foreign higher education institution) and final assessment);

– to develop measures to harmonize the needs of academic staff in professional growth with the priorities of institutional policy;

– to practice conducting competitions/contests of teaching or scientific and pedagogical skills and scientific creativity at the institutional and all-Ukrainian levels.

Taking into account the trend towards digitization of higher education, we focus on the need to develop the information and communication potential of university academic staff. For this purpose, we recommend implementing thematic courses and trainings on using digital technologies in teaching and research in the system of academic staff professional development.

Since the results of the study of the current state of assessment of academic staff activity in domestic universities have shown that, despite its positive value, the mechanisms for its implementation are still imperfect (the assessment is carried out by a narrow circle of people, it does not cover the entire spectrum of a teacher's professional activity), we believe that universities should work on the modernization of indicators and the procedure of rating assessment of the

activity of the academic staff in order to increase the prognostic and motivational functions of the assessment, to monitor the results of the teachers' activities in dynamics.

At the inter-institutional level, we recommend:

– to establish a partnership between universities and state institutions, public associations, and business in order to ensure conditions for the professional development of managers, teachers and scientists;

– to create inter-institutional educational and scientific associations and networks, where scientific and teaching development will be combined with language practices and cultural recreation (summer language camps; groups for social contacts on the Internet and social networks, online professional communities, professional associations of teachers, etc.);

– to support and encourage the creation of joint (dual) educational programs with universities belonging to the TOP-1000 world rankings;

– to involve foreign teachers into carrying out educational and research activities in Ukrainian universities;

– to stimulate the study of the English language by Ukrainian scientific and pedagogical workers, to increase the requirements for mastering it;

– to create centers for free study and deepening of the state language knowledge;

– to support cooperation between higher education institutions and scientific research institutions regarding the implementation of international scientific projects and programs, primarily of the European Union;

– to intensify the development of international virtual mobility of management personnel, teachers and scientists of universities;

– to introduce programs of internal mobility (internship) of management personnel, teachers and scientists in leading universities of Ukraine;

– to increase the effectiveness of attracting and using the funds of international programs to support science and innovation.

At the national level, we recommend:

– to determine the priority directions and measures for the restoration and development of the activities of universities in the de-occupied territories;

– to develop a legal framework for the creation of positions with dual affiliation and differentiated terms of employment contracts of scientific and scientific-pedagogical workers with flexible shares of scientific work and teaching;

– to constantly support efforts to strengthen existing and create new communities of Ukrainian scientists in the diaspora, develop joint research programs between the diaspora and Ukraine;

– to develop provisions on the selection and employment of scientific and research workers of higher education institutions;

– to introduce the following innovative technologies into the system of searching and selecting applicants for the positions of scientific and pedagogical and scientific employees of universities: recruiting, headhunting, electronic search, exclusive search, etc.;

– to create an electronic informational "Digest" in order to share the best practices of administrative, teaching and scientific activities of universities;

– to develop criteria and indicators for selecting applicants for management positions, positions of teachers or scientific workers to assess the relevant competencies and personal qualities and establish compliance with the position held.

Because of the insufficient efforts of the universities to ensure the continuous development of academic staff in the system of formal postgraduate education, we consider it appropriate to recommend that academic staff of universities become more actively involved in professional improvement in the system of informal education, using the opportunities provided by the educational legislation of Ukraine and the normative legal documents.

Implementation of these recommendations will contribute to the modernization of personnel strategy and policy of universities in the context of expanding institutional autonomy, in particular, in relation to ensuring the development of academic staff and ensuring the competitiveness and innovation of universities.

Implications for research and practice

The empirical material obtained during the survey and the practical recommendations provided by the results of its processing can be used in the development of institutional strategies and long-term development plans of Ukrainian universities in the context of expanding their institutional autonomy and increasing the scientific and pedagogical potential of the institutions of higher education.

The results of the survey will be useful for the management and administrative staff of the universities while developing strategies and programs of institutional development for the near, medium and long term, taking into account the attitude of university academic staff to various aspects of personnel autonomy, priority forms of professional development and tools for evaluating teachers' activities.

Further scientific research will be aimed at a comparative analysis of the European and domestic experience of ensuring the development of the universities' academic staff. Special attention will be paid to the issue of expanding personnel autonomy of universities as the basis of institutional autonomy.

ACKNOWLEDGEMENTS

The work was created within the framework of the implementation of scientific research of the Department of Integration of Higher Education and Science of the Institute of Higher Education of the National Academy of Sciences of Ukraine "Theoretical foundations and mechanisms for the development of scientific and pedagogical potential of Ukrainian universities in the context of the expansion of institutional autonomy" (2020–2022).

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest in relation to this research, whether financial, personal, authorship or otherwise, that could affect the research and its results presented in this paper.

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DOI: 10.15587/978-617-7319-70-1.CH5

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CHAPTER 5

DEFINITION, CLASSIFICATION, CHARACTERISTICS AND OPPORTUNITIES OF DEVELOPMENT RECEPTIVITY TO THE NEW

ABSTRACT

Justifying the relevance of the topic, the authors refer to the following methodological assumptions: triad fragility – stability – antifragile (Nassim Taleb); conclusions about the possibility of "the emergence of order from chaos"; alternative future development (Antonina Yevtodiuk, Ilya Prigozhin); conclusions about the presence of internal connections of a self-organized system with an external environment (Ilya Prigozhin, Hermann Haken). A multidisciplinary approach was used during the research; various scientific directions were integrated; results of theoretical scientific research and practical activities. Receptivity to the new is defined as the ability of an individual to perceive signs of the new (future) and to be guided by the formed idea (consciously or unconsciously) in its practical activities. The classification is presented according to predefined classification features within the definition of receptivity to the new: a form of knowledge of reality; leading aspects of the perceived object; dominant feelings; field of activity; components of the subject's experience; cognitive-emotional processes; environment of selected information; hierarchical level of the management entity.

Traits of a personality susceptible to new things are outlined. Identification of different types of receptivity to the new is given on the examples of autobiographical data of Alexander Fleming, Wilhelm Konrad Röntgen, Isadora Duncan, Fritz Haber, Henry Ford, Steve Jobs, historical socio-political events.

The means of developing individual and group receptivity to the new are revealed. Among the means of developing personal receptivity to the new, the following are presented: an idea creation algorithm, creative problem solving technologies, special exercises and techniques based on the principles of non-linear thinking. From the point of view of formation of team and organizational values, development of collective search and decision-making skills, importance is gained by corporate training in such modified forms as active training methods; modern management models and technologies; coaching training technologies. The issues of creating an idea management system are considered, as such, which stimulates the development of receptivity to the new within the organization, institution, institution.

KEYWORDS

Receptivity to the new, cognitive function, regulatory function, classification features, form of knowledge of reality, leading aspects of the perceived object, dominant feelings, field of activity, components of the subject's experience, cognitive-motional processes, environment of selected information, hierarchical level of the management entity, means of developing receptivity to the new, idea management system.

Recognition of variability as a leading feature of a person's lifestyle, along with the acquisition of basic knowledge, poses the following urgent task to modern education: to teach students to independently master new knowledge and information, forms and methods of learning, to perceive and produce changes, to develop the need for lifelong learning. Personal characteristics that, according to experts, will contribute to the acquisition of new competencies are "open consciousness", a heightened sense of the new, the ability to "catch, perceive new things" [1]; the ability to respond to challenges "mentally and physically" [2]. For example, living in the world of nanoseconds, nanometers [1], virtual worlds [2], etc.

In our opinion, today the selection is carried out in favor of individuals capable of living in marginal states. "Tsvishens", from an ontological point of view, is a person who is permanently in a state of alternation, who is in a situation "between" (reevaluation of values, reorientation of goals, etc.); in the context of the outlined problem – in the situation of permanent updating of one's own knowledge, abilities, skills.

The slogan "Education for life!" no longer works. "Lifelong education" is a response to rapid changes in information and technologies that must be constantly mastered.

Receptivity to the new becomes the main personal resource, the resource of innovative production, the dominant resource for achieving a stable balance of economic and social development under the conditions of co-evolution of rational innovations and socio-cultural traditions, which enables the productive modernization of social development.

Sustainable economic development requires the formation of optimal conditions for increasing the receptivity of employees to innovative activities, as a continuous source of creating competitive advantages of the organization, institution, and country. The accumulation of such abilities is becoming a global trend. In turn, interest causes the ability of some people, groups, organizations not only to emerge victorious from difficult life, production, business situations (which seem impossible to predict), but also to benefit from them.

Such different situations force us to look for appropriate social and psychological-pedagogical technologies, require employees to be able to combine the application of innate and acquired qualities with the requirements of the environment. Innovative structures require from the employee a special flexibility of thinking, an effective system of perception, an internal need for creativity, a unique form of self-realization and integration into the social system.

The importance of the outlined questions is substantiated by Antonina Yevtodiuk, Pavlo Kukhta, Valerii Pekar, Ilya Prigozhin, Nassim Taleb, Hermann Haken and other authors. However, the concept of receptivity to the new remains undefined, its classification is not concluded, its characteristics are not disclosed.

In view of the above, the purpose of the article is based on the application of a multidisciplinary approach and the integration of various scientific directions, the results of theoretical scientific research; of experience, opinions and beliefs – the results of practical activity, to justify the definition, to present the author's classification, to outline the traits of a personality receptive to the new, to reveal the possibilities of the development of individual and group receptivity to the new.

In this study, the authors support the understanding of interdisciplinarity as a scientific and pedagogical innovation that gives rise to the ability to see, recognize, perceive what is inaccessible within the boundaries of a single science (discipline) with its specific, narrowly oriented object, subject and research methods [3].

Receptivity to the new is a rather complex, multifaceted and multi-vector phenomenon, which can be investigated using the potential of an interdisciplinary approach. An interdisciplinary approach helps to overcome the narrowness of the pedagogical view and to enrich pedagogical science with the achievements of modern economic, sociological, philosophical, and psychological sciences in relation to a given topic. With the help of the application of the achievements of other sciences related to a certain topic, the integration of the latter is achieved at the level of construction of interdisciplinary objects, subjects, the study of which allows to obtain new scientific knowledge (in our case, in relation to receptivity to the new).

In the process of scientific research, scientific work from philosophy, sociology, economics, psychology, pedagogy was analyzed in terms of relevance, objective necessity, and the possibility of targeted influence on the development of receptivity to a new individual, group, organization (institution).

A relatively small number of works on receptivity to the new motivated the expediency of a comprehensive understanding of materials devoted to this problem. In particular, the sources used during the scientific search and which are referred to in the publication were studied (all types of publications: monographs, articles, abstracts of scientific works, conference materials, examination results, interviews with practitioners).

5.1 DEFINITION

Nassim Taleb in the book "Antifragile: things that gain from disorder" introduces the term antifragile as the opposite of fragility in the triad of fragility – resilience – antifragile [4]. Taleb introduces the concept of "antifragile" – the ability of systems not just to be invulnerable and resistant to a crisis (in contrast to fragile systems that a crisis destroys and kills), but on the contrary, the ability to emerge from a crisis even stronger than they were before it.

Antonina Yevtodiuk [5], Ilya Prigozhin [6] and other authors [7] investigate within the framework of social synergy nonlinear changes and processes of self-organization that arise in an unstable society, which justify the possibility of "the emergence of order from chaos." It is obvious that within the chaos there are signs of future order (possible orders). At the moment of bifurcation, it is necessary to take into account the alternative nature of the future development and the peculiarities of the non-linear behavior of society.

Ilya Prigozhin [6], Hermann Haken [8] note that a characteristic feature of developing open systems is their ability to self-organize. That is, during the exchange of information with the external environment, the self-organized system is able to select information that contributes to development. Accumulating, evolutionary transformations lead to qualitative changes in the state of the system.

That is, there are signs of the future in the present. In our opinion, the acquisition of a new quality, a new order will depend on the nature of perceived potential opportunities. The nature of the future order will be determined by a set of selected features.

By definition, perception is a form of knowledge of reality based on perception and feeling [9]. Perception (formed on the basis of perception and feeling) – reflection of objects and phenomena in their visual integrity, formation of an idea about objects [9].

That is, perception is the result of perception (involuntary and voluntary), during which information about individual properties of an object is combined into a sensory image and interpreted as information generated by objects or events of the surrounding environment [10].

The selection of signs of the new can be caused by the features of the surrounding objects and information: their brightness, location, unusualness, as well as a person's personal interest in them; can be characterized by the fact that a person sets a goal to perceive something and makes willful efforts for it.

Perception, in unity with the comprehensive characteristics of the object, also reflects the subject's multifaceted life (its outlook, past experience, interests, aspirations, hopes). The formed representation (consciously or unconsciously) performs a regulatory function – directs the subject's practical activity according to these properties of objects.

In our case, perception of the new is a form of knowledge of reality based on the perception and feeling of signs of the new in society, science, art, etc. Perception of the new (formed on the basis of perception and feeling of the signs of the new) – anticipatory design of objects and phenomena according to the signs of the new, formation of ideas about the objects of the future.

That is, the perception of the new is the result of perception (involuntary and arbitrary), during which information about changes in individual properties of an object is combined into a not yet clear image and interpreted as information about objects or events that will take place in the future. In the following, the perception of the new performs two interrelated functions: cognitive and regulatory. The lack of clarity stimulates the process of further learning about the characteristics of the object; forecasting uses all the previous experience of the subject (emotional, cognitive, practical), its outlook, interests, aspirations, hopes. At the neurolinguistic level, a regulatory

function is launched – the direction of the subject's practical activity according to the received information (or in the direction of the desired future).

Thus, receptivity to the new is the ability of an individual to perceive signs of the new (future) and to be guided by the formed idea (consciously or unconsciously) in its practical activities. Receptivity to the new is the degree to which an individual is relatively ahead of other members of its social system in perceiving new ideas, phenomena, discoveries that will determine the future.

5.2 CLASSIFICATION OF RECEPTIVITY TO THE NEW ACCORDING TO CLASSIFIED CLASSIFICATION SIGNS

The development of a classification of receptivity to the new is relevant.

During the development of the author's classification of receptivity to the new, we understood the classification as a multi-level, consistent division of the scope of the definition of receptivity to the new in order to systematize, deepen and obtain new knowledge about the members of the division [11]. The result of classification should be a system of subordinate concepts: a divisible concept is a genus, and new concepts (members of the division) are species of this genus, subspecies of species, etc. [12]. At the same time, each stage of division was carried out on a different basis. In this way, a system of distribution of objects by groups was formed according to predetermined features within the definition of receptivity to the new.

The divisive (generic) concepts of the classification of the definition of receptivity to the new are defined as follows:

– form of knowledge of reality;
– leading aspects of the perceived object;
– dominant feelings;
– field of activity;
– components of the subject's experience;
– cognitive-emotional processes;
– environment of selected information;
– hierarchical level of the management entity.

Below we present the system of distribution of objects according to defined divisive (generic) concepts within the definition of receptivity to the new.

Based on the form of knowledge of reality, we distinguish involuntary and voluntary receptivity to the new.

Depending on the leading aspects of the perceived object, we distinguish the following types of receptivity to the new: receptivity to new changes in space, time, movement, shape of objects.

Feelings can be the dominant basis of receptivity to the new (distant, contact, deep) can be the dominant basis of receptivity to the new. Accordingly, we distinguish receptivity to new visual,

auditory, olfactory, gustatory, tactile, tactile, pain, receptivity to new depth sensitivity (internal organs, muscle sensitivity, etc.).

By branch, we distinguish the receptivity to new things in society, science, art, etc.

As already mentioned, the perception of the new, forecasting uses all the previous experience of the subject, which makes it possible to isolate the receptivity to the new, depending on which part of the subject's experience is involved and, in turn, the formation of which part of the future experience is aimed at. In particular, this is the perception and formation of new outlooks; emotional, cognitive and practical experience in relation to the object of research. Receptivity to the new can be "turned on" (involuntarily or arbitrarily) by the subject's interests, aspirations, and hopes.

According to the cognitive-emotional processes that stimulate the detection, we distinguish analytical, synthesizing, analytical-synthesizing, emotional receptivity to the new.

According to the environment of the selected information, we distinguish receptivity to external and internal information.

According to the number of people involved:

– individual;

– group (innovation, project group);

– collective (enterprise, organization, institution).

Separately, we pay attention to the receptivity to new subjects of management, which, accordingly, makes it possible to distinguish by the hierarchical level of the subject of management (head of a structural component of an enterprise, organization, institution; head of an enterprise, organization, institution; government body of a country; region; industry) that exerts one or another influence on the economic policy of management objects.

Qualitative characteristics of receptivity to the new cause natural interest.

In order to acquire the properties of antifragile (according to Nassim Taleb), one must be flexible and mobile, ready to take risks – both for loss and for gain, have fixed costs and, in case of success, potentially unlimited gain, and, of course, seek possibilities [13]. It is appropriate to mention the saying attributed to Winston Churchill: "A crisis is always an opportunity".

Aleksandr Subetto [14] emphasizes the need for a specific critical attitude to the past (which led to the crisis, chaos), which "does not exclude", but "takes with it" all that contributes to the exit from the crisis, that which, from the standpoint of guarantee survival, could be called truly intelligent.

Ilya Prigozhin [6], Hermann Haken [8] note that a characteristic feature of developing open systems is their ability to self-organize. That is, during the exchange of information with the external environment, the self-organized system is able to select information that contributes to development.

According to Poincaré's famous statement, mind has creative power only when experience forces it to do so [15]. It is about the active involvement of the factor of the future and its influence on the formation of new trends in the development of science, technology, and education. In our opinion, it is about the desire to survive, to endure, to continue to develop.

From this point of view, it can be considered that any crisis is an impetus for development. A large number of people, by their very nature, are able to radically change only after getting into a hopeless, at first glance, situation. In our opinion, it is precisely in crisis situations that previously selected potentials (opportunities, strategies, behavioral patterns) can be realized. After all, "...nothing will come out of nothing".

Nataliia Tyshchenko considers readiness to move forward and quickly implement decisions, ability to change in response to external challenges to be an important trait [16].

Summarizing, it is possible to list the traits of a personality receptive to the new:

– an active attitude to the future, "attracting the factor of the future";

– a critical attitude to the past, which "takes" with it everything that contributes to the exit from the crisis, further development;

– flexibility and mobility, readiness to take risks;

– ability to self-organize;

– ability to change in response to external challenges.

The basis of receptivity to new things, like any other ability, is the potential of its bearer. In the UN Development Program, the concept of "potential" is defined as the ability of people, organizations, and communities to consistently perform certain functions, solve problems, and set goals [17].

In our case, it is the potential of the ability to perceive signs of the new (future) and to be guided by the formed idea (consciously or unconsciously) in one's practical activities; the potential ability of an individual or a group of other members of their social system to be relatively ahead in the perception of new ideas, phenomena, discoveries that will determine the future. This ability is borderline with professional, commercial, life, etc., intuition. The term "potential development" characterizes the task of increasing the level of such abilities (in our case, receptiveness to new things) of people and institutions.

5.3 EXAMPLES OF DETECTING DIFFERENT TYPES OF RECEPTIVITY TO THE NEW

Scientific intelligence autobiographical information of outstanding personalities (Alexander Fleming, Wilhelm Konrad Röntgen, Isadora Duncan, Fritz Haber, Henry Ford, Steve Jobs, etc.), historical events (the Great French Revolution of the 18th century, the struggle for independence and the establishment of the independence of the United States America in the 18th century, the Paris Commune in the 70s of the 19th century, the October Revolution of 1917 in Russia, the Chinese Revolution in the late 40s of the 20th century, etc.) drew the author's attention to the discovery of different types of receptivity to the new in different people in different historical periods.

It is relevant to generalize information regarding the detection of different types of receptivity to the new according to the identified classification features in different people in different historical periods.

In the author's classification of the definition, feelings can be the dominant basis of receptivity to the new to the new is defined by the following divisible (generic) concepts:

– form of knowledge of reality;
– leading aspects of the perceived object;
– dominant feelings; field of activity;
– components of the subject's experience;
– cognitive-emotional processes;
– environment of selected information;
– hierarchical level of the management entity.

Based on the form of knowledge of reality, we distinguish involuntary and voluntary receptivity to the new.

Involuntary (unintentional) receptivity to new things occurs when a person does not set a goal to perceive something and does not make an effort of will for it.

For example, the discovery of penicillin (which saved and still saves the lives and health of a large number of people) by Alexander Fleming is attributed to his sloppiness and a random coincidence of circumstances. While researching the flu, he did not wash the laboratory dishes in time and did not throw away the flu cultures for several weeks. So, one day, in one of a large number of unwashed Petri dishes, he discovered mold, which, to his surprise, suppressed the seeded culture of staphylococcus bacteria. Fleming left the cup on the laboratory table and went to rest. Alternating cold and warming in London created favorable conditions for the growth of mold and bacteria. In our opinion, in addition to the coincidence of circumstances, arbitrary receptivity to the new (prepared by previously acquired special knowledge and experience) worked.

Arbitrary, purposeful receptivity of the new is characterized by the fact that a person sets a goal to perceive something and makes willful efforts for it. In our opinion, the combination of involuntary and arbitrary receptivity of the new served Wilhelm Konrad Röntgen in the discovery of X-rays. At first, during his experiments, his attention was drawn to the fact that a vague greenish cloud appeared on the chemically cleaned screen at a distance of several feet. And then, by concentrating for several weeks on the cause of the glow, it was discovered that the cause of the glow was the direct rays coming from the cathode ray tube, that the radiation produced a shadow, and that it could not be deflected by a magnet – and many other things. In addition, it turned out that human bones cast a denser shadow than soft tissues, which is still used in radiography.

Depending on the leading aspects of the perceived object, we distinguish the following types of receptivity to the new: receptivity to new changes in space, time, movement, shape of objects. We imagine that it can be both a reaction to changes in the object that have taken place, thereby starting the process of changes in the environment (for example, service functionality), and predicted changes in space, time, movement, form (will cause a change in the object, service functionality, etc.).

Feelings can be the dominant basis of receptivity to the new (distant, contact, deep) can be the dominant basis of receptivity to the new. Accordingly, we distinguish receptivity to new visual,

auditory, olfactory, gustatory, tactile, tactile, pain, receptivity to new depth sensitivity (internal organs, muscle sensitivity, etc.). The emergence and development of impressionism in painting, sculpture, and music are demonstrative and illustrative of the specified classification feature. The choreography includes Isadora Duncan's "free" dance, based on her own feelings caused by the music. It is appropriate, in our opinion, to mention doctors who resorted to self-infection with the disease in order to describe the symptoms and effects of treatment based on their own feelings.

By branch, we distinguish the receptivity to new things in society, science, art, etc.

As already mentioned, the perception of the new, forecasting uses all the previous experience of the subject, which makes it possible to isolate the receptivity to the new, depending on which part of the subject's experience is involved and, in turn, the formation of which part of the future experience is aimed at. In particular, this is the perception and formation of new outlooks; emotional, cognitive and practical experience in relation to the object of research. Receptivity to the new can be "turned on" (involuntarily or arbitrarily) by the subject's interests, aspirations, hopes (which, in turn, causes a favorable or inhibitory effect).

This is precisely how we explain the fact of the influence of ideology on social changes in various countries of the world in the last two or three centuries. Political parties and social movements, which carried out radical transformations in all spheres of society's life, were guided by ideological doctrines, ideals, and programs that became a direct impetus for change.

The Great French Revolution of the 18th century, the struggle for independence and the establishment of the independence of the United States of America in the 18th century, the Paris Commune in the 70s of the 19th century, the October Revolution of 1917 in Russia, and the Chinese Revolution in the late 40s of the 20th century remained the most significant in world history, etc. It is believed that all of them were carried out under the banner of the struggle for the implementation of certain ideological principles and values (liberal-bourgeois, Marxist-Leninist, Maoist, etc.).

The most progressive modern ideology can be the ideology of creating a state whose goal is happiness of all citizens [18].

According to the cognitive-emotional processes that stimulate the detection, we distinguish analytical, synthesizing, analytical-synthesizing, emotional receptivity to the new.

Thus, the patriotic desire to serve his homeland was driven by Fritz Haber, a German chemist of Jewish origin, laureate of the Nobel Prize in Chemistry, for his contribution to the synthesis of ammonia, necessary for the production of fertilizers and explosives; the father of chemical weapons.

Henry Ford was stimulated by a passion for invention, the desire to invent a "carriage that moves itself" and then endlessly improve it (the author of 161 US patents), which led him to develop a technological line (conveyor), and finally – to establish the production of a "car for everyone".

Steve Jobs' real talent was not in building computers, but rather in anticipating the wants and needs of potential consumers; understanding the transformative impact of personal gadgets.

Fritz Haber, Henry Ford, Steve Jobs influenced the formation of the world in which we live today.

According to the environment of the selected information, we distinguish receptivity to external and internal information.

In particular, for the closed model of the innovation process, the sensitivity to internal information is important, which at first glance can solve all the problems related to the innovation process independently within the enterprise, organization, institution. For example, Medtronic (USA) owns 25 research centers in which 45,000 employees produce innovations [19].

If we extrapolate certain provisions of nanotechnology to the indicated question ("nano" means one billionth (10^{-9} power) part of anything) and take into account that there are more than 6 billion people on the globe, we can conclude that every person is a potential carrier of the proposal, which will change the performed work, technological process, etc., for the better. The combination of such nano-proposals can cause a cumulative effect and lead to significant changes.

In the context of the theory of open innovation, sensitivity to external information, receiving valuable offers from partners, end users, and constructive cooperation with competitors becomes important. According to Henry Chesbrough, open innovations are "valuable ideas that can come both from the company itself and from outside and can be provided on the market as a result of both the actions of the company itself and other structures" [20].

According to the number of people involved, we distinguish individual, group (innovation, project group), collective (enterprise, organization, institution) receptivity to the new.

Separately, we pay attention to the receptivity to new subjects of management, which, accordingly, makes it possible to distinguish by the hierarchical level of the subject of management (head of a structural component of an enterprise, organization, institution; head of an enterprise, organization, institution; government body of a country; region; industry) that exerts one or another influence on the economic policy of management objects.

5.4 INDIVIDUAL AND GROUP RECEPTIVITY TO THE NEW, POSSIBILITIES OF THEIR DEVELOPMENT

Today's fast-moving world requires a high level of receptivity to the new. The winners are those who, faster than others, are able to respond to new changes in science, production, education, society, perceive them, reflect, and implement what is planned. The logical issue is the development of individual and group receptivity to the new.

Concepts, possibilities, methods of development of receptivity to the new in everyday activities and in the learning process were studied by Genrih Altshuller [21], Albert Bandura [22], Tom Wujek [23], Svetlana Kuzheva [24], William Lazier [25], Vladimir Nikolko [26], Nataliia Sas [27–29], Aleksey Sitnikov [30], Anatoliy Shevyirev [31].

Personal receptivity to the new can be developed by mastering the idea generation algorithm, the technology of creative problem solving, special exercises and techniques based on the principles of non-linear thinking. The most famous of the individual ways of finding new ideas are: direct analogy, personal analogy, fantastic analogy [32].

Direct analogy – ready-made solutions of similar tasks in other areas of knowledge are used, with their subsequent adaptation.

For example, the analogue of a salt shaker in medicine is saline solution (the same table salt, but dissolved in water), which is usually introduced into the body through a needle from a syringe or a dropper. Well, we have already received the idea of a new salt shaker with a concentrated salt solution that is squeezed out through a narrow opening, and this fruitful idea can be further developed.

Personal analogy – it is suggested to enter the role of the object that needs to be invented, to concentrate on feelings and ways to solve the problem. Imagine yourself as a salt shaker with a holey metal lid on your head and listen to your inner feelings. Yes, it is not very pleasant when you are shaken upside down over a plate of hot soup. It is much more comfortable to be in a natural position. The new salt shaker must have a dispenser and a hole on the bottom side – you press the button from above, the lid opens from below and the necessary portion of salt is poured into the plate. Very intelligent and no risk of getting burned.

A fantastic (fairy tale) analogy suggests introducing fantastic means or characters into the task: "Sit down more comfortably, I will tell you a fairy tale. This happened in those distant times, when people did not have salt shakers yet. And when they needed salt, they came to the giant Salty sedge and chopped off pieces of rock salt from him with huge axes, and then at home they broke these pieces into smaller pieces with a hammer. One poor family ran out of salt, but there was no one to go to the store because dad was working and mom was sick. Then the two small children went to the cliff by themselves, but they did not have enough strength to break off even a tiny piece. They grieved at first, and then thought and decided to sing a humorous song. The Rock laughed, laughed so hard that tears fell from his eyes, and each tear turned into a salt bead. Smart children collected these beads and took them home". That's how another idea was born.

It is not easy to use analogies, and, most importantly, this technique does not relieve painful creative searches.

Svetlana Silvanovich [33], Aleksey Sitnikov [30] believe that the formation of an effective innovative personality orientation is possible on the basis of mastering **psychophysiological technologies** aimed at the ability to:

– carry out self-programming, to change certain qualities, to block oneself from the accumulation of negative emotions;

– effectively use internal resources;

– to motivate, as a manager, both itself and it subordinates to achieve long-term goals;

– take a look from the future.

NLP (neuro-linguistic programming) techniques can be particularly effective for activating creative thinking, and the simplest of them is "resource anchoring". The essence of this technique is to consciously and at the right moment summon and use one's psychological resources, for example, the state of creativity, mastery, perfection. In order to create an "anchor", it is necessary to recall cases from your life when such a resource manifested itself most intensively: situations in

which you gushed with ideas, easily generated brilliant solutions, were overflowing with creative forces and inspiration. Then immerse yourself in the memories, recreate that resource state of yours and feel again. Choose an anchor – a kind of "button" that will trigger the desired state. It can be a tactile sensation, a sound, a visual image. Next, return once again to the experience of the resource state of creativity and, after waiting for the peak of its intensity, put an anchor, for example, touch a point on the brush of the left hand. Repeat several times. Check – if the anchor is set – touching the selected point on the left hand brush automatically reproduces the resource state of creativity. Then – pour out ideas.

A deeper technique is reframing. The word "reframing" literally means "to put in a new frame", it is used in NLP to denote the process of changing the perception of a situation. "Going beyond" one's own and collective stereotypes is the basis of any creativity. Reframing requires some training or the help of an NLPier, but the results are worth it.

One of the postulates of NLP shows that what at least one person in the world can do, others can repeat. NLPiers study the creativity of prominent figures and shoot models from them. Walt's Creativity Strategy can be very helpful Disney, a description of which can be found in special psychological literature.

Its essence is that the process of generating new ideas is separated from their criticism, which removes internal barriers. Walt Disney mentally placed three characters in the corners of his room – the Dreamer, the Critic and the Realist.

Then he incarnated in each of them in turn. Taking the place of the Dreamer, he put forward new ideas, indulged in fantasies. Having moved to the Critic's corner, he looked for flaws and weak points, smashing the rainbow castles of the Dreamer to pieces. Moving to the corner of the Realist, Disney weighed all the pros and cons and looked for the best option. The effectiveness of such a strategy has been proven by the entire career of Walt Disney, who went from a poor animator to the creator of a multi-billion dollar empire and became one of the most successful businessmen in the world.

Even more profound techniques, based on the incredible possibilities of our subconscious, are based on the use of trance states. It looks like this. The formulated goal is to invent Super salty. After a few vague phrases spoken by the specialist or the subject himself, the latter is "disconnected" from reality for a short time, and then he returns back with a ready-made idea of a wonderful Super salty. The usual miracle happened.

The analysis of modern research revealed contradictions between the need for people with a high level of receptivity to the new in the conditions of a constantly changing environment (the presence of special personal and professional qualities, the complexity of activities, etc.), and the absence of developed effective programs for their development.

From the point of view of the possibility of self-improvement of the flexibility of thinking, increasing the level of receptivity to the new, increasing the desire to acquire new knowledge of innovative management, the self-control program developed on the basis of the social-cognitive theory of Albert Bandura [22], which was detailed by David Watson and Roland Tharp, is of interest.

David Watson and Roland Tharp suggested that the process of behavioral self-control consists of five main steps. They included defining the behavior to be influenced, collecting baseline data, designing a program to develop the desired behavior, implementing and evaluating the program, and terminating the program:

1. Determination of the form of behavior. The initial level of self-control is identifying the exact behavior that needs to be changed. Unfortunately, this crucial step is much more difficult than you might imagine. Many of us tend to think of our problems as certain negative personality traits, and it takes a lot of effort to accurately describe those traits. Regarding the problem under consideration, it may be desirable to develop flexibility of thinking, increase the level of receptivity to new things, increase the desire to acquire new knowledge, etc. Innovative management requires finding ways to finance innovative activities, successfully promoting one's institution, which, in turn, requires being in contact, being able to convince, prove, interest, etc. To determine the limitations of professional activity, it is advisable to use the questionnaire "Analysis of your limitations" [34].

2. Collection of basic data. The second step of self-monitoring is gathering basic information about the factors influencing the behavior we want to change. Regarding our problem, it can be: learning to see the same objects from different angles; to learn the technique of removing criticism and idealization that prevent creation, to motivate oneself to further develop one's receptivity to the new. Choose exercises and tasks, appropriate algorithms, technologies for finding ideas that contribute to the activation of thinking, arm yourself with methods of combating psychological inertia, form skills for solving creative tasks, that is, transform the process of creative thinking from chaotic to clearly organized and controlled. It is also important to choose a time to perform the exercises, some of them can be performed in the morning while taking a shower or in the evening before going to bed, try to record the time, circumstances, environment in which the maximum effect of the exercises is achieved. In fact, we must become like a scientist who observes our own reactions and their manifestations, recording their frequency for feedback and evaluation. In social-cognitive theory, the collection of accurate data about the behavior to be changed is not at all similar to the global self-understanding that is emphasized in other therapeutic techniques.

3. Development of a self-control program. The next step in the process of changing your behavior is to develop a program that will effectively change the repetition of a specific behavior. According to Albert Bandura, changing the frequency of repetition of this behavior can be achieved in several ways. Basically, this is self-reinforcement, self-punishment and planning of the environment.

Self-reinforcement. Self-reinforcement in social-cognitive theory means that the individual encourages and rewards itself, and it is able to control this process. At the third stage, you should determine what consequences (pleasant events, situations, etc.) will have the character of self-reinforcement for you. In the process of work, you need to constantly encourage yourself to act in the desired way. Although the basic strategy is quite simple, some tips for developing an effective self-reinforcement program will be useful. First, since behavior is controlled by its consequences, it obliges a person to organize these consequences in advance in order to influence the behavior in the desired way. Second, if in a self-control program self-reinforcement is the best strategy,

it is necessary to choose a reinforcing stimulus that is actually available to the person. The leading motive in the system of self-reinforcement for the head of an educational institution is the expectation of success and attractiveness, the provision of positive guidelines for organizing one's behavior, the conscious loss of options for successful actions and decisions – increasing self-efficacy.

Self-punishment. In order to reduce the repetition of unwanted behavior, you can also choose a strategy of self-punishment.

You can remember preparing for exams at school age. Many people, having not studied the planned number of tickets during the day, punish themselves by planning to study twice as many tomorrow. However, a significant disadvantage of punishment is that many people find it unnecessary to constantly punish themselves if they fail to achieve the desired behavior. To cope with this, you should remember two guidelines. First, if learning skills are the problem, it's best to use punishment in conjunction with positive reinforcement. Combining aversive and pleasurable self-regulated consequences is likely to help implement a behavior change program. Second, it is better to use a relatively mild punishment: this will increase the probability that it will really be self-regulating. The balance of situational self-reinforcement and self-punishment is highly individual.

Environment planning. In order for unwanted reactions to occur less frequently, it is necessary to change the environment in such a way that the stimuli preceding the reactions or the consequences of these reactions are changed. To avoid temptation, a person can avoid tempting situations, firstly, or, secondly, punish itself for giving in to temptation.

Our life is determined by our environment. In everything that has happened to you so far, in your past, which you cannot influence now, your immediate environment played a certain role. It makes no sense to question the human qualities and value of those around you. You can continue to love and appreciate them for what you have, but only listening and following their advice on innovative activity, development of innovative management technologies is suicide, except for those cases when they themselves have already achieved something. You will inevitably be influenced by your environment, because every person from childhood uses the same method of learning – imitation. It is not for nothing that they sometimes say: "with whom you behave, you will gain". If you want to strengthen your own innovative capabilities, communicate with successful people, learn to do what they already know how to do. It is best to unite with others of your kind to jointly acquire the necessary knowledge and skills in innovation management.

4. Implementation and evaluation of the self-monitoring program. After the self-modification program is developed, its implementation begins, adaptation to what seems necessary. It must be borne in mind that for the success of a behavioral program, constant vigilance is necessary in the interim period, so as not to return to old forms of behavior. An excellent means of control is a contract with oneself – a written agreement with a promise to adhere to the desired behavior and use appropriate incentives and punishments. The terms of such an agreement must be clear, consistent, positive and fair. It is also necessary to periodically review the terms of the contract to make sure of their expediency: many initially set unrealistic tasks, which often leads to unnecessary complications and despair in the self-control program. To make the program as successful as

possible, at least one other person (friend) should participate in it. It turns out that it makes people take the program more seriously. Consequences should also be detailed in the contract, with terms of incentives and penalties. And finally, incentives and punishments should be immediate, systematic and take place in fact, not just verbal promises or verbal intentions.

David Watson and Roland Tharp note several of the most common mistakes in implementing a self-control program. These are situations when a person:

a) tries to accomplish too much, too quickly, setting an unrealistic goal;

b) allows a long delay in encouraging appropriate behavior;

c) establishes weak incentives.

Such programs are not effective enough.

5. Completion of the self-monitoring program. The last step in the process of developing a self-monitoring program is to clarify the conditions under which it is considered complete. In other words, a person must accurately and carefully determine the ultimate goal – regular exercise, reaching a set weight or stopping smoking within a specified period of time. It is useful to complete the self-control program by gradually reducing the frequency of incentives for the desired behavior.

A successfully executed program can simply disappear by itself or with minimal conscious effort on the part of the person. Sometimes a person can decide for itself when and how to end it. The goal is to form new, improved forms of behavior that are preserved forever. Of course, a person should always be ready to restore self-control strategies if maladaptive reactions reappear.

A new approach to managing the development of a manager's personal qualities is **the use of a universal performance indicator system (TPS)**.

A personal system of balanced indicators includes information about a person's personal mission vision, personal key roles, personal success factors, personal performance indicators and tasks, improvement measures. The system of indicators develops one's own sense of self and success and stimulates constant self-improvement (**Fig. 5.1**).

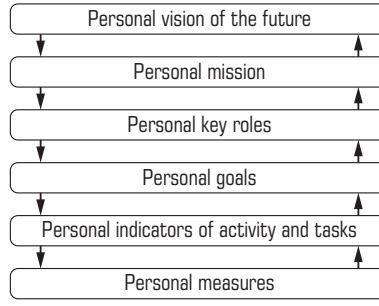

Fig. 5.1 Individual system of balanced indicators
Source: Authors' design

Four elements of a balanced scorecard form an effective tool for determining key success factors (**Table 5.1**).

Table 5.1 Tools for determining key success factors

Element of the scorecard	Success factors
Financial perspective	Financial well-being
External perspective	Perform work at a high level. To move towards success together with colleagues, to maintain an open and harmonious atmosphere. Be a support for children
Internal perspective	Strive for physical and mental health. Be proactive and constantly learn to enjoy your work. Maintain a balance between professional and personal life
The perspective of knowledge and learning	Constantly develop professional qualities

Applying the PDCA model is the next step in the process of self-improvement. The PDCA Cycle, or Deming Cycle, is a model of continuous quality improvement. It consists of a logical sequence of four repeated stages for continuous improvement and learning: PLAN, DO, CHECK and ACT (**Fig. 5.2**).

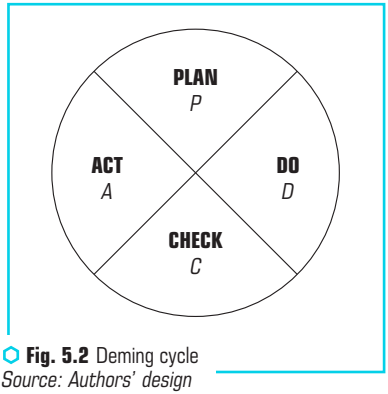

Fig. 5.2 Deming cycle
Source: Authors' design

In our case, the Deming cycle was used to build a self-improvement system with a specific interpretation of it for a specific subject.

Plan:

– development of own balanced system of indicators;

– formulation of a personal balanced system of indicators in such a way that the main attention is paid to work and free time;

– creation of a system of simple goals and appropriate actions for its improvement.

In the work-related part, it is necessary to discuss the system of indicators with the immediate supervisor.

Do:

– carry out all plans;

– involve your manager, colleagues, subordinates, clients, and/or those whom you trust in evaluating your results;

– develop your competencies to achieve your goals.

Check:

– analyze the results in accordance with the established results indicators and their target values;

– find out the degree of fulfillment of own plans, and if necessary, adjust the personal balanced system of indicators;

– together with a trusted person, analyze the system of indicators for the formation of a plan for continuous improvement.

Get over:

– be ready to overcome difficult obstacles and choose more difficult goals;

– choose goals corresponding to new competences and knowledge, when previous improvement actions are no longer inspiring;

– enjoy the improvement process;

– write down everything you have learned;

– observe the improvement of your actions and thinking skills.

Thus, analyzing the results of the assessment of balanced indicators for the past period and now, it can be concluded that after a thorough analysis, a certain subject has determined the necessary priorities for its own development (**Table 5.2**).

A 360-degree evaluation method is proposed for receiving feedback. The 360-degree evaluation refers to the "circular evaluation" of the employee by the immediate supervisor, employees of the corresponding category of its or adjacent departments, subordinates, as well as the employee's evaluation of itself. The purpose of the 360-degree assessment is to determine the level of development of the business qualities of employees.

The assessment procedure includes the following stages:

– preparatory stage;

– survey;

– processing of results;

– preparation of assessment reports.

In the evaluation of the research subject, the following participate:

– the evaluated person;

– senior manager;

– a lower-ranking employee of a subordinate unit;

– the head of the adjacent unit.

The assessment allows the research subject to:
– receive feedback when reviewing the evaluation report;
– better understand your strengths and weaknesses;
– decide on personal development in the direction of career growth.

Table 5.2 Summary table of balanced improvement indicators

Formulation of a personal system of balanced indicators and continuous improvement	Priority 1–5	Current (X) and desired (0) level				
		1	2	3	4	5
Personal vision of the future	4		X		0	
Personal mission	5		X		0	
Personal key roles	5			X	0	
Personal success factors	5			X		0
Personal goal setting	5			X	0	
Personal performance indicators	5			X		0
Target values based on personal goals	5			X	0	
Improvement process	5		X			0
Application of the PDCA model to the process of personal improvement	4	X			0	
Overall assessment						

And if earlier these were mainly short-term goals, without a built line of vision for one's own future, then with the help of these means one can consciously make decisions about the direction of one's development as an individual in the surrounding society.

The solution to any problem involves mastering and using **methods of finding new ideas and acquiring knowledge and skills for solving creative tasks**.

According to Anatoliy Shevyirev, "own technology is not only in the production of things, but also in the production of ideas". The head of the educational institution can go all the way to finding a solution on his own or start searching for information about existing solutions.

Thomas Edison is credited with saying: "If you want to come up with great ideas, know that you can borrow the best ideas". Everything that can benefit the activity of the educational institution is worthy of use.

There are many methods of finding ideas. With some degree of convention, we singled out the following groups: methods of psychological activation of thinking, methods of systematic search, methods of collective search for management solutions, methods of production management, applied as innovative in the management of educational institutions.

Each of the methods aims to facilitate the search for a solution to a creative task compared to the so-called "trial and error" method that a person usually uses. The feasibility of using a method belonging to one or another group depends on the complexity of the problem being solved.

For the individual solution of tasks, it is advisable to use methods of psychological activation of creative thinking and methods of finding alternative options belonging to the first two groups.

Methods of psychological activation of creative thinking are aimed at eliminating the so-called psychological inertia of thinking, which prevents a comprehensive consideration of the problem, hinders the finding of management solutions and new management ideas. These methods include the idea generation algorithm discussed above, creative problem solving technologies, special exercises and techniques, based on the principles of non-linear thinking.

Methods of psychological activation of thinking: in addition to the already described methods of the analogy method, they include the method of focal objects, the RVS operator, the "Method of little men", the "Method of garlands of associations and metaphors", the "Six thinking hats" method, the "Coaching" method, inversion method, idealization method.

Methods of creative search for alternative options contribute to the activation of the management decision-making process and the resolution of problematic issues.

To the methods of systematic search, we include lists of control questions, morphological analysis, functional analysis, functional design method of Matchett, method of multiple sequential classification, method of synthesis of optimal forms, method of systematic economic analysis and element-by-element development of constructive solutions, "Five Whys" method.

An indicator of the organization's receptivity to innovations can be the term of introduction of a specific innovation or the total number of innovations accepted for development in a specific organization at a certain time. Thus, the faster the implementation decision is made or the more innovations are mastered in a certain period of time, the higher the organization's receptivity to new things.

The receptiveness of organizations, institutions, and institutions to innovations is a characteristic of their innovation systems, which is expressed in the ability to find innovations that are potentially useful for themselves, adequately evaluate them and rationally choose them, based on the needs and opportunities of their development. The receptivity of organizations, institutions, and institutions to innovations largely depends on such factors as the fact that leaders and teams are aware of the need for the development of the institution (organization, institution), their awareness of existing developments, criticality in the evaluation of the existing ones in the institution (organization, institution) of production, management systems and the quality of innovation assessment methods.

In every institution (organization, institution) there are categories of employees with a high level of receptivity to the new, but there are also specialists who can increase the level of receptivity to the new under the conditions of purposeful training (individual and group).

Among the possible forms of increasing the level of knowledge and skills: independent work, studying at advanced training courses, attending thematic seminars, trainings, consulting

specialists on certain issues. The disadvantage of these forms is that a large group of managers, employees of one institution, institution, organization cannot participate in them due to the need to carry out operational management, participation in the production process. From the point of view of formation of team and organizational values, development of collective search and decision-making skills, corporate training becomes important [36].

Corporate training can significantly increase the ability to generate ideas, show creative initiative, put forward original ideas; the ability to manage innovation as a process (make decisions in conditions of uncertainty, take financial and entrepreneurial risks, be able to overcome organizational and psychological difficulties); carry out information provision, analysis of the external environment and internal capabilities, etc. [28, 39, 40].

Among the approaches to the purposeful influence on the collective receptivity to the new, we pay attention to the one that allows us to identify and increase the level of favorability to the new in the activity (we mean active forms of training).

Active learning is widely characterized as a method of forming an innovative component of professional activity in institutions of higher education [39, 40]. Thus, Natalia Sofiy, Vira Kuzmenko consider active learning methods to be means of activating the educational and cognitive activity of students, which encourage them to intensively master the material [41].

Maryna Diachenko-Bohun interprets active learning methods as a set of measures aimed primarily at the possibility of teaching to think prospectively, non-traditionally, alternatively, at the development of the student's need for knowledge, the emergence of personal interest in the results of work, the formation of a creative approach to tasks [42]. Methods and forms of active learning developed on the examples of higher education institutions can be implemented in the organization of corporate training.

Active learning is based on the principle of the student's direct participation in the educational process, which is focused on finding ways and means of solving the problems studied in the educational course. For this, it is necessary that the educational process be an imitation of the environment in which future specialists work or will work, as well as ensure the formation of abilities for practical tasks, to change and improve the subject world where they live and work.

A high degree of flexibility and adaptability of active learning methods helps the teacher (trainer, speaker) to use them with equal effectiveness in the following cases: at the end of a lecture, story, conversation – as a practical justification of the relevance of the issue raised; in the introduction to a lecture, story, conversation – to formulate a practical problem to be solved; during the illustration of the theoretical provisions outlined in the content of the lecture; presentation of new material, when one part is communicated by the teacher monologue, and the other – using an active method; instead of a lecture, the topic of the lesson is revealed by using an active method.

In line with the analysis of this issue, Tetiana Vakhrusheva [43], Vershinina Galina [44] specify the tasks that are solved by introducing active methods into the process of training future specialists in innovation management:

– subordinate the learning process to the actions of the teacher (coach, speaker);

– ensure active participation in educational work of both trained and untrained participants;

– implement educational functions (consolidate theoretical knowledge; practice new techniques and methods; find out the conditions of application of acquired knowledge and practical skills; form methods of cognition and activity, self-development and self-realization);

– perform management functions (work out the management system and its functions: organization, planning, accounting, control, analysis, coordination, regulation, etc. to implement the strategy of innovative development; forecast the development of the institution, organization, institution; solve the problem situation, etc.);

– implement research functions – master the management decision-making algorithm (identifying a problem, setting a task, finding ways to solve a problem, etc.);

– establish direct control over the process of assimilation of educational material.

The author's experience allows us to talk about the use of a whole complex of active methods of organizing the educational process, including business, role-playing and didactic games.

Active methods of organizing the educational process during the assimilation of new knowledge, techniques, methods of work significantly reduce the pressure of stereotypes formed in the professional sphere, since new techniques do not compete with old ones, but are included in other conditions and when solving other tasks [24, 35].

With the help of active methods of organizing the educational process, the barriers of communication and perception of the participants (age, gender, etc.) are overcome. An important role is played by the motivation and mood of the learner, as well as the organization of the educational process.

The use of active methods in the organization of corporate training determines the expenditure of additional efforts by the manager (institution, organization, institution) to solve management tasks and develop a strategy. If this does not happen, then it "slips" to the repeated traditional path.

Among the modern management models and technologies that allow creating a management team receptive to innovations and achieving a stable positive result, Anna Peretiatko singles out the following:

– model of decision-making in conditions of uncertainty – sequence of actions of members of the management team: from information analysis; on the development of criteria for comparing alternatives; from the selection of the optimal decision option;

– mechanisms for the formation of managerial will – practical methods aimed at filling the "will deficit" of the head of an institution, institution, organization, the application of which allows you to manage their development;

– responsibility distribution matrix and process-job matrix – an approach to the structuring of functions and job duties, which is aimed at the optimal distribution of responsibilities between managers and specialists and promotes the concentration of attention on the results of the activities of the institution, institution, organization to meet the needs of the end user of goods and services;

– the algorithm for creating a management system – a sequence of steps for creating a system order regarding the management functions of an institution, institution, organization;

– project and program portfolio management – a strategic project management tool that allows timely management decisions regarding the initiation, suspension or closure of projects and programs;

– method of scenarios for implementing changes – a method of planning and organizing events that allows you to quickly implement changes in the activities of an educational institution, avoiding the loss of resources and time, and others [41].

It is important to master the methods of collective search for ideas. Among such methods are: brainstorming, brainwriting, metaplan, or moderating method, collective notebook method, CNB-method, method 635. These methods are characterized by the fact that during a conversation/meeting or discussion, the participants within a clearly defined time, they present their ideas or even just concepts and words according to the given topic. After that, an analysis and analysis of all expressed ideas and decisions is made.

Wide use of various methods of group dynamics, collective search for ideas allows members of the management team, the organization as a whole, to develop tolerance, respect for the opinions of colleagues, the ability to listen and hear and achieve a synergistic effect, when the overall result significantly exceeds the achievements of team members using traditional methods (working meetings, meetings of methodological commissions, etc.).

That is why traditional business trainings aimed at any audience are dying out. Coaching learning technologies are taking their place. With the help of individual and group coaching, you can quickly identify the need, moderate the finding of their solutions. Individually created training programs for the requests identified in this way are becoming more and more widespread. Business trainings of a new generation, business sessions, master classes, created specifically for the problems and requests of employees.

We will give several examples of the transformation of outdated training methods into new forms of work with personnel:

Example 1. The technology of using metaphorical associative coaching cards, which allows you to quickly teach applied coaching. This technology is applied in nature, in contrast to traditional coaching with its fuzzy psychotherapeutic reflections.

Example 2. Team building trainings should go into the field of group coaching, into a team style of management, which involves a clear step-by-step implementation. The formation of the team should be measurable according to the identified criteria. And such a test that changes the level of team development has already been created. It is called "Assessment of the potential of the team" and is carried out at the initial stage of working with the team and after interventions for its development. It gives the business real performance indicators, simplifies the process of building teams and makes it technologically understandable. Today, team building trainings are focused on the organization of corporate holidays, which are emotional, but technologically blurred, and their results cannot be transferred to business.

Example 3. Corporate trainings should be transformed into a workshop on finding better ways to solve business issues. For example, creative workers should be united in creative teams, which will aim to find better experience in solving problems in the professional field.

That is, corporate training should become accessible and technological. Training should simplify and reduce the risks of employees in the implementation of difficult tasks and the achievement of ambitious goals of the company, institution, organization. Employees acquire skills at the workplace, in the mode of communication with managers. Corporate trainings, trainings for managers should not replace the work of managers with employees. They should supplement it in those areas where employees cannot receive ready-made solutions directly from the manager, for any reason. Such corporate training, in our opinion, is valuable not only for employees, but also for managers. Thus, the trends of modern corporate training on the development of receptivity to the new are closely related to innovative processes, business development trends.

Comprehensively, all the above-mentioned means of development of receptivity to the new are applied in the innovative business game. An innovative business game is a kind of system of reproduction of management processes that took place in the past, are happening now and are possible in the future.

Understanding the importance of an innovative business game in the development of receptivity to the new is difficult to overestimate. It is necessary to understand this method as an implementation of the dialogic principle in corporate training. The game simulates one or another aspect of professional activity, activity of an organization, company, or institution. Game participants are given roles that determine the difference in their professional interests and incentives. Game actions are regulated by a system of rules.

In the business game, the spatio-temporal characteristics of the simulated activity are transformed. The game is conditional.

The contour of the regulation of the game consists of the following blocks:

– conceptual;
– scenario;
– production;
– stage;
– block of criticism and reflection;
– referee;
– block of providing information.

The qualification of the innovative business game is carried out according to the simulated object – there is a general management and functional game (simulation of production, management, financial activities).

The goals of the game are consistent with the practical needs of its participants. The organization of an innovative business game removes the contradiction between the abstract nature of the game process and the real nature of professional activity. The method allows you to combine a wide coverage of problems and the depth of their understanding.

The game form corresponds to the logic of activity, includes a moment of social interaction, prepares for professional communication; promotes greater involvement of participants in the problems of the institution, organization, company, institution in the conditions of innovative changes; in the game, professional attitudes are formed, stereotypes are easily overcome, and self-esteem is adjusted.

In combination with the dominance of the intellectual sphere, the personality of the participants is manifested in the business game. The business innovation game provokes the inclusion of reflexive processes, provides an opportunity to interpret and understand the obtained results, contributes to the formation of internal motivation for innovative changes and the achievement of successful results in reality. During the construction of the game, the organization of the joint activity of the players, which has the character of role-based interaction in accordance with the rules and norms, is assumed.

Achieving the goal occurs by making group and individual decisions [26].

The content can be a phenomenon to which there are many approaches (theoretical and practical), due to different semantic positions of the participants. The fabric of the event should represent a constant clash of interests of the game participants. The game is built as a hidden dialogue of meanings.

The situation should imply the ambiguity of decisions, contain an element of uncertainty, which ensures the problematic nature of the game and the personal expression of the players. Direct formulation of the problem or pointing to it is inadmissible. At the same time, rules and norms are formulated unambiguously and unconditionally.

In the context of the game, there are opportunities for each player to make a decision and ensure that the participants are aware of it. To implement the procedure of the innovative business game, a package of documents containing the rules of the game and instructions for using certain management tools to implement the procedure, as well as forms and forms of the proposed technologies, is being developed:

Stage 1. Brain storm.

Stage 2. Analysis of the external environment (STEP-analysis).

Stage 3. Internal environment analysis (SWOT-analysis).

Stage 4. Summary analysis of the organization's environment (SPACE-analysis).

Stage 5. Building a problem tree (Future technology Search).

Stage 6. Algorithm for developing an innovative project based on a selected issue for teamwork.

Informational material on the issues of the business game, features of the external and internal environment of the institution, organization, company, institution, as well as statistical material is offered. To facilitate the development and conduct of the game, as well as the learning of the rules by the participants, despite the conditions of teamwork, it is desirable to focus each package of documents on a specific player.

The game should reflect the most significant factors of the educational institution's work, well-thought-out incentives to ensure the involvement of participants. The game procedure provides

for repeated feedback after each stage with the performance of the team members. It reproduces the development of the system as a result of the decision made and clearly differentiates the participants.

The game has a clear sequence of actions, is dramatized by the creation of a certain tension and the problem of the effective existence of the organization in the external environment in the conditions of external competition.

5.5 MEANS OF COLLECTING PROPOSALS FROM EMPLOYEES IN THE IDEA MANAGEMENT SYSTEM

The key resources of any organization are employees and their competencies – those that are used according to functional tasks, and those that are hidden, not actualized. Functional and potential knowledge, abilities and skills are assets that must be systematically managed to increase the effectiveness of the organization's development. Today, the greatest achievements in the development of organizations, institutions, and institutions are associated not with technological, but rather with organizational and management innovations, as evidenced by such new paradigms as "open innovation" and "global sourcing" (sourcing). In particular, the paradigm of "open innovation" allows to attract unique intra-organizational knowledge and experience and combine it with external information to the advantage of each individual institution, as this will reduce the time to implement a large number of innovations.

The opinion of Kenneth Rosenfeld and Jenny Servo – consultants on innovation management of the Kodak company (1984) is quite well-known that the failure of large corporations to use innovative ideas is mainly due to the lack of an internal communication system, rather than to a decline in the ingenuity of employees. A tool that, in our opinion, is not used today for the development of organizations, institutions, and institutions is the idea management system.

Features of "intellectual management" are revealed by Aleksey Eremin; stages of the idea management process – Nikolay Sushko, Dmitriy Homutskiy; Ruslan Dolzhenko, Konstantin Ozerov, Azat Sadriev, Nataliia Sas, Yuriy Smirnov reveal separate means of collecting ideas in the organization, the experience of their use. The issue of means of collecting proposals from employees in the idea management system is of interest.

According to the theory of intellectual systems, Aleksey Eremin proposes to introduce the concept of "intellectual management" (management of the macro-society and its subsystems: nano-, micro-, millisocieties), the features of which are the realization of characteristics and functions characteristic of intellectual systems (autonomy, fractality, hierarchy, dissipativeness, heredity and memory, coherence, bipolar asymmetry, synergy). The defining feature of the intellectual approach, in contrast to the systemic and situational approach, is the consideration of features characteristic only for intellectual systems – "intellectual reflection" and "informational instinct", which form the dominant intellectual systems with their objective advantage – a better ability to adapt to the environment, due to the property of active reflection of objective reality. The goals

of a person, nano-, micro-, millisocieties can contribute to the formation of a strategy of behavior and management [45].

The idea management system, according to Nikolay Sushko, consists of the following stages: collection of ideas; rating; refinement; implementation [48].

Dmitriy Homutskiy imagines the process of managing ideas as follows:

– the birth of an idea;

– formation of the primary pool;

– development and enrichment of the idea;

– management assessment;

– selection of business ideas that have practical value for a specific organization [49].

In our opinion, the full cycle of idea management looks like this:

– the birth of an idea;

– formation of the primary pool;

– development and enrichment of the idea;

– management assessment;

– selection of business ideas that have practical value for a specific organization;

– refinement;

– implementation.

It is clear that each stage, in turn, can be decomposed and instrumented according to the specifics of the organization, institution, institution.

The main thing that the system of receiving and evaluating ideas will give to the organization, institution, institution is directly the proposals themselves. The ideas of employees to improve the work of the organization, institution, institution will allow to improve technological and marketing processes, and introduce innovations. In addition, working with ideas is important for employee motivation (employees understand that management listens to their opinion; a system of possible bonuses for authors of supported ideas will stimulate employee creativity).

In our opinion, the conditions for the success of the idea management system are as follows:

– mutual recognition of the capabilities and contributions of each employee;

– free expression of one's own opinion by each employee without fear of being punished, exchange of ideas without obstacles within the organization (between top leaders, managers, employees, consumers, partners and suppliers);

– use of various communication systems for informal communication (constant meetings, exchange of messages, thoughts, considerations);

– management of ideas is clearly managed, but not programmed, it arises on the basis of a common interest or a topic that unites people and determines their desire to actively contribute to their development.

In any idea management system, the means of their collection are important. The most used are the "box for ideas and suggestions"; kaizen – proposals; automated means. In the pre-digital era, suggestions were collected using an "idea and suggestion box" in which the author placed

an idea laid out on paper. Such boxes were located in each division (department or workshop) of the enterprise.

Using the box of ideas as a means of collecting them revealed the following limitations (the very principle of such a system is not transparent):

– the author cannot follow the full cycle of consideration of an idea (ideas can be lost or stolen, it is difficult to analyze their flow, it is difficult to give feedback to the authors);

– the effectiveness of the procedures for selection and examination of employee proposals began to decrease more and more due to the increasing complexity of ensuring objectivity and competence in their implementation;

– the proposal box was deprived of the possibility of public discussion of ideas by the entire company team and their prompt implementation by individual interested employees;

– the lack of information about the results of the assessment and the implementation of the proposed proposals affected the motivation of the authors' further creative activity.

In the system of kaizen proposals, the main emphasis is not on individual creativity, but on collective work within the framework of continuous improvement teams (so-called "quality circles", which unite employees of individual units in informal groups). The disadvantage of such a means of gathering ideas and suggestions is the difficulty of using them for the development of major product innovations. However, this shortcoming is overcome in the process of creating special venture teams and idea incubators, whose professional participants are clearly focused on the search for promising, first of all, breakthrough ideas in the organization, their implementation as soon as possible and the promotion of the obtained results to the market [49].

The growing complexity of managing ideas in companies led to the emergence and wide distribution of special software products [50]. All the variety of these software products can be divided into four main groups.

The first group unites programs of centralized automated systems such as: "exchange of ideas", "single window of innovations", "information incubator of innovative ideas". It allows all employees to register as acquirers, independent experts, submit proposals without sending a package of documents on paper, send proposals for examination, monitor the current state of the proposal [51]. The specificity of these programs, which consists in the fact that their use is carried out in the mode of remote access, during which the user, without physically owning the program, can implement only its functionality, refers these programs to the number of so-called "Cloud Services".

The second group combines programs based on the use of the social rating method, which involves public discussion of submitted proposals, their evaluation and ranking depending on the results of the voting. The capabilities of the programs of this group allow you to single out the most important and interesting ideas and, giving them the appropriate rating, make their implementation a higher priority.

The third group of programs is based on the selection of ideas with the help of trading on the so-called prediction markets, designed to create forecasts of various topics and obtain informa-

tion based on them about, for example, changes in consumer values and market expectations. The general ideology of building software that works with prediction markets is to develop a resource with the help of which participants' bets are accepted regarding the occurrence of this or that event [45].

The fourth group of programs work as innovative platforms that provide their users with access to functions for organizing brainstorming, holding meetings, meetings of closed groups, access to various databases, etc.

Important, in our opinion, is Nikolay Sushko's conclusion that when using a business process management system (in which the management of ideas itself becomes one of the company's business processes), a separate product for managing ideas becomes unnecessary. Any employee can easily offer something. The initiator simply submits an application, it automatically goes to the manager or employee responsible for analyzing ideas. At the stage of collection, the idea can also be clarified if some nuances are unclear [48].

Information systems for idea management – software products that allow employees to make suggestions and management to systematically receive and work with them – are much easier to use. However, they are not without limiting characteristics. In particular, not all employees have access to a computer; not everyone has electronic programs for creating drawings or diagrams with detailed explanations. This requires additional training of personnel [50].

The analysis of the experience of using the considered means of collecting ideas made it possible to identify a number of factors that prevent the active involvement of employees in the innovation process (regardless of the means of collecting ideas).

They include:

– low awareness of employees;
– complex application submission and processing procedure;
– a long period of consideration of applications;
– lack of access to professional consultations;
– fear of refusal to consider applications, fear of criticism;
– low involvement of business units at the stage of selection and evaluation of offers;
– insufficient motivation of employees to implement innovations;
– insufficient level of innovative culture at the enterprise, organization, institution;
– lack of an effective control mechanism for the implementation of proposals;
– difficulties in assessing the economic effect of innovations.

CONCLUSIONS

Thus, the authors substantiated the relevance of the given topic, defined the concept of the phenomenon of *receptivity to the new* as the ability of an individual to perceive the signs of the new (future) and to be guided by the formed idea (consciously or unconsciously) in its practical activity;

as the degree of relative advance by the individual of other members of its social system in the perception of new ideas, phenomena, discoveries that will determine the future.

The classification features were singled out and the author's classification of receptivity to the new was concluded. The divisive (generic) concepts of the classification of the definition of *receptivity to the new* are defined as follows:

– form of knowledge of reality;
– leading aspects of the perceived object;
– dominant feelings;
– field of activity;
– components of the subject's experience;
– cognitive-emotional processes;
– environment of selected information;
– hierarchical level of the management entity.

The following features of a personality receptive to the new are presented:

– an active attitude to the future, "attraction of the future factor";
– a critical attitude to the past, which "takes" with it everything that contributes to the exit from the crisis, further development;
– flexibility and mobility, readiness to take risks;
– ability to self-organize;
– ability to change in response to external challenges.

Individual and group receptivity to the new and means of their development are characterized; creation of an internal organizational climate stimulating the development of receptivity to the new.

We see a perspective in further clarification of classification features, characteristics of typologies of receptivity to the new, research of factors that promote or inhibit the development of receptivity to the new. Among the promising tasks are the research of issues related to the development of receptivity to the new, the development of diagnostic tools and conducting experimental work.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest in relation to this research, whether financial, personal, authorship or otherwise, that could affect the research and its results presented in this paper.

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LIFELONG LEARNING: MODELS AND METHODS OF IMPLEMENTATION

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Leandro Rafael Pinto, Ruslana Velychko, Mariia Tkachenko

Collective monograph

Technical editor I. Prudius
Desktop publishing T. Serhiienko

PC TECHNOLOGY CENTER
Published in April 2023
Enlisting the subject of publishing No. 4452 – 10.12.2012
Address: Shatylova dacha str., 4, Kharkiv, Ukraine, 61165
