TRANSFORMATION PROCESSES IN NON-FORMAL EDUCATION: A PROJECT OF INTERREGIONAL COOPERATION OF THE UKRAINIAN OPEN UNIVERSITY OF POSTGRADUATE EDUCATION

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Abstract: In the context of reforming the Ukrainian educational system and integration of Ukraine into the European educational space, the need for the development and implementation of modern approaches to the organization of educational institutions of different levels is actualizing. The principles of non-formal education are revealed through a project of interregional cooperation for professional development of teachers. The project is considered as a form of social interaction based on openness, accessibility, horizontal ties and attitudes, during which a community of progressives educators is formed. They are able to respond to modern challenges and radically change educational approaches to their own learning and their professional mission. The results of the first diagnostic stage of the project of interregional cooperation on professional development of teachers are presented.

Keywords: Adult education; non-formal education; postgraduate pedagogical education; distance education; pedagogical workers.

1 Introduction

Education as a phenomenon is the result of changes in socio-economic development, and at the time is both the initiator and stimulator of these changes in various spheres of life. The course of the COVID-19 pandemic revealed a set of problems in the education system in Ukraine, exposed the sharp contradictions in the professional development of teachers, namely:

- despite a long period (over 20 years) of training teachers for the introduction of information technology it failed to provide full distance learning of students;
- urgent restructuring of the institutions to which the in-service training of teachers has been delegated has shown a lack of readiness to respond to societal challenges.

These contradictions determine the need for the development of adult education in the format of open education.

We are witnessing how modern society is losing the properties of stability, balance and stability demonstrates nonlinear tendencies in conditions when virtual reality becomes a space of socialization of an individual (Vlasenko, 2014). Global change is evolving at an extraordinary rate, so traditional strategies for building educational activities do not meet the challenges of such a contradictory time. In order to respond effectively and in a timely manner to changes in society, we need new knowledge, new theoretical attitudes, and ideas, a new modern methodology of education, that would correspond in a complex to the level of modern human development.

From the plurality of real objects we focus on the inconsistency of the traditional content of the professionalism of the teacher, formed on the verge of the XX-XXI centuries, the requirements of the information society. Therefore, we highlight the possibility of developing a modern project of interregional cooperation for the professional development of teachers in the system of informal education of adults, based on the requirements of education customers for the prospect of social transformations. The project must take into account the laws of dialectics, according to which new knowledge contradicts outdated forms of its translation in professional activities and, despite the traditionally established indicators, determines the entry into a new plane of solving problems on the quality of education at all levels, based on synergetic approach, theory open systems, educational management.

2 Literature review

The general nature and dynamism of nonlinear worldviews are faced in the duel with the traditional thinking of most educators who continue to profess a linear approach, in particular, in the system of postgraduate education (Kyrychenko, 2017). Since the need for nonlinear methodological attitudes depends on the level of development and goals of cognition, and with the discovery of complex and evolutionarily unstable systems the general scientific nature of the nonlinear educational paradigm is realized, thus the general nature and dynamics of nonlinear worldview in modern science are associated primarily with the theory of self-organization and based on this worldview (Snehir′ov, 2014).

The philosophical basis and prerequisite for nonlinear processes in education is a synergetic approach, developed on the basis of the term "synergetics" proposed by the German physicist G. Haken (2003). (from the ancient Greek – "joint action"). Thus, we proceed from the fact that the development of modern non-formal adult education is based on a synergetic approach and, according to research by O. V. Vozniuk (2012), is characterized by the following manifestations as openness, distance learning throughout life, integrity.

George Siemens (2005), as the founder of the theory of connectivism, expressed the idea that learning in the modern world should change significantly because the old theories (behaviorism, cognitivism, constructivism) were developed in the "pre-technological" era, therefore, in the modern world, many students will move in different, possibly interconnected, fields of knowledge throughout their lives.

Researchers believe that informal learning is a more widely used term than non-formal learning, and is often used to refer to both, and they can also be separated from each other (Pienimäki et al. 2001).

In our study, we consider the possibilities of adult education in the system of non-formal education as a way to go beyond the usual traditional postgraduate education that has prevailed for many years in Ukraine and does not meet modern challenges for professional development of adults, including teachers.

The development of non-formal education is important for our state. Thus, the experience of Lithuania (Zemaitaityte, 2017) can be useful for us, where the development of non-formal adult education is actively taking place, the main functions of which are to provide knowledge and understanding necessary to adapt to constant changes in society, labor market and human life and help adults choose the education that best meets their needs and gives them a choice.

Non-formal learning is an important aspect of our experience (Barton et al. 2021), and formal education does not include all learning experiences because learning is a continuous process that lasts a lifetime; learning, activity and work are now closely interlinked; "know-how" and "know-what" are now supplemented by the concept of "know-where" (understanding where to find the necessary knowledge) (Kartashova et al. 2020). In particular, these theses are the basis of distance education, where each teacher has the opportunity to access advanced training courses, study remotely in a convenient place and at a convenient time.
In our study, we relied on the theoretical developments of researchers (Hallinger, & Kovačević, 2019; Castillo, & Hallinger, 2018) in the field of education management and used their experience in developing a project of interregional cooperation to improve the skills of teachers. Attempts have been made to model the individual educational trajectories of customers of educational services on the basis of educational profiles to improve the skills of teachers (Crouch, Kaffenberger, 2021).

Studying the educational systems of the European Union, S. Sysoyeva and T. Krystopchuk (Sysoyeva, & Krystopchuk, 2012)

note that postgraduate education in the European Union, in particular, Bulgaria, Poland, Romania, Slovakia, Slovenia, Hungary, the Czech Republic, covers a wide range of problems: from professional development to work in various fields, for professional training, retraining and advanced training of the temporary unemployed. Postgraduate education in Spain is an additional 2-3 years of study (in some higher education institutions more). We emphasize the existence of two opposite trends. On the one hand, both the Bologna Process and the Copenhagen Declaration of European Countries provide for the creation of European education with uniform principles and requirements for the unification of educational structures in these countries. On the other hand, the strategy and decisions are based on the real experience, traditions and potential of the educational systems of the European Union, and unification does not deprive them of their national identity.

In the conditions of open education there are actual systems of management of training on the basis of information technologies – LMS (Learning Management Systems). On this basis, the Ukrainian Open University of Postgraduate Education was created (UOUPE, 2021). LMS is used to develop and disseminate educational materials and work with them in the educational process. The components of the LMS are individual tasks, tests of various types, initial projects for work in small groups, a variety of text and multimedia manuals that provide the formation of an individual trajectory during training (UOUPE, 2021). Access to them, subject to open education, should be free not only for representatives of the institution, but also for representatives from different regions (Kartashova, 2020; Prenger et al. 2019).

The purpose of the research is to reveal the principles of non-formal education on the example Ukrainian Open University of Postgraduate Education. The task of the research is to develop a project of interregional cooperation for professional development of pedagogical workers on the basis of project-transforming nonlinear paradigm and reflexive-positional approach. And present the results of the first diagnostic stage of the project of interregional cooperation on professional development of teachers are presented.

2 Materials and research methods

The pedagogical research under consideration is carried out within the framework of research work of the Department of Philosophy and Adult Education of the Central Institute of Postgraduate Education (CIPE) of the State Institution of Higher Education "University of Educational Management" (SIHE "UEM") of the National Academy of Pedagogical Sciences of Ukraine "Transformation of professional development of pedagogical and scientific-pedagogical workers in the conditions of open university of postgraduate education" (state registration number 0120 U104637) (2020–2025). To implement the diagnostic stage of the project of interregional cooperation "UOUPE", which took place from 01.01.2020 to 31.12.2020, were conducted studies and analyses of the literature, regulations on the problem of teacher training in the context of non-formal education; diagnostics of teachers and identification of problems in the process of professional development of teachers in the conditions of "UOUPE".

We used methods analysis and synthesis – for the purpose of complex study of organizational and managerial, psychological and pedagogical, scientific and methodological factors of professional development of teachers as consumers of educational services in an open university; content analysis of legal documents in the field of adult education, continuing pedagogical education, educational and scientific-methodological support of professional development of teachers as consumers of educational services; SWOT-analysis of existing systems of professional development of teachers as consumers of educational services, clarification of positive and negative aspects of non-formal education, achievements and shortcomings in the learning environment; psychological and pedagogical diagnostics (interview, survey, questionnaire, testing).

3 Results and discussion

At the theoretical and declarative level the andragogical model of adult learning has been developed and implemented for several decades, at the level of practical implementation, the approach of information cramming continues to dominate, without identifying and taking into account the practical needs of adults. In response to the mentioned above social challenges, the

Ukrainian Open University of Postgraduate Education (hereinafter "UOUPE") is the first self-governing (autonomous) educational institution type of a distributed university in Ukraine (UOUPE, 2021). Nowadays, the relevant and demanded by the pedagogical community purpose is opening the possibility of having access to refresher courses for those who wish to learn remotely in a convenient place and at a convenient time.

The University, on the basis of interaction of formal, non-formal, and informal education, provides: bringing the content of postgraduate and adult education in line with European educational standards and digitalization of society; modernization of educational infrastructure; development of educational and methodological support for the activities of postgraduate education institutions; introduction of innovative approaches to the continuous development of the specialist's personality (UOUPE, 2021).

In particular: the university has the resources to serve an unlimited number of students regardless of their place of residence; virtual departments accumulate participation in the educational process of scientists and practitioners of different fields of knowledge, different educational institutions; distance learning is accessible to all and provided with modern information support; personal account allows anyone to become a registered listener and choose a personal training profile; the student can monitor the process of their own development in the educational environment, has the opportunity to use innovative author's electronic resources developed by teachers and scientists of university departments; continuous development of professional competencies is provided (Kyrychenko et al 2020).

The project of interregional cooperation is developed as a form of social interaction based on openness, accessibility, horizontal connections, and attitudes, during which a community of progressive educators able to respond to modern challenges and radically change educational approaches to their own learning and professional mission is formed. The project is implemented on the basis of effective communication processes, diversification of educational activities, community design, coordinated teamwork. Designing various cases for the implementation of individual trajectories and the implementation of technology scientific and methodological accompaniment provides support for the subjective activities of teachers, promotes the formation of new professional behavior. The individual trajectory merges in the process of interaction of all project participants and grows to a new level (Sorochan et al. 2013).

The stages of the project and the terms of their implementation are presented in the previous work (Kyrychenko et al. 2021).

The trajectory of creating open information content "UOUPE" is built with the following principles of open education:

openness and accessibility: "UOUPE" open information content has opportunities to attract customers of educational services of the general public, including key stakeholders; the ability to interact and communicate off-line (educational environment "UOUPE" (UOUPE, 2021)) and on-line (BBB, chats educational environment);

flexibility and adaptability: opportunities to adapt to changing environmental conditions (including in the context of the coronavirus disease 2019 (COVID-19), to significant educational transformations (distance education, online education); flexible educational system (freedom of choice of forms and content of education, depth and scope of the program of advanced training of educational services, duration and pace of education);

globalization: free functioning in the world educational community of non-formal education ("UOUPE");

economic efficiency and competitiveness among price proposals: the educational result is achieved with less, compared to traditional training, time, money; economic supply is competitive in the market of educational services.

The essence of the organization of activities within the project of interregional cooperation is presented by us in the form of a model (see fig. 1). The umbrella model covers and unites the main segments

of the interregional cooperation project: problem-based, managerial-organizational, design-constructive, result-reflective.
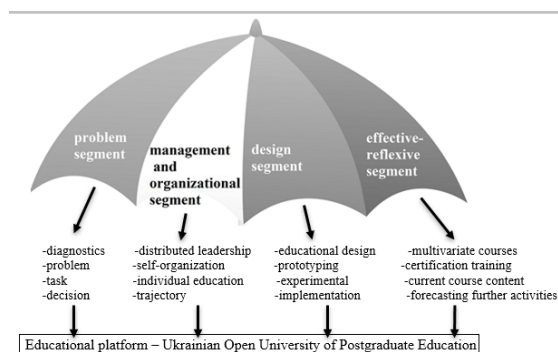

Figure 1 – Model of organization of interregional cooperation in "UOUPE"
Source: Developed by the authors

Perhaps this indicates that educators do not have the means that are already available to them. As an example, we can cite the situation with distance learning: all the means to implement online learning were available, but only in a pandemic was there a willingness to master these necessary tools. However, sometimes it may happen that the teacher does not have or does not have the means to implement a problem, then you need to organize innovative work and introduce innovations.

We conducted a SWOT-analysis of existing systems of professional development of teachers as consumers of educational services to clarify the positive and negative aspects of learning conditions in non-formal education as well as achievements and shortcomings. The SWOT-allows to look at professional development in non-formal education comprehensively, analyzing external and internal factors, and further generate strategic alternatives that combine the factors identified in the previous stage.

SWOT-analysis was conducted in several successive stages: collection of analytical information; analysis of internal and external factors, identification of strengths and weaknesses; comparison of strengths and weaknesses and external factors; identifying key actions relevant to opportunities, threats and weaknesses. The time of their implementation was distributed, as well as those responsible for the implementation and implementation period. The shortcomings of the SWOT-analysis, namely the subjectivity of the indicators, were taken into account when compiling the analysis. It should be noted that the comprehensive assessment was conducted not by one person, but by a group of experts and the entire team of authors of the article,

as group discussions, exchange of ideas provide an opportunity to make the analysis more accurate and in-depth.
A total of 80 respondents were involved in the study, which was divided into four focus groups of 20 respondents each. And the fifth group – a group of experts, which involved 3 representatives from each of the four focus groups, analyzed the factors and assessed the correspondence in points for each factor. Among the participants of the focus groups, heads of educational institutions and pedagogical workers were evenly represented from different cities of Ukraine, namely: Lviv, Odessa, Kharkiv, Mykolayiv.

By gender, the study participants were:
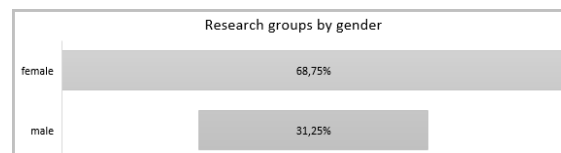female – 55 (68,75%);
male – 25 people (31,25%) (see fig. 2).

Figure 2 – Gender of study participants
Source: Developed by the authors

In terms of age, they belong to 4 groups (see fig. 3):
up to 35 years – 12 (15,0%);
36–50 years – 35 (43,75%);
51–60 years – 20 (25,0%);
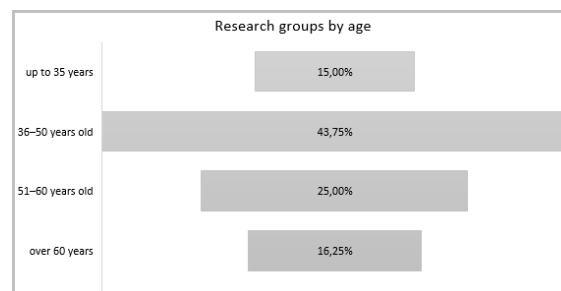over 60 years – 13 (16,25%).

Figure 3 – Age of researched pedagogical workers
Source: Developed by the authors

A questionnaire was compiled for the work, which included questions for the analysis of external and internal factors of the conditions of professional development of teachers in non-formal education. SWOT-analysis is represented by two matrices. The first matrix of the primary SWOT-analysis consisted of generalized results of the work of four groups (Table 1).

Table 1 – Primary SWOT analysis matrix

	S – Strengths	W – Weaknesses	
Internal factors	Individual motivation, lack of coercion Meets the request of listeners Efficiency Choice The opinion and desire of the consumer of educational services are taken into account directly Applied basis and high practical efficiency Opportunity to study at a convenient time	Lack of platforms that would combine different forms of non-formal education The discrepancy is legislative, is the problem with the confirmation of the certificate Insufficient funding. There is no clear plan and strategy for the educational process Not all self-organized institutions provide quality content There is no accreditation system for courses, trainings, lectures	External factors
	O – Opportunities	T – Threats	
	Ability to master new forms and information according to your own requests Ability to compare, look at the problem from another angle, look for creative content Improve where you want It is now possible to become a participant in online trainings, conferences, workshops without being tied to a specific place Creating a global human education strategy	Opportunity to attend training, the results of which will not be recognized during the certification Additional funds are needed for training Unregulated requirements for the provision of services, as not all self-organized institutions provide quality content	

Source: Developed by the authors

To work on the matrix of the primary SWOT-analysis, a questionnaire was compiled, which contained questions for the analysis of external and internal factors of the conditions of professional development of teachers in non-formal education, which consisted of the following questions:

S – Strengths: What is the constructive advantage of non-formal education? What are the advantages of non-formal education over formal? What do you like about learning in non-formal education?

W – Weaknesses: What shortcomings do you see in learning in the non-formal education system? In what formal education is better? What can be improved in the non-formal education system?

O – Opportunities: What new opportunities are opening up for you in non-formal education? What new global educational trends can positively influence the development of non-formal education?

T – Threats: Can a pandemic negatively affect the development of non-formal education? Did you spend more of your own money on advanced training? Are providers of educational services in the non-formal education system reliable enough?

The fifth focus group – an expert, analyzed the factors and assessed the correspondence in points for each factor. Quantitative evaluation (used from 1-4, where 1 is the smallest value and 4 is the largest value). Based on the work of experts, we selected the factors that appear to respondents as the most important, reflected in high scores (in parentheses shows the total number of points scored by these factors according to experts), based on this study we comprehensively assessed opportunities and threats and weaknesses: where 0 – there is no connection between the factors; 1 – weak connection; 2 – moderate connection; 3 – strong connection (Table 2). During this analysis, possible synergies (mutual influence) between the components of the professional development system in the context of non-formal education were identified. The high assessment indicates a strong impact of the component matrix on the overall system of activities within the project.

Table 2 – Comprehensive assessment of opportunities and threats, taking into account strengths and weaknesses

Internal environment	Environment	Opportunities (O)			Threats (T)		
		O_1 Ability to master new forms and information on according to your own requests (48 p)	O_2 It is now possible to participate in online trainings, conferences, workshops without reference to a specific place (45 p)	O_3 Creating a global education strategy (42 p)	T_1 Opportunity to get on training, the results of which will not be recognized during the certification (48 p)	T_2 Additional funds needed for training (48 p)	T_3 Unregulated requirements for the provision of services, as not all self-organized
Strengths (S)	S_1 Individual motivation, lack of coercion (48 p)	3	3	3	0	0	2
	S_2 Efficiency (48 p)	3	3	3	0	0	0
	S_3 Applied basis and high practical efficiency (48 p)	3	1	1	0	0	1
Weaknesses (W)	W_1 Lack of platforms that would combine different forms of non-formal education (45 p)	0	0	3	1	0	2
	W_2 Not all self-organized institutions provide quality content (47 p)	0	0	1	0	0	3
	W_3 There is no accreditation system for courses, trainings, lectures (45 p)	0	0	1	1	0	0

Source: Developed by the authors

Next, after the analysis of factors, which was compiled by the second matrix TOWS – the final stage of SWOT-analysis based on the developments of Heinz Weihrich (1982). Thus, at the intersection of internal and external factors, one can find answers to strategic questions (Table 3).

Table 3 – TOWS matrix

	O (O1, O2, …, On)	T (T1, T2, …, Tn)
W (W1, W2, …, Wn)	**WO** What weaknesses hinder the use of emerging opportunities? The global trend – deepening interstate cooperation in education, creating a global strategy for human education, regardless of place of residence, educational level – these new opportunities can be used in our country, but may be hindered in particular by the lack of a single platform where everyone providers of educational services could submit their educational proposals, which would allow to see a holistic picture of possible options for qualification and professional development.	**WT** What are the biggest risks with identified weaknesses? One of the main risks is low-quality educational content against the background of unregulated requirements for educational service providers. There is a significant danger in the freedom gained in the field of professional development – populist curricula appear, which do not provide the necessary quality academic level.
S (S1, S2, …, Sn)	**SO** How to use opportunities based on strengths? With a high level of motivation for self-development today it is easy to choose the desired forms and content of training. Enhancing the quality of online education makes it possible to choose the necessary courses (training, webinars and other forms) regardless of place of residence.	**ST** How to neutralize risks using strengths? Strengths do not adequately adjust the risks raised during focus group discussions. But the self-awareness and intrinsic motivation of customers of educational services is a driving force in maintaining quality products and a powerful force in the fight against poor educational content and low levels of teaching.

Source: Developed by the authors

Thus, based on the SWOT-analysis and analyzing the positive and negative aspects of teacher training in non-formal education, we can conclude that the future development of our project of interregional cooperation for professional development of teachers is possible provided freedom selection of models of refresher courses for teachers, development of the content of courses by scientists on an innovative basis to ensure the quality of educational content and continuous professional andragogical support.

To build a personal trajectory of professional development, it is important to help teachers to understand individual needs and formulate personal challenges based on reflection on experience, psychophysiological and cognitive manifestations of personality.

Management and organizational segment of the interregional cooperation project. One of the modern theories of leadership – distributed leadership – is relevant for project management of interregional cooperation. D. L. Bradford and A. R. Cohen (Bradford, Cohen, 1998), the developers of the theory of "distributed" leadership, see the essence of this approach in the fact that in the group that implements the project, it is not necessary to have one, permanent, leader. The project is usually divided into several stages, and each stage requires a certain competence. According to the theory of D. L. Bradford and A. R. Cohen, the most competent individual, becomes a temporary leader, including a coordinator of the group. Upon completion of a specific phase of the project, this interim leader gives way to another member of the group with the competencies that are most relevant to the next phase. In this case, each leader himself becomes subordinate. This process continues until the project is fully implemented. As our experience of professional training of teachers shows, in different regions the leaders are usually representatives of postgraduate education institutions or Centers for Professional Development of Teachers, who know the situation in the region as well as possible.

It is important to single out as a key principle of project implementation – the principle of co-organization. The project unites educators on the basis of common values and meanings of innovation, the vision of holistic approaches to further effective steps in the project and, of course, in the process of co-organization creates conditions for the individual educational trajectory of each project participant. Thus, it is a dynamic system, the feature of which is the process of co-organization, which is achieved through informal cooperation, when all participants take balanced, purposeful, consistent steps together with the initiators of the project to achieve the projected personally significant goal.

The change of traditional forms of professional development of specialists of educational organizations is due to the influence of innovations in the system of non-formal education, which are designed to increase the effectiveness of professional development of specialists in accordance with individual requests. Research of such innovative influence of non-formal education on the activity of specialists of educational organizations is one of the priority directions of our research. Fundamentally new educational transformations in the paradigmatic system of formal and non-formal education are due to the need to respond to trends related to the orientation of the education system and the needs and demands of society. Therefore, alternative informal models of professional development of specialists model the innovation structure, propose a change in the functions of mentors of educational projects, offer new methods and technologies of adult learning and involve educators in effective innovative types of professional development in non-formal education.

In accordance with the diagnostic phase of the project (which took place during 2020), a study was conducted to identify problems and difficulties in the process of professional development of teachers as consumers of educational services in the conditions of "UOUPE".

The work of specialists of educational organizations in the conditions of social transformations should be aimed at the application of qualification and personal-professional characteristics necessary for the fulfillment of a certain social role in the educational organization (Perevozova et al. 2020). Therefore, in order to act rationally and effectively in the conditions of change, the availability of competencies and skills to carry out effective activities are professionally necessary components of teachers. Pedagogical and scientific-pedagogical workers are expected to carry out their activities in such manifestations – specialists in the field, as active subjects of the educational organization, as members of a single team, as performers of social roles. On the other hand, taking into account the factors of these manifestations, in our opinion, it is important to study the self-assessment of professional and pedagogical motivation in non-formal education. Among the criteria for determining the self-assessment of professional and pedagogical motivation were identified as follows: socio-professional involvement, professional interaction in professional social communities, professional adaptation to change, professional stress, professional retraining in connection with reforming the methodological service, changes in professional communication in the context of digitalization of society, increasing the workload.

A comprehensive questionnaire was used to determine the self-assessment of professional and pedagogical motivation of teachers, namely, a modified version of the questionnaire M. P. Fetiskin "Self-assessment of professional and pedagogical motivation" was developed. The survey was attended by 123 pedagogical workers (employees of methodological services) – potential customers of educational services of the interregional cooperation project for professional development of pedagogical workers. According to the positions, the respondents were divided into two groups: 16,0% were heads of educational organizations, 84,0% – pedagogical and scientific-pedagogical workers (Table 4, see fig. 4).

Table 4 – Characteristics of the sample of researched pedagogical workers

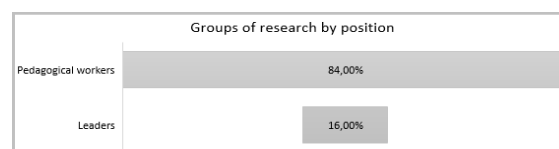| Groups of research by position	Number	Percentage
Leaders	20	16,0%
Pedagogical workers	103	84,0%
Total	123	100,0%

Source: Developed by the authors

Figure 4 – Sample of researched pedagogical workers
Source: Developed by the authors

In terms of age, they belong to 5 groups (see fig. 5):
up to 30 years – 18,7%;
31–40 years old – 55,3%;
41–50 years old – 14,6%;
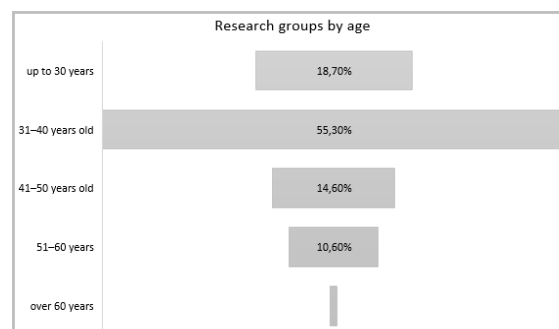51–60 years – 10,6;
over 60 years – 0,8%.

Figure 5 – Age of pedagogical workers
Source: Developed by the authors

By gender, the study participants were (see fig. 6):
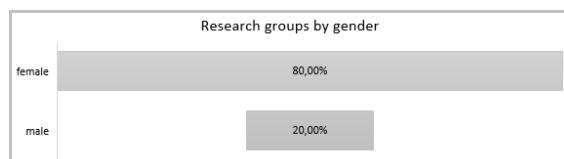female – 80,0%;
male – 20,0%.

Figure 6 – Gender of study participants
Source: Developed by the authors

The analysis of the results of the socio-psychological survey of teachers allowed to determine their assessment of the state of self-assessment of professional and pedagogical motivation (Table 5).

Table 5 – Analysis of the results of the survey of teachers

Criteria	Positive changes,%	Undefined changes,%	No change, %	Negative changes, %
Socio-professional involvement (participation in non-formal education projects)	52,9	19,0	15,7	12,4
Professional adaptation in the conditions of innovative changes	4,2	67,5	10,0	18,3
Increased manifestations of occupational stress	8,3	47,1	6,6	38,0
Increasing the workload	14,2	38,5	4,0	43,3
Professional interaction in variable social communities	40,0	12,5	40,8	6,7
Changes in professional communication in the context of digitalization of society	56,2	33,1	3,3	7,4
Professional retraining in connection with the reform of the methodological service system	36,7	30,0	22,5	10,8

Source: Developed by the authors

Based on the analysis of the results of socio-psychological survey of teachers found that within the criterion of "socio-professional involvement," 52,9% of respondents are constantly involved in the interaction of professional experience among the educational community (webinars, social networks and messengers by professional interests); 19,0% – were undecided with the changes; 15.7% of respondents did not change and 12,4% – determined that the changes were negative. The factor of socio-professional involvement in the period of change affects the improvement of both psychological and emotional state of educators and increase opportunities to meet the various professional needs of professionals in the field of experience exchange and professional socialization (especially important in today's reform of methodological service development of pedagogical workers – for future consultants of these centers).

We define professional socialization as a process of professional development of a person, which involves gaining professional experience through the acquisition and active reproduction of professional knowledge, skills, abilities, norms, values, patterns of behavior that are necessary for professional activity in educational transformations. Among the answers on socio-professional involvement prevailed: independent search and self-educational activities in the field of specialized pedagogical literature on the introduction of modern educational technologies (both professional periodicals and registration on specialized educational platforms, etc.).

To analyze the criterion of "professional adaptation in terms of innovative change" it was appropriate to update the procedural theory of motivation of S. Adams, developed in the 60s of the twentieth century, which is called "theory of justice". According to this theory, teachers, engaging in professional activities in terms of modernization and educational change, evaluate this situation from two positions: personal contribution to the professional activities of the organization and reward for personal contribution to the common cause compared to reward for similar work of other employees. Thus, 18,3% of respondents indicate negative changes in terms of adaptation to new educational changes and a sense of injustice leads to the emergence of psychological stress in teachers. In trying to get rid of it, the teacher can act as follows: vary their labor contribution, trying to achieve justice; change the level of own income due to additional income outside the educational institution; to re-evaluate the cost-benefit ratio; to influence the pedagogical worker, who is the personification of the standard for comparison; choose another representative of the organization for comparison; to resign from the educational organization. Each of these factors can manifest itself in one way or another in terms of professional adaptation to innovative changes in the organization. For example, "influencing the benchmark" and "choosing another person to compare" correspond to the mechanism of group resistance to change, when the teaching staff expresses dissatisfaction with those of its members who are too active in innovating in the organization. Only 4,2% of respondents consider their professional adaptation comfortable in the conditions of innovative changes, which indicates a low personal readiness for flexibility and adaptability in conditions of uncertainty. 67,5% of respondents were undecided with changes, and 10,0% had no changes at all.

Within the criterion of "increasing the manifestations of occupational stress", a significant part of respondents consider the negative consequences of the introduction of changes in the field of methodological service increase the workload and manifestations of occupational stress (38,0%). The increase in workload is associated with: increasing the volume of work on the formation of content and the search and mastery of modern methodology and opportunities for individual trajectory of professional development of teachers with the introduction of various models of professional development of teachers in formal and non-formal education; strengthening of digitization and digitalization of professional activity (especially this factor affects the self-assessment of professional and pedagogical motivation of the age category – over 60 years). In addition, you have to work at a fairly low salary, insufficient level of social motivation to study, insufficient social security. 8,3% of respondents found positive changes in this, 47,1% were undecided about the changes, and 6,6% did not feel any changes.

The previous criterion is closely related to the criterion of "excessive workload" – 43,3% of respondents state negative changes due to excessive workload, which generally affects the socio-psychological mood of teachers, causing them a state of depression, dissatisfaction and irritability. It should be noted that the project of interregional cooperation for the professional development of teachers provides online psychological chat counseling. Emotional stabilization to stressful conditions involves: the ability to understand the real characteristics of stressful situations; ability to link the results of perception processes with coping strategies; availability of information on the subjective effectiveness of the short-term coping result;

availability of information on long-term criteria of successful adaptation to educational changes (physical, mental, social well-being). In this regard, the project of interregional cooperation for the professional development of teachers is considering possible educational proposals to combat stress – appropriate content for relaxation, concentration, autoregulation of mental states. 14,2% of respondents find positive changes in work, 4,0% do not feel changes, and 38,5% of respondents cannot be determined.

On the other hand, innovative changes have a positive effect on the flexibility and adaptability of another category of educators (age groups up to 30 years and 30-40 years) – the criterion of "professional interaction in diverse social communities" (40,0% of respondents said positive changes), Negative changes felt 6,7% of respondents, 40,8% – no changes, and 12,5% of respondents can not decide.

A significant part of respondents are interested in the problems and experience of other teaching staff; independent solution of professional and pedagogical challenges, using the mechanisms of self-directed work and sources of informal education; participate in various non-formal education projects, taking into account individual needs and requests (without pressure from management, on their own initiative). Such data indicate a willingness to communicate and cooperate in a changing environment. Competence in communication is manifested in the ability to go beyond the existing system and rebuild established relationships for professional self-improvement. Thus, the criterion of "change in professional communication in the context of digitalization of society" allowed to identify positive trends, according to respondents, and transformations in the field of communication – 56,2%, 7,4% – negative changes, 3,3% – did not feel any changes, and 33,1% of respondents did not decide on changes. In the context of digitalization of society, most educators have moved to the format of offline communication, including – messengers, social communities, chats, forums, collaboration on documentation using digital technologies, conducting various events (webinars) using online technology support (Zoom, Skype, BBB and others). Such changes in the perception of communication indicate, on the one hand, an understanding of the effectiveness of high-speed communications, which are carried out using digital technology, rather than solving the same professional tasks live. On the other hand, such trends reduce the effectiveness of direct communication to solve professional problems, because the effect of perception, which is important in direct communication, does not have the same effect in online communication.

The established patterns must be taken into account in the process of developing variable models of professional development of non-formal education of the interregional cooperation project for professional development of teachers in the period of transformational changes. Therefore, the criterion of "professional retraining in connection with the reform of the methodological service system" directly affects the educational needs of customers of educational services and the relevance of the implementation in the field of formal and non-formal education of this project. Thus, among the respondents, 36,7% are motivated to professional development and acquisition of the necessary competencies in connection with educational transformations in general and reforming the system of methodological service in particular. Only 10,8% of respondents see this as a negative change, which indicates cognitive rigidity and unwillingness to innovate. 22,5% of respondents did not feel changes, and 30,0% were undecided.

Thus, it should be noted that the transition to the digital space, exacerbated by the effects of the COVID-19 pandemic, increasing the digitalization of the educational process, its content with the latest information does not reduce the role and importance of socio-professional interaction. This requires new approaches to its organization. However, qualitative changes are seen as insufficient in the activities of pedagogical and scientific-pedagogical workers in the field of social relations. That is why, in our opinion, the data show the need to focus on interactive professional synergies in non-formal education (specialized

forums and chats on the platform "UOUPE", to provide additional social groups in messengers), which is an active link in personal interaction and to enrich professional experience.

In addition, to study the motives of professional and pedagogical activities in terms of innovative changes, we conducted a survey using the developed author's questionnaire for employees of methodological services – future consultants of the Centers for Professional Development of Teachers (CPDT). 73 respondents took part in the survey (Table 6).

Table 6 – Analysis of the results of determining the motives of professional and pedagogical activity

Motive of professional and pedagogical activity	Yes, %	No, %
The desire to realize their professional potential in the face of innovative change	64,4	35,6
The desire to achieve recognition in the professional community	86,7	13,3
Desire to promote the development of educational innovations	71,1	28,9
Desire to provide new educational services to teachers	57,8	42,2
The desire to promote the development of CPDT as an innovative type of educational services	82,2	17,8

Source: Developed by the authors

Therefore, the results of the survey identified the following motives: the desire to realize their professional potential in terms of innovative change (yes – 64,4% of respondents, no – 35,6%), the desire to achieve recognition in the professional community (yes – 86,7%, no – 13,3%), the desire to promote the development of educational innovations (yes – 71,1%, no – 28,9%), the desire to provide new educational services to teachers, in particular, in the Centers for Professional Development of Teachers (57,8% – yes, 42,2% – no), the desire to promote the development of CPDT as an innovative type of educational services (yes – 82,2%, no – 17,8%). Therefore, by regulating educational services for teachers, CPDT counselors will satisfy their social motives, which are important for the pedagogical community. This motive correlates with self-assessment of professional and pedagogical activity. Personal motives, such as the realization of professional opportunities and recognition in the professional community, are no less important, because they directly affect the development of professional self-awareness of professionals.

Thus, based on the state of self-assessment of professional and pedagogical motivation of educators in terms of educational changes and motives of professional and pedagogical activities, the relevance of the interregional cooperation project for professional development of teachers is beyond doubt, as it is competitive in measuring non-formal education: among the offers of educational services offers a competitive educational product that takes into account the individual needs of consumers of educational services and takes into account the needs of interactive professional interaction of educators in distance / online education and necessarily provides psychological online chat counseling to prevent professional stress.

4 Conclusions

Non-formal education provides a real choice of educational strategies and content to meet the needs of adults, is a real educational space for practice-oriented, socially meaningful renewal of professional knowledge.

It is impossible to prepare a manual with ready-made recipes for various pedagogical situations that arise. The present time requires from the pedagogical worker subjective activity in his own professional activity. That is why the development of subjective, personal life position and active independent socio-

cultural responsible activity is emphasized as the most important in the training of pedagogical workers. Non-formal education should provide opportunities – probably to become a modern educational platform – for social and practice-oriented learning for the effective professional development of the teacher's personality.

The project of interregional cooperation for professional development of pedagogical workers on the basis of the project-transforming nonlinear paradigm and the reflexive-positional approach is developed. The project is considered as a form of social interaction based on openness, accessibility, horizontal ties and attitudes, during which a community of progressives educators is formed. They are able to respond to modern challenges and radically change educational approaches to their own learning and their professional mission.

The nonlinear worldview of adult education helps to scientifically comprehend the phenomena in the educational activities of teachers as consumers of educational services that did not fall in the period of stable functioning of the education system in the field of basic research, including such characteristics of modern life as chaos, order, formation. According to our approach, it is the models of professional development in the system of non-formal education that meet the modern challenges of the irrationally arranged world. The synergetic approach allows transforming a sustainable system of postgraduate education into an active, mobile, constantly changing system of formal and informal adult education on the basis of self-organization, nonlinear thinking, creative design of individual professional development, construction of its various vectors according to the needs of the teacher. professional role in social systems.

Based on the results of the first diagnostic stage of the project of interregional cooperation for professional development of teachers, we identified problems and difficulties in the process of professional development of teachers as consumers of educational services in "UOUPE" and comprehensively studied organizational and managerial, psychological and pedagogical, scientific and methodological factors of professional development of teachers as consumers of educational services in the context of non-formal education.

The next stage of our study will be the modeling phase, which will take place during 2021. Based on the obtained results of the diagnostic stage of the study, we plan to theoretically substantiate and experimentally test the technologies and models of professional development of teachers as consumers of educational services in the conditions of "UOUPE" as a center of non-formal education; to present and substantiate the current methods for monitoring the results of professional development of teachers in terms of "UOUPE"; develop in-service training programs for teachers as consumers of educational services in various transformations (special courses, flash courses, etc.).

Acknowledgements

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Primary Paper Section: A

Secondary Paper Section: AM