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# ORGANIZATION OF PEDAGOGICAL INTERACTION IN THE CONDITIONS OF THE INFORMATION AND COMMUNICATION EDUCATIONAL SPACE HIGHER EDUCATION

The problems of modern scientific researches in the aspect of the peculiarities of the use of information and communication educational space in a higher educational institution for the organization of pedagogical interaction are researched. The pedagogical conditions for increasing the efficiency of pedagogical interaction of the participants of the educational process in the conditions of functioning of information and communication educational spaces in the higher educational institution: pedagogical activity of teachers; informational competence of participants in pedagogical interaction; pedagogical monitoring of the quality of professional training of specialists; organization of social and psychological comfort of educational activity. The criteria of the effectiveness of the pedagogical interaction of the participants in the educational process in the conditions of the functioning of the ICLS of the higher educational institution are determined: motivational, cognitive, cooperation, and the corresponding levels of pedagogical interaction efficiency: high, sufficient and low. The results of the pedagogical experiment on the confirmation of the effectiveness of the isolated pedagogical conditions for improving the effectiveness of the organization of pedagogical interaction in the conditions of the functioning of the information and communication educational space of the higher educational institution are presented.

Key words: pedagogical interaction; information and communication educational space; pedagogical conditions; performance criteria.

## Організація педагогічної взаємоді в умовах інформаційно-комунікаційного навчального середовища вищого закладу освіти

**Анотація.** *Досліджено проблематику сучасних наукових розвідок в аспекті особливостей використання інформаційно-комунікаційного навчального середовища вищого освітнього закладу для організації педагогічної взаємодії. Обґрунтовано педагогічні умови підвищення ефективності педагогічної взаємодії учасників навчального процесу в умовах функціонування інформаційно-комунікаційного навчального середовища у вищому закладі освіти: креативність педагогічної діяльності викладачів; інформаційна компетентність учасників педаго-*

*гічної взаємодії; педагогічний моніторинг якості професійної підготовки фахівців; організація соціально-психологічної комфортності навчальної діяльності. Визначено критерії ефективності педагогічної взаємодії учасників освітнього процесу в умовах функціонування ІКНС вищого закладу освіти: мотиваційний, когнітивний, співробітництва, та відповідні рівні ефективності педагогічної взаємодії: високий, достатній та низький. Наведено результати педагогічного експерименту щодо підтвердження ефективності виокремлених педагогічних умов підвищення ефективності організації педагогічної взаємодії в умовах функціонування інформаційно-комунікаційного навчального середовища вищого закладу освіти.*

**Ключові слова:** *педагогічна взаємодія; інформаційно-комунікаційне навчальне середовище; педагогічні умови; критерії ефективності.*

## ОрганИзация педагогИческого взаимодействия в условиях информационно-комуникационной учебной среды высшего учреждения образования

**Аннотация.** *Исследовано проблематику современных научных исследований в аспекте особенностей использования информационно-комуникационной учебной среды высшего образовательного учреждения для организации педагогического взаимодействия. Обоснованы педагогические условия повышения эффективности педагогического взаимодействия учасников ученого процесса в условиях функционирования информационно-комуникационной учебной среды в высшем образовательном учреждении: креативность педагогической деятельности преподавателей; информационная компетентность учасников педагогического взаимодействия; педагогический моніторинг качества профессиональной підготовки специалистов; организация соціально-психологической комфортности учебной деятельности. Определены критерии эффективности педагогического взаимодействия участников образовательного процесса в условиях ИКУС высшего образовательного учреждения: мотивационный, когнитивный, сотрудничества, и соответствующие урони эффективности педагогического взаимодействия: високий, достаточный и низкий. Приведены результаты педагогического эксперимента относительно подтверждения эффективности выделения педагогических условий повышения эффективности педагогического взаимодействия учасников ученого процесса в условиях функционирования информационно-комуникационной учебной среды высшего образовательного учреждения.*

**Ключевые слова:** *педагогическое взаимодействие; информационно-комуникационная учебная середа; педагогические условия; критерии эффективности.*

## 1. Introduction

**Formulation of the problem.** A fast-moving world needs a modernization of educational processes in a higher education. So, it is necessary to create the latest tools for the accumulation, processing and transfer of educational information through information channels. It is very important to develop and applicant of modern learning tools, including the use of information and communication technologies in the educational space of a higher education institution.

The introduction of large-scale national information education programs in Ukraine has led to create a new type of information and communication educational space (ICLS) in higher education institutions that allow to use of the latest

technologies for organizing pedagogical interaction in the educational process and accompany of the all types of educational activities of students.

The purpose of the research is substantiate the pedagogical conditions for increasing the efficiency of pedagogical interaction of participants in the educational process in the conditions of the functioning of information and communication educational space in a higher education institutions.

**Analysis of recent research.** The study of scientific and pedagogical literature on the above-mentioned problem allows us to state the fact that in order to support the educational process in the activity of higher educational institutions there has been accumulated some experience in the practical use of the ICPS. There were a number of scientific researches on the influence of information technologies on the intellectual development, the motivation of educational and cognitive activity of students, on disclosing their intellectual potential and creativity. Research confirms the existence of significant advantages of a rational combination of traditional learning with information technology.

So, the study of scientific works of contemporary domestic and foreign researchers suggests that during the last years of the development of pedagogical theory there is a significant demand for pedagogical knowledge about the peculiarities of the use of information and communication educational space for the organization of pedagogical interaction between teacher and students. In this aspect, the attention of scholars was focused on the following issues: the effectiveness of the functioning of the information and learning space (Z. Davletkireev[1], V. Osadchyi[2], L. Panchenko[3], etc.); peculiarities of pedagogical interaction in the conditions of information and communication educational space (M. Zabrotskyi[4], G. Kovalev[5],

[1] Давлеткиреева Л. З. Информационно-предметная среда в процессе профессиональной подготовки будущих специалистов в университете : монография / Л. З. Давлеткиреева. – Магнитогорск : МаГУ, 2008. – 142 с.

[2] Осадчий В. В. Система інформаційно-технологічного забезпечення професійної підготовки майбутніх учителів в умовах педагогічного університету : монографія / В. В. Осадчий; за ред. С. О. Сисоєвої. – Мелітополь : Вид. буд. ММД, 2012. – 420 с.

[3] Панченко Л. Ф. Інформаційно-освітнє середовище сучасного університету : монографія / Л. Ф. Панченко. – Луганськ : Вид. ДЗ „ЛНУ імені Тараса Шевченка", 2010. – 280 с.

[4] Заброцький М. М. Педагогічна взаємодія: екологічний вимір / М. М. Заброцький // Актуальні проблеми психології. Екологічна психологія : зб. наук. праць Інституту психології ім. Г. С. Костюка АПН України. – К., 2006. -Т. 7, вип. 9. – С. 77–84

[5] Ковалев Г. А. Диалог как форма психологического взаимодействия / Г. А. Ковалев // Общение и диалог в практике обучения, воспитания и психологической консультации. – М. : Просвещение, 1987. – С. 18-26.

M. Podberezskyi[6], etc.); didactic interaction in the conditions of the ICPS (L. Petuhova[7], O. Spivakovskyi[8], etc.).

A number of papers by foreign scholars is devoted to theoretical and methodological foundations for the creation of a single educational space and a virtual learning space (N. Wagner[9], W. Bowen[10], R. Mendenhall)[11], etc.).

Agreeing with the opinion of D. Garison's, T. Anderson's, and W. Archer's, we believe that online learning is learning by means of synchronous communication; however, it is crucial to have a learning space that fosters the experience of a class that increases the level of socialization and support between teachers and students. Remote increase of social Students' integration can be accomplished using audio and video conferences, life chats, etc.[12]

According to the statement. Fynder and D. Raily, online education is divided into the following types: informative, complementary, essential and completely online. Under the condition of learning "completely online", there is not individual interaction, but the presentation of the content of the course and tasks and the relationship between the teacher and the student is carried out online[13].

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[6] Подберезський М. К. Характеристика особливостей педагогічної взаємодії / М. К. Подберезський // Вісник Дніпропетровського ун-ту ім. Альфреда Нобеля. Серія «Педагогіка і психологія». 2011. – № 2. – С. 31–36.

[7] Петухова Л. Є. Розширення можливостей навчального процесу в умовах інформаційно-комунікаційного педагогічного середовища /Л. Є. Пєтухова // Збірник наукових праць «Інформаційні технології в освіті» Херсонського державного університету, 2010. – №6. – С. 32-37.

[8] Співаковський О. В. До оцінювання взаємодії у моделі «Викладач – студент – середовище» / О. В. Співаковський, Л. Є. Петухова, Н. А. Воропай // Наука і освіта. – 2011. – № 4/С. – С. 401–405.

[9] N. Wagner, Who is responsiblefor E-Learning Success in Higher Education? A Stakeholders' Analysis / N. Wagner, K. Hassanein, M. Head // Educational Technology & Society. – 2008. – № 11(3). – P. 26-36.

[10] Online learning in Higher Education / William G. Bowen, Matthew M. Chingos, Kelly A. Lack and Thomas I. Nygren // Education Next Spring. – 2013. – Vol. 13. – № 2 [Електронний ресурс]. – Режим доступу : http://educationnext.org/online-learning-in-higher-education.

[11] Robert W. Mendenhall. «How Technology Can Improve Online Learning – and Learning in General» / R. W. Mendenhall // Chronicle of Higher Education, November 6, 2011 [Електронний ресурс]. – Режим доступу : http://chronicle.com/article/How-Technology-Can-Improve/129616.

[12] D.R. Garrison, Theory of Critical Inquiry in Online Distance Education / D. R. Garrison, T. Anderson, W. Archer // Handbook of distance education // M. G. Moore, W. G. Anderson. – London : Lawrence Erlbaum Associates, 2003. – P. 113 – 127.

[13] K. Finder, Establishing a Framework Useful for Developing Web-Based Assignments in K 12 Education / K. Finder, D. Raleigh // Proceedings of Society for Information Technology & Teacher Education International Conference. – Washington : Association for the Advancement of Computing in Education, 1998. – P. 159 – 162.

But modern domestic pedagogical science for various reasons has not yet offered effective mechanisms for the introduction of three-subject relations (teacher – student – ICLS) in organizing pedagogical interaction of participants in the educational process of higher educational institutions.

## 2. Methods of the reaserch

In the article there are a number of methods: the analysis of psychological and pedagogical scientific literature on the pedagogical interaction of participants in the educational process in higher education, the use of the opportunities of information and communication technologies in the educational space of a higher educational establishment; comparison; generalization, simulation; observation, survey, questionnaire; pedagogical experiment; quantitative and qualitative analysis; methods of mathematical statistics.

## 3. Results and discussion

The professional training of a future specialist permits the presence of at least two parties – a subject and an object, but these parties may only be in a relationship in a certain area defined by the "space", one of its components being pedagogical conditions[14].

Z. Davletkireev refers to the pedagogical conditions that ensure the effective functioning of the informational and subject space: the construction of the elements of the space for each stage of the professional training of future specialists on the basis of pedagogical continuity; formation of professional motives, interests and value orientations of future specialists with the use of opportunities of information and subject space; development of teachers' competence in using information and subject space in the process of professional training of future specialists[15].

Summarizing the requirements of the present to the training of specialists, taking into account the fact that the improvement of the pedagogical process is achieved at the expense of the interconnected complex of pedagogical conditions,

[14] Моторна Л. В. Педагогічні умови застосування освітніх технологій в процесі викладання природничонаукових дисциплін у технічних коледжах [Електронний ресурс] / Л. В. Моторна // Гуманізм та освіта : матеріали IX Міжнародної науково-практичної конференції, 10-12 червня 2008. – Вінниця, 2008. – Режим доступу до журн. : http://conf.vntu.edu.ua/humed/2008 /txt/Motorna.php.

[15] Давлеткиреева Л. З. Информационно-предметная среда в процессе профессиональной подготовки будущих специалистов в университете : монография / Л. З. Давлеткиреева. – Магнитогорск : МаГУ, 2008. – 142 с.

and the success of the allocation of conditions depends on the clarity of the definition of the ultimate goal or result, we have highlighted the pedagogical conditions that ensure the effectiveness of the pedagogical interaction of participants in the educational process in the conditions of functioning of the ICS of the higher educational establishment, shown in Fig. 1.

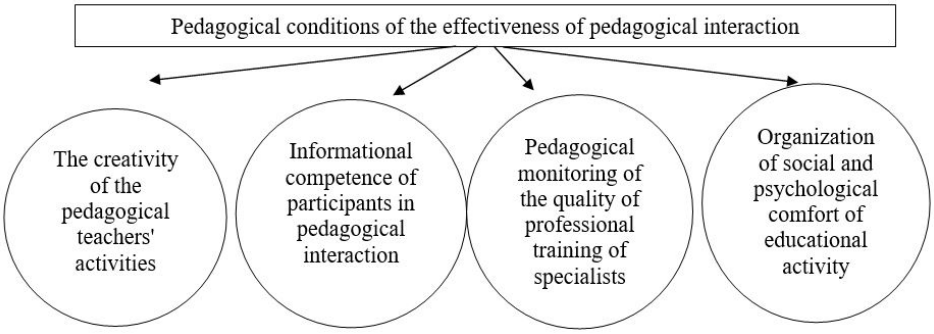



Fig. 1. Pedagogical conditions that ensure the effectiveness of pedagogical interaction of participants in the educational process in the conditions of the functioning of the ICLE.

We have selected the first pedagogical condition. *It is the creativity of teachers' teaching activity.* So, the functioning of the information and communication educational space involves changing the role of the teacher and the nature of the work, as well as additional reliance on the following functions: coordination of the educational process; adjustment of teaching and methodological support of disciplines; counseling in developing an individual student curriculum and managing educational projects in the mode of remote access. This leads to the need for professional training of future specialists in the functioning of the ICLS and the use of ICT to change the style of work of teachers from reproductive to creative.

Under the creative style of the work of high school teachers, we understand the following: the ability to form educational and methodological support on discipline so that it could provide effective conditions for students to acquire basic theoretical knowledge and practical skills, to stimulate them to seek new professional knowledge, unconventional ways of solving the tasks, in particular ICT tools; the ability to put a learning problem in order to stimulate intellectual activity, analysis and comparison of known facts, independence of conclusions and generalizations; competence in using the information and communication learning space both in the process of professional training and the during of the pedagogical interaction with the student.

V. Strumansky notes that when students see the professor's profound interest in improving the teaching methodology, if they participate in the preparation of

classes themselves and interaction is creative with them, when the personality traits of the teacher contribute to the development of their mental processes, emotions, feelings, then the level of education students will be higher [14, p. 126].

As the training of the students of the profession is focused on the process of mastering professional knowledge, skills and abilities through the use of the potential of information and communication technologies in general and the means of the information and communication educational space of the higher educational institution in particular. The following pedagogical condition – the informational competence of the participants in the pedagogical interaction.

The teacher's information competence is the readiness and ability to quickly change the resources of the information and communication learning space and to use it productively in the process of professional training of future specialists.

The pedagogical activity of the teacher with the use of ICPS means: awareness of the possibilities, structure, content, method and means of effective use of resources of the information and communication educational space, ability to use its resources in the learning process; regulation of mechanisms of self-knowledge, self-design and management of their own activities in the process of organizing learning by means of information and communication learning environment.

The activity of the teacher related with the formation of the content part of the ICLS, the direct participation in the implementation of professional training of future specialists by its means, solves one of the problems of informatization of modern higher education – the problem of teachers' readiness to work with information and communication technologies and one of the main problems of professional training of a specialist – unpreparedness of teachers to release a competitive specialist[16].

Information competence of students is formed in the process: mastering of disciplines, which involve the use of ICT for solving educational tasks, provide subject knowledge; work with the ICLE content of the higher education institution in preparation for seminars and practical classes, independent work; preparation of scientific articles, passing of practices, development of projects by means of information and communication technologies, etc.

The quality of the professional training of a future specialist depends on continuous pedagogical monitoring of the state and results of the educational process, if necessary, its correction. Therefore, pedagogical monitoring of the quality of professional training is the third pedagogical condition for ensuring the effec-

[16] Максимова Л. П. Педагогічні умови функціонування інформаційно-навчального середовища вищого навчального закладу економічного профілю / Л. П. Максимова // Неперервна професійна освіта: теорія і практика : науково-методичний журнал. – К. : Вид–во «Едельвейс», 2013. – Вип. 2. – С. 69-74.

tiveness of the pedagogical interaction of participants in the educational process in the conditions of the functioning of the ICLS of a higher educational institution. In this case, under pedagogical monitoring, we mean continuous supervisory control and the current adjustment of the interaction between the teacher and the student in the organization and implementation of the educational process[17]. It should reflect both the degree of provision of training conditions, the organization of the process of preparing a future specialist, the level of scientific and methodological and logistical support of the educational process, and the level of achievement of the goal of learning: the real results of training, the level of competitiveness of graduates and the professional activities of scientific and pedagogical workers.

Pedagogical monitoring of the quality of the student's training is realized by the teachers within each academic discipline. Computer testing of knowledge, results of performing independent tasks will provide analytical data for making decisions on corrective measures.

The possibilities of the ICSU of a higher educational establishment allow to promptly make changes to the content part of the electronic teaching and learning complex of the discipline.

Monitoring of self-training within the discipline can be carried out by the student himself, using the modular control provided for in the electronic teaching-methodical complex of the discipline. Obtaining a positive assessment for the previous content module gives you the opportunity to move on to mastering the material of the next content module of the discipline.

*The organization of social and psychological comfort of educational activity is* the next pedagogical condition. First of all, this is the creation of an atmosphere that is positively oriented towards every person who is open to a sincere, direct, trustful interpersonal interaction that provides conditions for the development of democratic relations in higher education[18].

The teacher should be the initiator of the development of trust, tolerance to each student. His style of activity should determine the positive emotional response of students, especially those whose level of development of social qualities, culture is favorable to appropriate pedagogical influences.

Students attract freeing them from long-term perception and summarizing the necessary information through the capabilities and resources of the ICSU at lectures, workshops. An essential condition for an effective organization pedagogi-

[17] Касьянова О. М. Моніторинг в управлінні навчальним закладом / О. М. Касянова, Т. Б. Волобуєва // Управлінський супровід моніторингу якості освіти. – Х. : Основа, 2004. – 96 с.

[18] Равчина Т. Організація взаємодії студентів з освітнім середовищем у вищій школі (вісник Львів. ун-ту сер. пед. 2005. – Вип. 19. Ч. 2. – С. 3–16.

cal interaction in the training of future specialists, their intellectual and personal development is the creation of a business atmosphere in the teaching of students. The ICLS of the higher education institution develops their subjective position and corresponds to their need to be the subject of pedagogical interaction.

It is important that self-determination, the development of internal motivation for student learning contributes to their experience in autonomous organization of activities and its self-regulation in the conditions of the functioning of the information and communication learning space.

It should be borne in mind that pedagogical interaction in the conditions of the functioning of the ICLS is not possible without a holistic relationship between the personality of the teacher and the student, educational activity, pedagogical conditions introduced, educational-professional communication situations and certain criteria that demonstrate the level of its effectiveness.

The different level of students' cognitive activity is determined by the fact that, in the context of the functioning of the ICLS, the main task of pedagogical interaction is to increase it, in accordance with the level of the set goals of learning, so that the learning process should become as effective as possible. Under active learning, the student performs regular, search, training, relevant to his interests and requests for training, takes part in dialogue communicate with the teacher. It becomes an active subject of a new interaction.

On the basis of the above, we can distinguish the criteria for the effectiveness of the pedagogical interaction in the conditions of functioning of the informational and computer learning space: motivational, cognitive, cooperation.

According to *the motivational criterion* is determined the interest of students in obtaining new information, in particular, means of information and communication technologies; internally motivated actions, due to the installations, needs, interests, motives that ensure readiness for interaction between the teacher and the student or between the students themselves under the conditions of the ICLS, ensure the integrity of the content of the activity.

*The cognitive criterion* shows the level of influence of learning in the conditions of the ICLS on cognitive activity, systematization and generalization of the received information, setting tasks for further advancement in the information field.

*The criterion of cooperation* determines the level of psychological comfort during the interaction, the level of partnership and mutual responsibility for the results of training in the system "teacher – student – ICLS".

Effectiveness of pedagogical interaction in the conditions of functioning of information- communication educational space of a higher educational establishment is determined by high, sufficient and low levels.

Information and communication educational space is intended to increase the efficiency of professional training of the future specialist, therefore, the main structural element of it, in our opinion, is the electronic educational and methodical complex, as it provides informational and substantive support of educational process and computer monitoring of students' knowledge.

The creation of an electronic teaching and learning complex of academic discipline should be dual: content must be formed by teachers and technical implementation by specialists of the department of information technologies.

It is expedient to formulate the training material in the form of content modules and also after each module it should be provided the verification of theoretical knowledge in the form of testing, the implementation of a practical task individually or in small groups.

Computer testing using the MyTestX software is used for computer monitoring student knowledge, because it is possible to create ten types of tasks: single choice, multiple choice, order of passing, compliance, truth or false allegations, manual input of numbers, manual typing text, selecting a place on the image, filling in passes. The assessment parameters are set by the teacher.

Considering that the student is the leading subject of the study activity. During the research we identified the students' opinion on the effectiveness of the existing pedagogical interaction of the participants in the educational process in the conditions of the functioning of the ICLS of the higher educational establishment. Questions of the questionnaire, which offered to students, corresponded to the essence of the selected criteria: motivational, cognitive, cooperation. Summarized student responses at the beginning of the experiment are presented in Table 1.

Table 1. Input data on the effectiveness of pedagogical interaction

| Level | Criterias | | | | | |
|---|---|---|---|---|---|---|
| | motivational | | cognitive | | cooperation | |
| | Q-ty | % | Q-ty | % | Q-ty | % |
| High | 19 | 12,93 | 21 | 14,19 | 18 | 16,22 |
| Sufficient | 36 | 37,41 | 32 | 35,14 | 32 | 36,49 |
| Low | 53 | 49,66 | 55 | 50,68 | 58 | 47,3 |

The data in Table 1 allows us to state that 49.12% of respondents consider the level of effectiveness of the existing state of pedagogical interaction to be low according to all criteria; 36.35% – sufficient; 14.44% – high.

During the formative stage of the experiment, in order to implement the distinct pedagogical conditions the following was done:

1) conducted group on-line consultations, accompanied by multimedia presentations with subsequent discussion of the presented material;
2) lectures were conducted using the method of "inverted learning", in which the typical presentation of the material becomes a discussion of a lecture, during which it is discussed the projects, implementation of practical tasks, etc. Students in advance familiarize themselves with the lectures presented at the ICSU of a higher educational institution and prepare questions for clarification at the lecture. Finally, the teacher is offered the task of preparing students for practical classes. In the "inverted" approach, as a key component, video lectures created by the teacher and posted on the Internet are often considered;
3) the development of group projects using the technology of Wiki – service is proposed as the most promising technology for the organization of inter active learning in cooperation, as it involves the pedagogical interaction between teachers and students, students between themselves, students and ICT. Students should create an interactive project in which to post and collaborate with the material.

In our opinion, the above-mentioned implementations, will promote the development of "subject-subjective" relationships in the learning process, support the educational and research activities of participants in the educational process, develop mental activity, creativity and promote the formation of information and communication competence. Involvement of the third-level peer education system – the ICLS of a higher education institution – will enable the content of the learningspaceto be filled up, increase the student's motivation for its consumption, allow more efficient use of the possibilities of pedagogical interaction, make the learning process more psychologically comfortable.

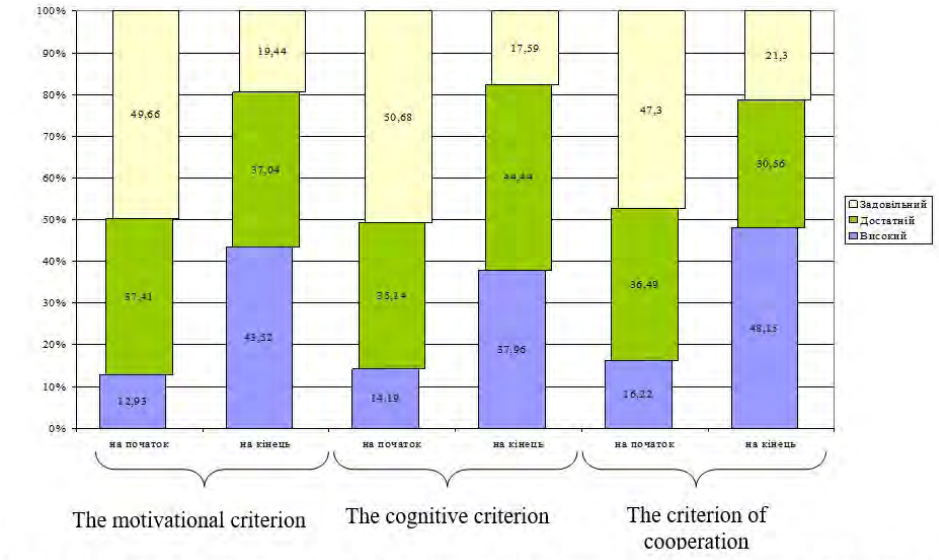
The generalization of students' responses to the effectiveness of pedagogical interaction in the conditions of the functioning of the information and communication learning space at the end of the experimental study is presented in Table 2.

Table 2. Output data on the effectiveness of pedagogical interaction

| Level | Criterias | | | | | |
|---|---|---|---|---|---|---|
| | motivational | | cognitive | | cooperation | |
| | Q-ty | % | Q-ty | % | Q-ty | % |
| High | 47 | 43,52 | 41 | 37,96 | 52 | 48,15 |
| Sufficient | 40 | 37,04 | 48 | 44,44 | 33 | 30,56 |
| Low | 21 | 19,44 | 19 | 17,59 | 23 | 21,30 |

In fig. 2 shows the growth of the effectiveness of pedagogical interaction at the beginning and end of the experiment.

We can state that after the formative stage of the experimental study, the level of pedagogical interaction of participants in the three-subject relations "teacher-student-ICLS" has increased by all criteria which is characterized as high: according to the motivational criterion – by 30.59%, according to the cognitive criterion – by 23.77% and by the criterion of cooperation – by 31.93%; the low level has fallen by all criteria: according to the motivational criterion – by 30.22%, for the cognitive criterion – by 33.09% and by the criterion of cooperation – by 26.00%.




In fig. 2 shows the growth of the effectiveness of pedagogical interaction at the beginning and the end of the experiment.

Consequently, the number of students who raised the positive motivation to interact with teachers and other students through ICPS has increased. We can state the tendency to prevail the creative approach in mastering professional knowledge, skills and abilities. The level of independent cognitive activity, systematization, classification and generalization of new information has increased significantly. We note that the most students is used the resources of the ICSU and in co-operation with the coordinating teacher, demonstrate the ability to identify and resolve non-typical learning tasks. In the process of learning, in particular in the system of "teacher – student – ICLS", there is a rather high level of psychological comfort and partnership. Self-realization of the student's personality contributes significantly to the style of communication and the effectiveness of teacher's interaction with the teacher.

The number of students who have remained unstable motivation to pedagogical interaction with the means of ICPS, insufficient internal motivation to study and professional self-improvement, low level of independent cognitive activity, psychological comfort and partnership in the process of training in the system "teacher – student – ICLS" have decreased.

## 4. Conclusions and perspectives for further studies

Thus, the educational process is determined by the presence of three-subject relations in the pedagogical interaction of participants in the educational process, which are established between the student, the teacher and the information and communication educational space of the higher educational institution. Information and communication learning space is one of the effective forms of pedagogical interaction.

Pedagogical conditions for increasing the efficiency of the pedagogical interaction of participants in the educational process in the conditions functioning of the ICS in the higher educational establishment are: creativity of teachers' teaching activity; informational competence of participants in pedagogical interaction; pedagogical monitoring of the quality of professional training of specialists; organization of social and psychological comfort of educational activity.

Criteria for the effectiveness of the pedagogical interaction of participants in the educational process in the conditions of the functioning of the ICLS of the higher education establishment are determined by motivational, cognitive, cooperation and the corresponding levels of the effectiveness of the pedagogical interaction are high, sufficient and low.

The results of the experimental study confirmed the effectiveness of the isolated and theoretically substantiated pedagogical conditions of the use of the information and communication educational space as a means of organizing the peda-

gogical interaction of the participants of the educational process in the higher education institution: the students had a positive motivation to interact with the teachers and students by the means of the ICLS, the tendency towards creativity in mastery professional competence; there is an increase in the level of independent cognitive activity, systematization, classification and generalization of new information, aspiration of students to use ICPS resources and to interaction with the coordinator teacher, when solving non-typical educational tasks. Such an organization of pedagogical interaction in the learning process provides a high level of psychological comfort and partnership.

The implementation of this study does not exhaust all aspects of the abovementioned problem. Prospective areas of scientific research are the search for ways of forming the communicative competence of a teacher of a higher educational institution and designing an integrated learning space.

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