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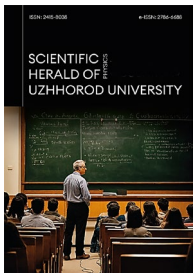

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Contemporary development of educators in the context of digitalisation of education

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Abstract

Relevance. The relevance of the article research is determined by the problem of improving the quality of the educational environment through the wide implementation of various modern innovative means of information and communication technologies, which will expand the capabilities of the educational process.

Purpose. The aim of the article is to develop a model of professional information and communication competence formation among educators.

Methodology. Leading methods for studying this problem included diagnostic testing "Determination of the style of interpersonal interaction" developed by S. V. Maximov, Y. A. Lobeiko, and "Self-assessment of professional and pedagogical motivation" adapted by N. P. Fetiskin, which allow determining the personal interest of educators to acquire new information and communication technologies and use them in their work in terms of manifestation of educational creative communication within the effective enhancement of the level of informative, accessibility of the teaching and educational process.

Results. The article presents a model of development of information and communication competence of educators within the framework of using modern technologies in pedagogical activity, which includes a timely study of information and communication developments and the creation of several schemes of their successful use in conditions of preserving health saving learning environment, for the solution of pedagogical issues and improvement of the educational process which was proposed within the framework of creation and introduction of the training cycle "Pedagogical methods with the use of ICT" with the same name into the sphere of practical education.

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Conclusions. There, in the factor of obtaining a pedagogical speciality or upgrading this professional qualification educators will acquire knowledge and practical skills in the use in the practice of verification of domestic work, conducting classes, strengthening information and communication contacts through the exploitation of existing developments in the area of information and communication technology, which will have practical significance in the training of highly qualified personnel in the educational sphere.

Keywords: ICT competencies; information and communication technologies; modern pedagogy; methodology; digital education.

Introduction

In recent years, the field of pedagogy has expanded its capacity through the implementation of various methods in practical education based on modern innovative developments, among which many are items of technological creation that ensure the progression and development of pedagogical tools used in the field of subject mastery [1]. After all, the teaching field carries meaningful phenomena that are responsible for the main factors in cognition of various sciences, and the methodological aspects of the presentation of the various components of knowledge allow to strengthen the various elements to provide information and its understanding by learners at different levels. It is important for educators, as part of their training, to become familiar with and understand the parameters of these technological developments, which in the current stage of development have been grouped in the field of information and communication technology (ICT). In addition, given that they are an innovative technology, there is a need for the factor of learning to master it, the ability to use it, as well as any modern invention of scientists [2]. This can only be done on a practical level, with the subject study of each of the main factors in the consideration of the subject of the invention, and from the various aspects based on the existing possibilities of its use, which will be expanded in the criteria for the implementation of various scientific approaches and developments, taking into consideration the time interval of use. It will also be individually applied on the basis of different situations that may arise in practical lessons, classes, laboratory work, lectures, where the strengthening of knowledge and perceptions will be greatly improved with the help of information and communication technologies deepening the educational process of classes [3].

An emerging trend that supports the progress of the learning environment requires a review of existing professional competencies of future and current educators who will need to successfully apply ICTs in their professional practice. Thus, there is a need to broaden this criterion of teacher education to include the development of ICT competencies in educators, including at the practical level, which will be necessary when various educational institutions are equipped with the necessary hardware. Globally, this trend will lead to the digitalisation of education, which will qualitatively improve the provision of educational services in general. The implementation of the described is also possible from a systematic and analytical approach, based on existing programmes of digitalisation of the main spheres of life, which will improve many components of life, in its provision, and based on that improve the quality of life of the population as a whole [4-8]. Therefore, the formation of a successful level of information and communication competencies of pedagogical specialists becomes an important and even obligatory part of their professional education. Without studying the factors of innovative technological developments, timely familiarisation with them, the ability to apply them purposefully in the learning process by implementing various tasks of the educational process, the training staff will not be able to apply them and replace and supplement existing teaching methods with new ones based on the unfolding possibilities of ICT. After all, information and communication technologies, when applied together, will form a digital environment in educational institutions, raising the whole field of practical education to a new high level [9, 10].

Materials and Methods

This pedagogical experiment was conducted through diagnostic testing methods which allow determining the factors that educators focus on when giving teaching material and realise their potential in the aspects of conducting various necessary communications with students, and also identifying students' personal aspirations in acquiring new knowledge and skills, which is important for timely familiarisation and learning of the developed ICT technical support. Thus, two tests were used to determine the success of the ICT competence formation model. The first was “Determination of interpersonal interaction style” by S.V. Maximov and Y.A. Lobeiko, which makes it possible to identify the success of a teacher's aspiration to establish creative communication, within which ICT use will be presented, which, in fact, should improve the whole process of knowledge presentation at the level of its successful perception by all participants in the educational process [11]. The given test includes 20 questions and allows defining the level of personal interaction in different styles, such as aspiration to communicate, passive action, and building relationships based on psychological dependence on the opinion of colleagues. A detailed study of the test parameters allows for identifying the features of personal interaction with others, which will be reflected in the learning process in the future.

The second test “Self-assessment of professional and pedagogical motivation”, adapted from N.P. Fetiskin, implies identifying of personal interest of respondents as pedagogical specialists in the parameter of learning modern methods of teaching, which will reflect the importance in the factor of their further use of ICT in their future work. The test has 18 items and the respondent will determine how well they correspond to his/her manifestations, and this allows personal motivational criteria to be identified in the low, medium, and high-level dimensions. After the diagnostic tests, the obtained results

were calculated with the use of ready-made keys, which allowed determining the level of the required parameters for the development of the model of professional ICT competencies. Also, during the experimental pedagogical work, pedagogical observation and questioning of respondents were conducted to study the criteria of students' understanding of the use of information and technological developments in their activities, based on identifying the factors which, according to the respondents, improve through the use of ICT. A standard method of mathematical counting and graphical representation of the results was used to calculate the results of the study. This pedagogical experiment was conducted at the "Orleu" Institute for Professional Development of Educators in the Akmola region of the Republic of Kazakhstan. Diagnostic testing was conducted among 95 practising educators, the age of respondents varied from 25 to 55 years old.

The problem was studied in three stages. The first stage implied a theoretical analysis of scientific, research, and methodological literature on the problem in the framework of developing a model of parameters that would allow the formation of professional ICT competencies in educators enabling them to successfully apply various means of information and communication technologies in their work. During the study of the existing literature, the actual problem, goal, and research methods of this work were defined and a plan for its implementation was created. In the second stage diagnostic testing of educators was carried out and experimental work with the analysis of the results and formulation of conclusions. The third stage concluded and systematised the results.

Results and Discussion

In the course of this pedagogical experiment with a systematic and analytical approach, the data obtained during testing were analysed in detail, which allowed identifying the parameters of the communication environment in the factor of personal manifestation of educators, and personal aspirations of respondents to study and apply in their professional activity new ICT methods in the pedagogical environment. They will strengthen and improve the areas of learning and cognition of different subjects and disciplines when applying in practice the actual innovative developments of information and communication technologies in conditions of maintaining various parameters of the environment, both the stay of students in educational institutions, and the learning, the educational process itself in the form of health saving, both at the physical, psychological, emotional, and social levels, which is an essential condition of any learning process, in any of its manifestations [12, 13].

Based on the field of practical education as well as the existing rules and methods of conducting both theoretical and practical lessons, there are criteria that are ensured with the personal participation of the teacher based on his/her attitude towards the learning process itself, in which he/she will take both active and passive participation based on its various stages. Any study of a topic carries with it factors such as learning a new topic, its consolidation, identifying parameters that will reflect the trainees' understanding of the field of study, consolidating the studied data, determining its field of practical application, and further checking the knowledge based on the studied material in its various aspects at the level of current contemporary criteria.

Thus, based on the main steps described, the various elements that will improve the subject matter of any subject or discipline will be important at each stage [14]. In this consideration, accessibility of presented information for understanding will be of great importance, which in turn depends on clarity, a factor of expression of thoughts, availability of necessary material for independent study, and deepening of knowledge, its relevance within the framework of practical application, which in general will develop cognitive interest and strengthen motivation to study the topic. These factors will, to a greater or lesser extent, be on the line of accessibility of understanding and simplification of some secondary aspects, which will only accompany the process to the achievement of the main goal of learning, based on the objectives set, improve the learning process and the cognitive environment as a whole.

There are different methodological bases for this level of issues, which tend to be constantly improved in the search for newly available tools that could improve the pedagogical field on a qualitative level to raise the effectiveness of the entire educational process, which is reflected based on factors not only in the common understanding of the knowledge of students, but also on the level of their general development, improvement of their quality of life in proportion with the corresponding changes in the age criteria, or on the need to grow professionally; also to maintain their level of health and the formation of a world outlook with the preservation of value orientations of moral parameters, the development of intelligence and erudition [15]. The main factors and indicators of the effectiveness of the methods of teaching knowledge, which will be reflected in the above criteria and will determine the success of the method of teaching, both in a global sense and based on the personal application of the teacher, who in the regular evaluative judgments will also bring aspects of personal attitude to students at the level of the communications created by them. It is known that the formation of the line of communication between the teacher and the learner will be responsible for the effectiveness of all stages of knowledge acquisition in any field. In this environment, any pedagogical tool will reflect exactly the direction that will come from the personal attitude of the teacher to the group, to the class or to the personality of any learner [16]. Therefore, the formation of professional competence in the use of any pedagogical method or element should take into consideration the preservation of constructive communication, a benevolent attitude of the teacher, health preservation, and the formation of an outlook for the future use of acquired knowledge only within the development and improvement of the well-being component of society as a whole [17, 18].

The modern age is renowned for its technological developments. Innovations that push the boundaries of information, communication, and interaction chains are creating a global digital world that transforms innovative ideas and allows many tasks to be carried out at a successful level. There are already known experiences of the application of information and technological developments in various spheres of life, which have modernised and raised the quality of life to a higher level

of the population in both the domestic and professional aspects of consideration. One of the important spheres nowadays is education, which educates and trains the young generation, and, in fact, the future population of the planet, and it depends on them what life will be in all aspects of its manifestation in the future [19-21].

Thus, the sphere of education has a very important mission to educate worthy members of society with quality and relevant knowledge, which will help them not only to reveal and realise their talents on successful health and eco-saving levels but also to create new developments in different professional fields, create production fields, make new scientific and technological discoveries. All of this will only be possible in the development of education on a successful level, where the boundaries of its improvement will be timely extended on the level of digital technological developments, in which information and communication technological creations have a major role. But any introduction in the field of the practical application of new technologies dictates the need to study them, both on the line of their use based on the features of their work, and in the factor of their meaningful application, which will improve any part of the educational process [22, 23]. Because any types of classes or lessons are conducted by educators and tutors, and it is they who decide based on their priorities, flexibility, focus, and available values, they will manage the learning process, designing its course, stages, elements of knowledge, then it is educators who should have a high practical level of new knowledge about ICT [24]. This dictates the formation, both at the level of professional development of specialists and within the framework of pedagogical education at the mandatory level, timely formation of relevant professional ICT competencies that would allow them to use information and communication technologies during their teaching activities, creating trends for increasing the digital environment in education [25].

It should be noted that only learning the available types of ICT technology worksheets will not be sufficient for active use in lessons and various learning activities. It is known that for the total application of the method the teacher has to develop the practical skill to use it in several habitual ways, as an existing pedagogical tool. This shows that the study of ICTs must be placed within the context of practical training in its practical application, like any other teaching method, given the opportunity to practise the use of ICTs at different stages of the study of many topics and disciplines. The study of ICTs should include both their types and capabilities, which will reveal the areas of their use. This option should also include laboratory work to develop practical skills in the use of these technological constructs [26, 27]. The digitalisation of the educational environment also implies the development of methods in the use of each ICT-based subject which provide qualitative improvements in the different goals and tasks of the learning process, both in theoretical teaching and in practical lessons and laboratory lessons [28]. The development of these methods will tend to strengthen and increase in these criteria providing future topics for graduate and postgraduate students' theses and research papers. For in the factor of cognition of possibilities on the background of their practical application ICT will increasingly expand the boundaries of teaching and practical material presentation in the educational practical environment. Many specialists and educators will use their creative competencies to develop successful models of ICT use, but it is important to teach and explain to specialists how to use ICTs from the outset when developing their professional competencies, considering the range of situations that may arise in practice as part of ICT use. This should be set at the level of pedagogical problem solving as early as in professional education or in the professional development factor for educators at any level [29, 30].

Hence, all the above-mentioned with a focus on essential criteria in providing the conditions for creating an environment of educational space with preservation of health position were considered necessary parameters and obtained diagnostic testing data, which will provide organisational abilities of ICT application, with the considered importance of creating prerequisites of understanding in their choice necessary within the aforementioned parameters mandatory for any educational and training process preservation of the healthy environment. The competent use of digital media as ICT will enable educators to carry out teaching activities that will have a positive impact on the education and training of any pupil, providing a high degree of understanding of the themes, facilitating the learning process at the technological level and developing their ICT literacy skills. After all, by observing the teacher's use of ICT in the classroom, the students themselves will be exposed to this digital technology field, understanding the importance of its use in their lives, both in teaching and in other possible domestic applications, which will improve quality, will develop independence, technological outlook, and understanding in all participants in the educational process, making ICT and the digital environment itself more accessible for understanding and use in their lives, both professional and private [31].

A detailed analysis of the parameters derived from diagnostic tests, pedagogical supervision, and questioning about the parameters of understanding the target application of ICTs at the level of methodological and systematic consideration allowed gaining a deeper understanding of the parameters required for the successful development of a model for shaping professional ICT competences that would enable educators to practically apply innovative developments, significantly improving the teaching and learning process Thus, taking into consideration the above-described components of experimental pedagogical research, at the practical level of implementation with factors of preservation of important aspects for the educational environment creating conditions for the successful development of all participants in the learning process, the model allowing to form professional ICT competences of educators in the criteria of ensuring, enhancing the effectiveness of teaching activities at different levels of practical pedagogy was formed. The outcome of the study under consideration is understood as a formed degree of professional ICT competence, which will enable the active use of information and communication technologies in the field of practical education.

The results of this research work in the successful shaping of ICT competencies were implemented in several stages which included determining the extent of educators'

personal communication and motivational abilities to use ICTs, and a survey to understand the extent of ICT competency building based on aspects of ICT impact on the educational process as a whole, and then full statistical processing of the results. The next stage of this experimental pedagogical work included the development and implementation of a model for shaping ICT competencies of educators with different qualifications for further implementation in practical education.

The study covered 95 educators, and the analysis of the results of the diagnostic test "Determination of the style of interpersonal interaction" allowed the conclusion that the communication abilities of the majority of them (57%) are developed at the passive level of interaction, which characterises the communication factors as a result of the formal conduct of the class, in which the teacher sees themself as just a leader within the giving of tasks or influence from the administrative position, emphasising his/her pedagogical competence in his/her statements to suppress the psychoemotional area of the learners. In the second place, values were identified (24%) which reflected sociologically dependent behaviour in communicating and delivering lessons on the opinion of others and colleagues. Only 19% had active communication amid strong personal aspirations. The test results are shown in Figure 1.

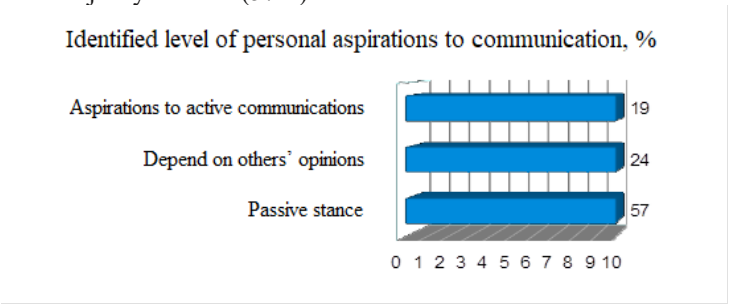

Figure 1. Distribution of educators according to the identified level of communication

A detailed analysis of the testing revealed an insufficient level of expression of personal characteristics concerning the highlighted parameters in the factor of necessary communications, which are significant within the use of technological means of ICT in their professional activities. The findings are reflected in Figure 2.

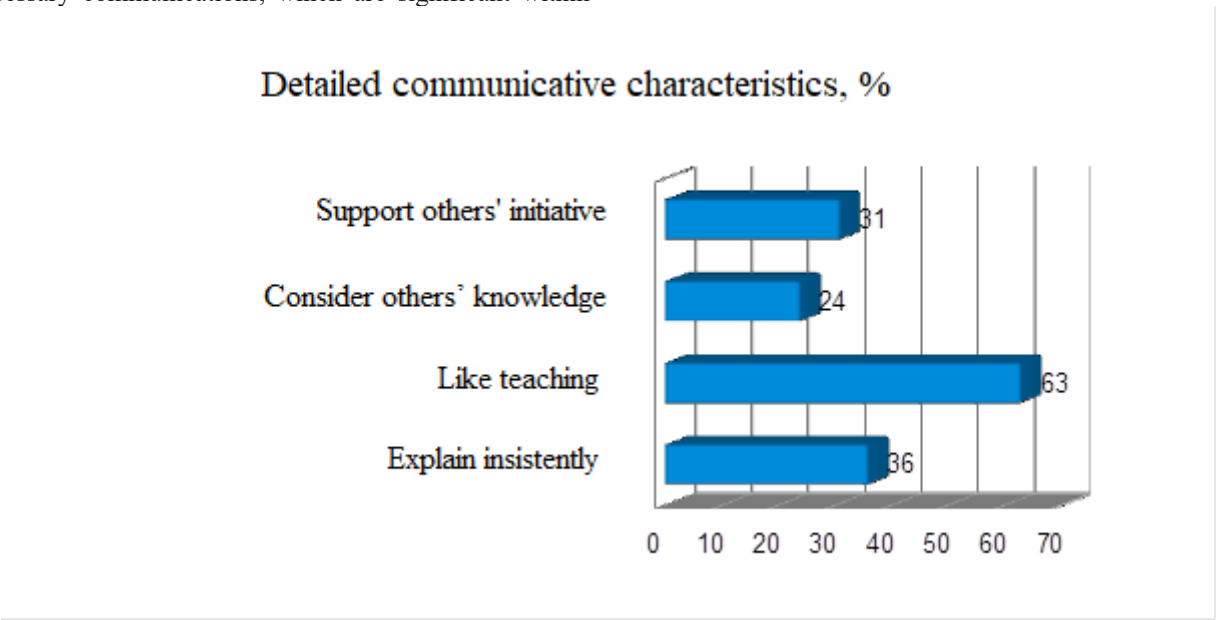

Figure 2. Distribution of educators according to detailed testing indicators at the first stage of the study

The test figures for pedagogical motivation reflected data within the average values of its expression for most of the educators surveyed (48%), based on the low and high distribution of respondents, which were found to be 35% and 17% respectively (Figure 3).

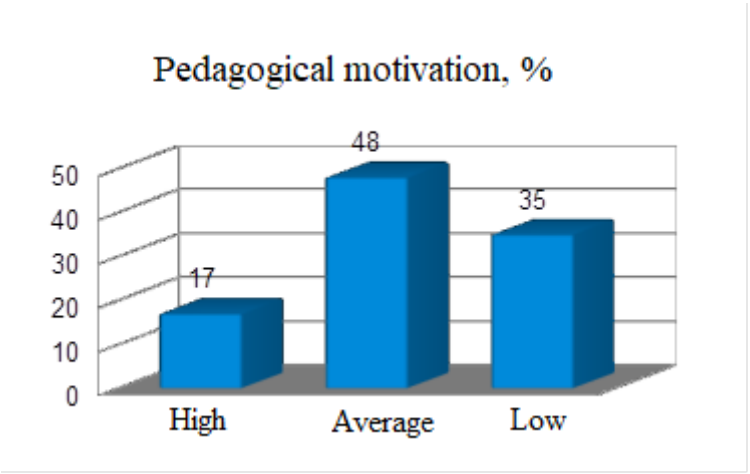

Figure 3. Distribution of educators according to their identified degree of pedagogical motivation

The detailed motivational characteristics obtained in the study are reflected in Figure 4.

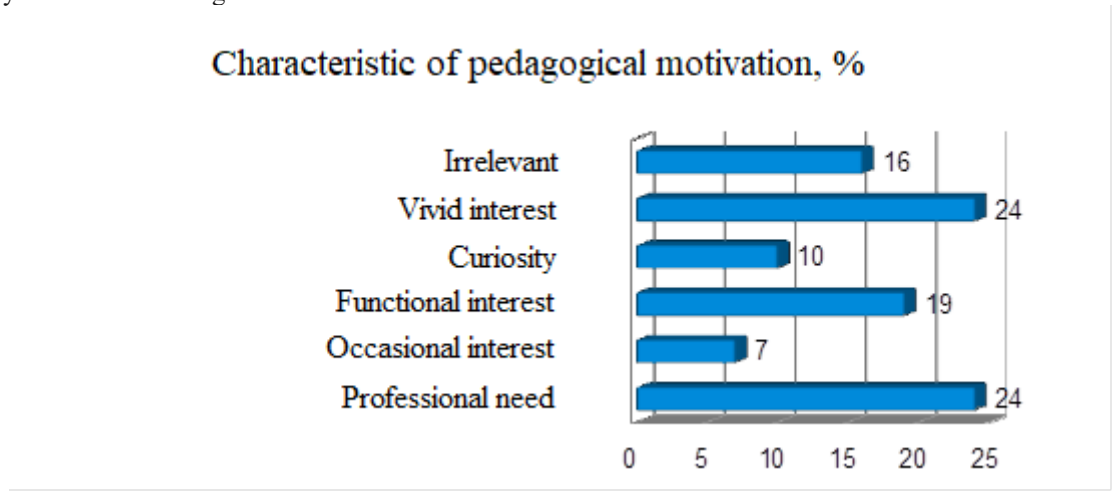

Figure 4. Distribution of educators according to their identified characteristics of pedagogical motivation

Considering that the existing innovative developments of information and communication order can greatly help educators to improve the conduct of various classes, such as in the area of homework checking, where there are programmes to identify students' handwriting and convert it into printed characters, that will be easier to read and also the programme can automatically detect errors in them. ICTs allow visualisation of the learning process on a successful background through the virtual construction of 3D models of various shapes, for their easy review and study, and also provide printed versions of various books and information carriers even from world libraries, which can be studied by students to deepen their knowledge. Demonstrate in the accents of visualisation various natural phenomena, experiments on various subjects, create motivational parameters to arouse greater interest in the learning process of students in the factor of creating teleconferences, video viewings, and in the organisation of visual solution of situational tasks, which will contribute to the development of erudition and intelligence [32]. A detailed consideration of the various components of information and communication technologies can develop multiple schemes for their application to improve the learning and educational process, which will expand over time of practical application, and this trend will increase the scope for sustainable development of the digital space of the educational environment in its practical and theoretical application.

Education, due to its several influencing parameters, affects the development of students and needs timely implementation of various existing technological developments, which will contribute to the importance of increasing the pedagogical motivation of educators themselves, as having a large arsenal of pedagogical tools that will facilitate lectures and practical classes on an interesting perception of this, helping educators to explain topics or visualize practical material [33]. This will be of great practical importance for the improvement of the whole pedagogical environment. However, the use of modern developments requires educators to learn these parameters, which should be mastered by them at a high level of practical application, including making an independent decision, which will allow them to apply ICT tools in a successful position for identifying results based on situational tasks, if necessary. The results obtained during the pedagogical experiment at this stage suggest that only one-fourth of the educators under study have sufficient personal aspirations and curiosity, which will allow them to use ICT in the factor of common methodological work of lesson activities. In addition, the findings dictate the need to develop a model for ICT competency building, which would expand educators' understanding and mastery of ICT both in teacher

education and in professional development, enabling educators regardless of their experience to acquire new and important knowledge about ICT from the perspective of acquiring this ICT competency. Thus, the development of this competency will make the use of ICT tools in the teaching process a common factor in the delivery of various lessons and activities.

Proceeding from the above-mentioned, analytical, and methodological processing of all the information obtained in the course of the research work allows reviewing the necessity of implementing factors in the system of professional and pedagogical education which would meet the above-mentioned tasks and allow expanding the educational process based on ICT application, contributing to digitalisation of the educational environment in general. Thus, based on the totality of the described facts, the tendency and parameters for the implementation of research conditions in the process of successful development of the model of professional ICT competencies formation were identified, which will allow educators to expand the possibilities of educational and training processes through the active application of information and communication technologies in their work.

Considering all the elements of information retrieved in the study, a model for the effective shaping of educators' professional ICT competencies was developed, which represents high-quality training in the study of existing innovative ICT tools and technologies, at a theoretical and practical level, which enables educators to acquire the necessary skills in their use, as well as learning their capacities which, within a pedagogical environment, will be adapted to the teaching and learning process in and out-of-school lessons. In addition, by attending these lectures and workshop sessions, educators will practise using ICTs to address their learning situations. This will enable educators to model the successful use of ICT tools in their professional practice. Professional development will proceed from the development of new ICT tools which enhance the learning process, both in terms of professional learning and distance learning, for example through a textbook, which as educational institutions become equipped with ICT tools, will support their active deployment in pedagogical practice in the digital learning environment for all participants in the educational process [34].

Repeated testing revealed a positive trend in terms of increasing the quality of communication during the learning process. Thus, indicative data reflecting the increase in personal communication characteristics were revealed, where the majority had high values of parameters of personal aspirations for active communication (76%), which suggest that educators will strive for active teaching in the criteria of explaining the topic, interesting presentation of the information, and practical part of the necessary material. The findings are shown in Figure 5.

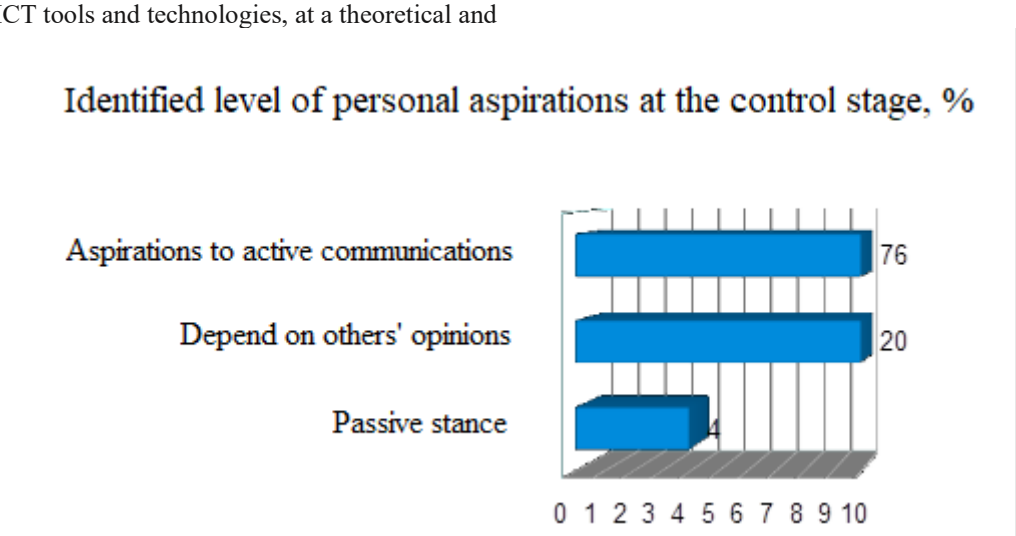

Figure 5. Distribution of educators according to the identified level of communication in the control stage

Analysis of the data suggests that often educators do not realise themselves due to the factor of lack of knowledge of different pedagogical methods, in which ICT is a convenient and meaningful tool. The dynamics of the detailed analysis of the "Identification of interpersonal interaction style" test also revealed a significant positive response in the acquisition of communication-order characteristics. The findings are reflected in Figure 6.

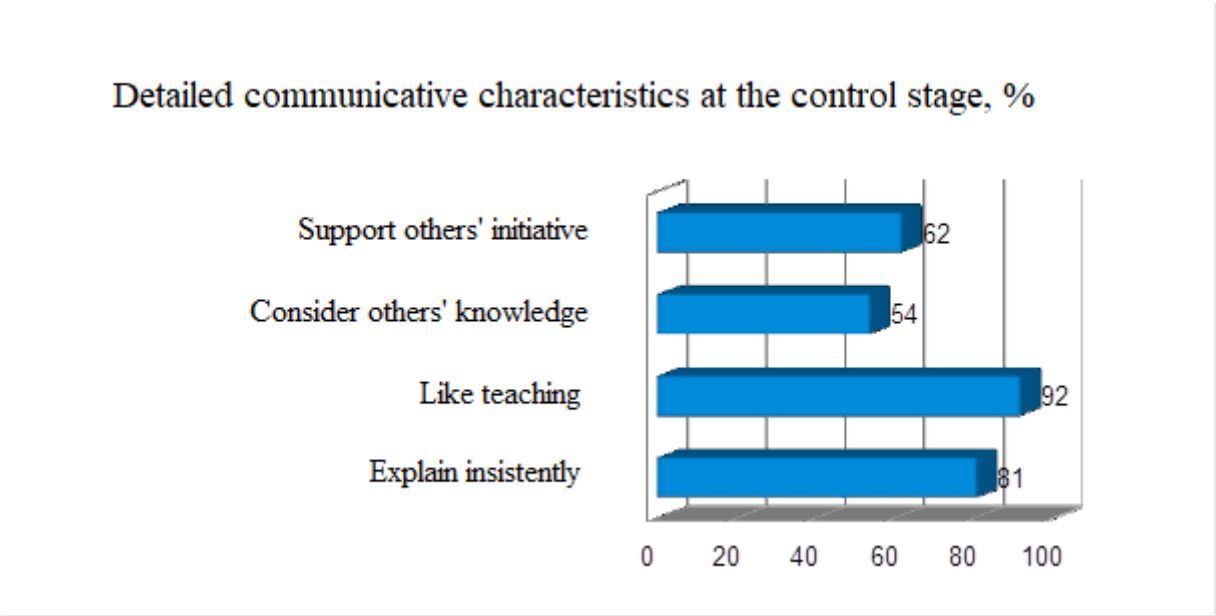

Figure 6. Distribution of educators based on detailed test figures in the control stage of the study

The results of the diagnostic test to determine pedagogical motivation were significantly revealed in the parameters of pedagogical motivation enhancement. Figure 7 shows the results that the high degree of motivation in the factor of enhancing the personal component in pedagogical activity has increased to 56%.

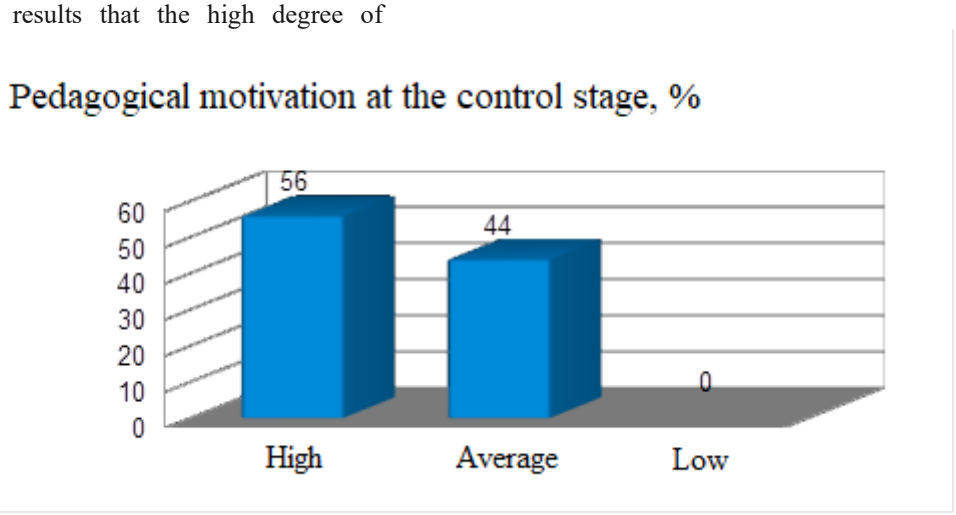

Figure 7. Distribution of educators according to their identified degree of pedagogical motivation in the control stage of the study

Figure 8 demonstrates the dynamics of the characteristic of pedagogical motivation, which shows that educators' cognitive interest and professional need to learn ICT have increased.

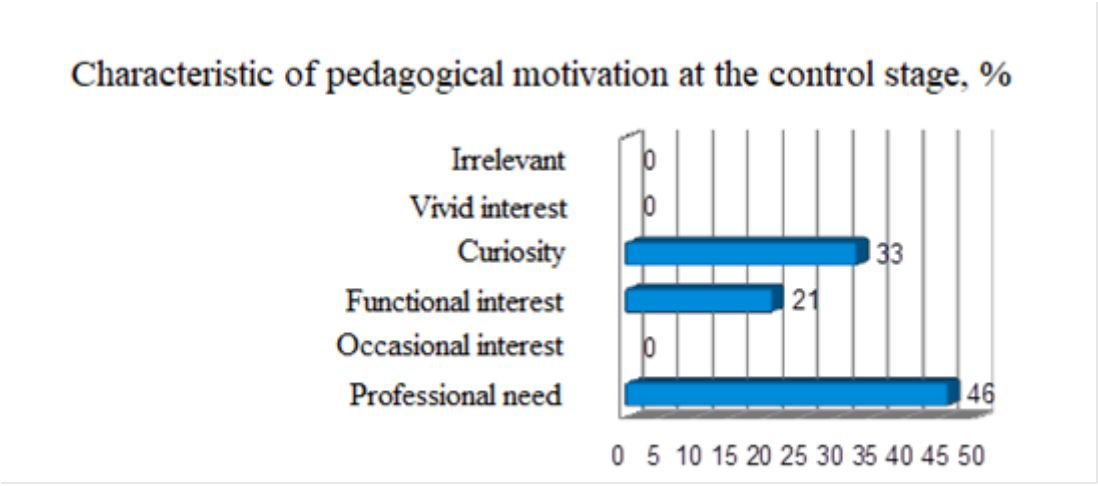

Figure 8. Distribution of educators according to their identified characteristics of pedagogical motivation at the control stage

The pedagogical survey of the respondents showed that all had developed skills in using ICT to improve the learning process based on conditions of motivation for learning activities (100%), interest in the subject or discipline (100%), increased visibility of the learning process (87%), perception of ICT as a tool for teaching knowledge (100%), increasing understanding of the thematic areas being studied (87%), factors for developing creativity (64%), increasing intelligence (72%), and impact on the concentration of attention to learning (96%).

The survey also revealed educators' positive attitudes towards the use of ICT in their professional work, as shown in Figure 9.

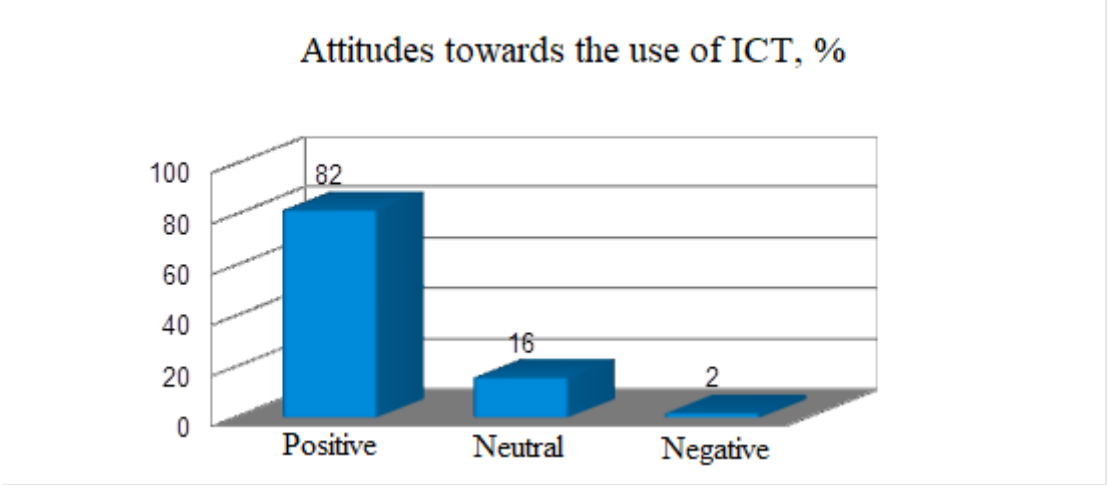

Figure 9. Distribution of educators according to their attitudes towards the use of ICT in pedagogical work in the control stage

The analysis of the obtained resulting data based on the reflected indicators allows stating that the created model of professional ICT competence formation among educators proved to be effective and successful, and allows for actively applying various developments of information and communication technologies within the assigned learning tasks. The correctness of the study was ensured by the fact that the characteristics and results of diagnostic tests and surveys, with the developed parameters of the created model, were comparable in the study, and are correct.

The current ICT developments have an extensive arsenal that, when implemented in the area of practical education, can significantly improve many qualitative indicators of the educational and training process [35]. Given the amount of data for the successful use of ICTs, in developing the parameters for the formation of practical skills in the application of these innovative technologies should be based on elements of all characteristics of the process, relying on the possibility of their use in the factor of ability to use them and knowledge of how and when they can significantly improve the learning process. In the future, through the created knowledge base on ICT, it will expand it, based on the conditions of the digitalisation of education, by supplementing the personal practical pedagogical practice of each educator where on the line of scientific publications, conference speeches or round tables they will be covered, and thus create environment contributing to the expansion of ICT values in pedagogy [36]. Considering the great potential of ICTs, their introduction into practical education also opens the boundaries for new research topics in a detailed study of each individual technology created, based on the method of its application in practice in terms of its impact on cognitive interest or understanding of the topic being studied. ICT in the classroom will push the boundaries of perception and learners, as ICT elements will transform and create an emotionally positive background for learning the topic through their interesting attributes in use, such as creating 3D projections, teleconference, or accessing information at the global level, which in general will contribute to the quality of teaching services in the process of digitalisation of education as a whole [37].

Thus, the developed model for the formation of professional ICT competence of educators allows them to master the necessary skills for full use of modern developments of information and communication technologies in the educational process, significantly increasing its effectiveness, and thus it can be applied in practice.

Conclusions

Modern trends in the digitalisation of the educational environment dictate the need for implementation of information and communication technology tools with their active use, which can effectively improve the environment of educational services, improving the quality of the learning process, both in class and out-of-school time. In turn, the active and purposeful full use of ICTs requires the necessary level of training in pedagogy to acquire practical skills, and the ability to use them to solve the goals and tasks in educational activities in the study of various subjects and disciplines. The developed model for shaping professional ICT competencies creates the necessary skills for educators to use ICTs in their professional work. The developed model includes the creation of a separate thematic cycle in the study of information and communication technologies as "ICT-supported pedagogical methods", where educators can become acquainted with and learn how to use existing ICT tools, and during the training, they will study their

capabilities, create and examine schemes of their application in various learning situations, which will solve many learning objectives within the pedagogical tool for studying themes, creating a visualisation of the educational process, and developing the skills and competences of educators. The factors described will be developed by both educators and students in the use of ICT by educators in their professional learning activities in the context of the preservation of digital learning conditions and the impact of data on the emotional and cognitive development of all participants in the learning and educational process.

The materials in this article will be useful for all educational personnel, and methodologists; can also be applied in practice, thus contributing to the important tasks of improving and enhancing the field of practical education.

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Conflict of Interest
None.

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Сучасний розвиток педагогів в умовах цифровізації освіти

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Анотація

Актуальність. Актуальність дослідження статті визначається проблемою підвищення якості освітнього середовища шляхом широкого впровадження різноманітних сучасних інноваційних засобів інформаційно-комунікаційних технологій, що дозволить розширити можливості освітнього процесу.

Мета. Метою статті є розробка моделі формування професійної інформаційно-комунікаційної компетентності педагогів.

Методологія. Провідними методами дослідження зазначеної проблеми стали діагностичне тестування "Визначення стилю міжособистісної взаємодії", розроблене С. В. Максимовим, Ю. О. Лобейко, та "Самооцінка професійно-педагогічної мотивації", адаптована Н. П. Фетіскіним, які дозволяють визначити особисту зацікавленість педагогів в оволодінні новими інформаційно-комунікаційними технологіями та використанні їх у своїй роботі з точки зору прояву педагогічної креативної комунікації в межах ефективного підвищення рівня інформативності, доступності навчально-виховного процесу.

Результати. У статті представлено модель розвитку інформаційно-комунікаційної компетентності педагогів у рамках використання сучасних технологій у педагогічній діяльності, яка включає своєчасне вивчення інформаційно-комунікаційних розробок і створення декількох схем їх успішного використання в умовах збереження здоров'язберігаючого навчального середовища, для вирішення педагогічних завдань і вдосконалення навчально-виховного процесу, що запропонована в рамках створення і впровадження в сферу практичної освіти однойменного навчального циклу "Методика викладання педагогічних дисциплін із застосуванням ІКТ".

Висновки. Таким чином, у факторі здобуття педагогічної спеціальності або підвищення цієї професійної кваліфікації педагоги набуватимуть знань і практичних навичок щодо використання у практиці перевірки домашніх завдань, проведення занять, зміцнення інформаційно-комунікаційних контактів шляхом експлуатації існуючих розробок у сфері інформаційно-комунікаційних технологій, що матиме практичне значення у підготовці висококваліфікованих кадрів для освітньої сфери.

Ключові слова: ІКТ-компетентності; інформаційно-комунікаційні технології; сучасна педагогіка; методологія; цифрова освіта.