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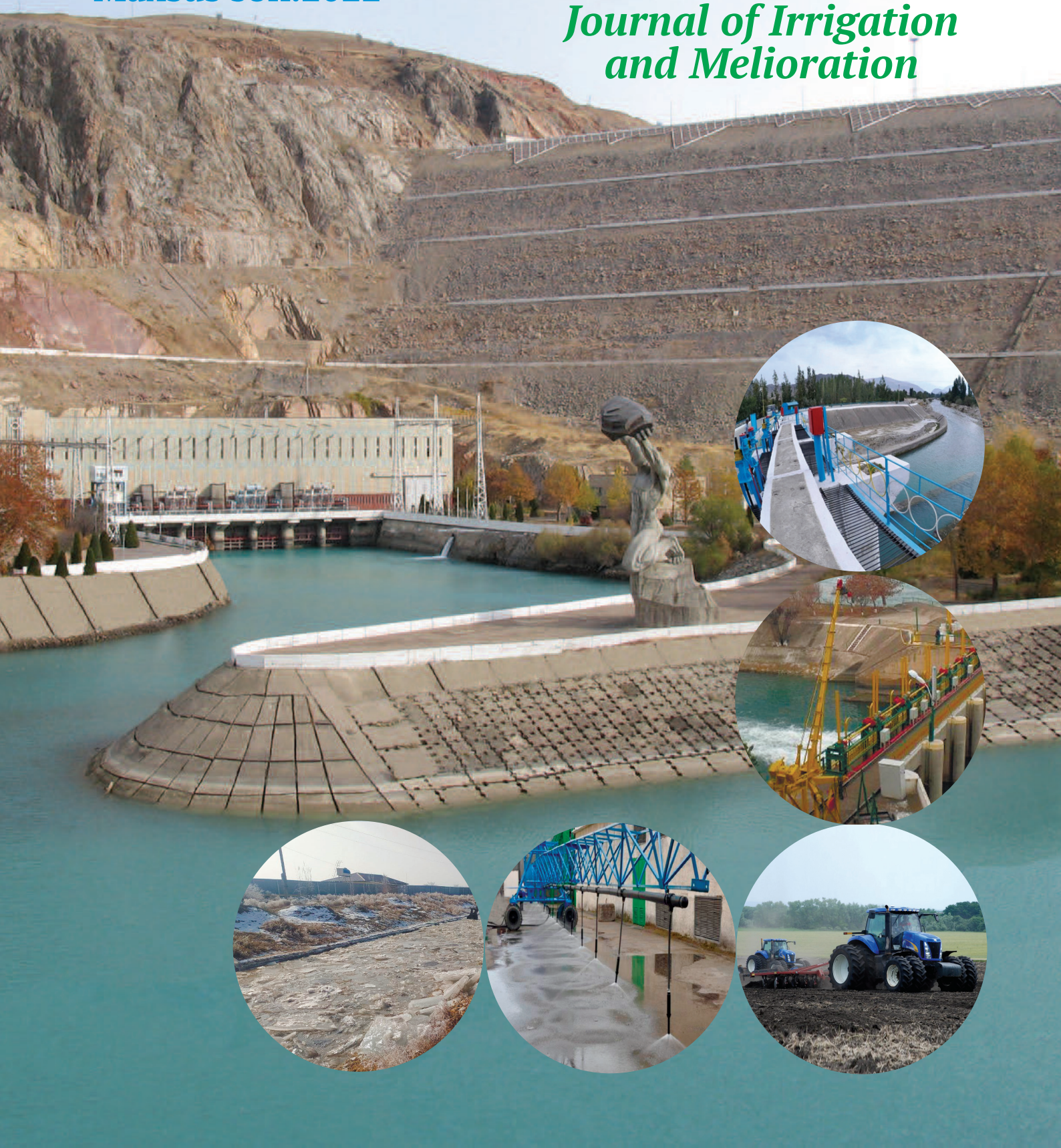

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THE FORMATION OF ICT COMPETENCIES IN TEACHING READINESS LANGUAGE SKILLS AT DIFFERENT LEVELS

G.Eshchanova – associate professor,
National Research University "Tashkent Institute of Irrigation and Agricultural Mechanization Engineers"

Abstract

In the article the development of ICT competencies students is analyzed, which can be considered at different levels, such as on the elementary level, the formation of the skills of the user of a personal computer, e-mail, readiness skills for the formation of ICT competencies for performing practical tasks and compiling theoretical base and on the functional level. The result proves that Ministry of Education has to build an education and training system that will support the teaching ICT as a subject and ICT integration in teaching and learning. Besides that, the formation of skills in working with graphic packages and multimedia, students' communication skills and teacher both within the educational establishment and external communications, internet networks, on the system - the formation of competencies in working with testers programs, electronic resources, application software packages for specialty profile to perform creative tasks using opportunities of the Internet and means of protecting information on personal computer and by network interaction online are also important in this process.

Key words: ICT competencies, personal computer, e-mail, readiness skills, formation of competencies, practical tasks, opportunities of the Internet, electronic resources, creative tasks, external communications, pedagogical technology, competence, vocational education, competency-based approach, pedagogical competence, concepts, criteria and components of pedagogy.

ТИЛЛАРГА ТАЙЁРГАРЛИК КЎНИКМАЛАРИНИ ТАКОМИЛ ЛАШТИРИШНИ ТУРЛИ ДАРАЖАЛАРДА ЎҚИТИШДА АКТ КОМПЕНТЕНТЛАРИНИ ШАКЛЛАНТИРИШ

Г.Эшчанова – доцент,
"Тошкент ирригация ва қишлоқ хўжалигини механизациялаш муҳандислари институти" миллий тадқиқот университети

Аннотация

Мақолада талабаларнинг АКТ компетенцияларининг ривожланиши таҳлил қилинди, улар турли даражаларда кўриб чиқилиши мумкин, масалан, бошланғич даражада, шахсий компьютердан фойдаланувчи кўникмаларини шакллантириш, электрон почта, амалий ишларни бажариш учун АКТ компетенцияларини шакллантириш кўникмаларини ривожлантириш функционал даражада. амалий вазифалар ва назарий базани шакллантириш. Натижа шуни кўрсатадики, таълим вазирлиги ўқув ва тайёрлов тизимини йўлга қўйиш орқали АКТ таълимини қўллаб-қувватлашда билим бериш ва ўрганиш жараёнида АКТни фан ва интеграциясини мужассамлаштиради. Шунингдек, график пакетлар ва мультимедиа билан ишлаш кўникмаларини шакллантириш, талабалар ва ўқитувчиларнинг ҳам ўқув муассасаси ичида, ҳам ташқи алоқаларда, шу жумладан Интернет тармоқларида, тизим даражасида мулоқот қилиш кўникмаларини шакллантиришдир. Шахсий компьютерда Интернет ва ахборот хавфсизлиги воситалари имкониятларидан фойдаланган ҳолда ижодий вазифаларни бажариш учун мутахассислик профилига кўра дастурлар, электрон ресурслар, амалий дастурлар пакетлари тестерлари билан ишлаш ва Интернет тармоғида тармоқ ўзаро таъсирида ишлаш кўникмалари ҳам бу жараёнда муҳим ҳисобланади.

Таянч сўзлар: АКТ компетенциялари, шахсий компьютер, электрон почта, тайёрлик кўникмалари, малакаларни шакллантириш, амалий топшириқлар, Интернет имкониятлари, электрон ресурслар, ижодий топшириқлар, ташқи алоқа, педагогик технология, компетенция, касб-ҳунар таълими, компетенцияга асосланган ёндашув, педагогик компетенция, педагогика тушунчалари, мезонлари ва таркибий қисмлари.

ФОРМИРОВАНИЕ ИКТ-КОМПЕТЕНЦИЙ ПРИ ОБУЧЕНИИ ЯЗЫКОВОЙ ГОТОВНОСТИ НА РАЗНЫХ УРОВНЯХ

Г.Эшчанова – доцент,
Национальный исследовательский институт "Ташкентский институт инженеров ирригации и механизации сельского хозяйства"

Аннотация

В статье сделан анализ развития ИКТ-компетенций студентов, которые можно рассматривать на разных уровнях, таких как начальный уровень, формирование навыков пользователя персонального компьютера, электронной почты, готовность навыков к формированию ИКТ-компетенций для выполнения практических заданий и составления теоретической базы и на функциональном уровне. Результат доказывает что Министерству Образования необходимо построить образование и подготовительную систему, которые будут поддерживать преподавание Информационно Компьютерных Технологий как предмет и ИКТ интеграции в преподавании и изучение. Кроме того, формирование навыков работы с графическими пакетами и мультимедиа, навыков общения студентов и преподавателя как внутри учебного заведения, так и во внешних коммуникациях, в том числе в интернет-сетях, на системную - формирование компетенций в работе с тестировщиками программ, электронных ресурсов, с пакетами прикладных программ по профилю специальности для выполнения творческих задач с использованием возможностей сети Интернет и средств защиты информации на персональном компьютере и при сетевом взаимодействии в сети Интернет также важны в этом процессе.

Ключевые слова: ИКТ-компетенции, персональный компьютер, электронная почта, навыки готовности, формирование компетенций, практические задания, возможности сети Интернет, электронные ресурсы, творческие задания, внешние коммуникации, педагогическая технология, компетентность, профессиональное образование, компетентностный подход, педагогическая компетентность, понятия, критерии и компоненты педагогики.

It is known to everyone for monitoring students at all levels there are particular planned measures to implement the structure and diagnostics in order to determine the level formation of ICT competencies of students during and after studying discipline. Possession of the cognitive component implies: the presence of skills work with operating systems, with professional programs, information resources, didactic opportunities information and communication technologies. Possession of a modeling component implies: the presence of skills work on modeling and designing the content of educational material, self-building the necessary electronic basic professional resources. Owning this component gives the opportunity for teachers and students to use ICT competencies also in the development of didactic and methodological tools for the implementation calculation and graphic, coursework and other types of independent work students. Knowing the system level of the modeling component of ICT competencies, the student can design classes using testing programs, electronic textbooks and various packages professional applied programs.

Ownership of the management component involves: development abilities and skills to use ICT to manage pedagogical process, including the knowledge, skills and abilities of students to use information and communication technologies in educational activities. At selection of educational material should take into account the criteria, components, indicators demonstrating the formation of ICT competencies, respect the basic didactic principles, indicators and principles formation of ICT, factors and methods for improving the quality of education, requirements for the structure of ICT competencies and indicators of maturity pedagogical and professional competence (Fig. 1.).

No	Categories	Skill
1	*Basic*	Can open software, sort and store information on a computer, and can use other simple skills in using computers and other software
2	*Download*	Can download various types of information from the internet
3	*Search*	Know how to get access and information
4	*Navigate*	Able to direct yourself in digital networks, learning strategies for using the internet
5	*Classify*	Able to organize information according to certain classification schemes
6	*Integrate*	Can compare and collect various types of information related to multimodal texts
7		Identify and then choose a representative website address as a source of

Fig. 1. Categories and Skills of ICT levels

While modeling the managerial component of ICT competencies student must take into account all the factors that a professional in his field and a modern specialist must possess information competence, since at present any enterprise uses means of communication both with their employees and between departments and to negotiate with partners. In preparing the ICT structure, the requirements for didactic principles, classification of modules, indicators the formation of competencies. The study provides questioning according to various evaluation criteria. Structure efficiency depends on the consistency of goals with the received or expected results. Pedagogical and psychological justification is needed concepts, diagnostic measures to ascertain the state of the level formation of competencies. Previously listed in the hierarchical dependence means, methods, factors . We can note the close the relationship of the various components and components of the proposed structure, namely organizational and informational interaction teachers and students. To build and implement the structure the formation of ICT competencies, the leading principles were laid down:

- gradual step-by-step construction of the structure;
- consistent increase in the levels of preparedness of students for application of ICT: from cognitive (cognitive capabilities), modeling (technological capabilities), to managerial (controlling capabilities) components;
- criterial construction of the process from the elementary and functional to systemic.

This makes it possible to combine the main structural units of ICT competencies: at various levels, from elementary skills to formation of professional competencies in all of the above components. It is important that in each component there is a consistent improvement of the educational environment, which leads to effective management of the educational process. When implementing this structure, you can build a specific model in which a gradual transition from goal to end result. When designing a structure the factors of using ICT as a combination of information and communication competence. It should be noted that the created structure levels of ICT competencies of college students is designed to help not only in learning process, but also organizationally to manage the learning process . Level structure emphasizes direction the process of training students in the field of ICT and the possibility of their use also in the organization of work with parents and extracurricular work (Fig. 2).

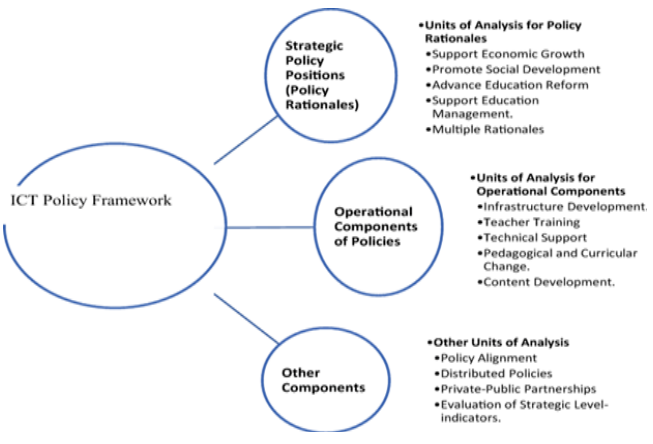

Fig. 2. ICT Policy Framework

Theoretical analysis in the process of studying the educational material of the conditions formation of ICT competencies of college students and the created structure ICT competencies of students provided the foundation for the development of the model the process of forming ICT competencies of students. As a rule, the introduction of innovations in training includes the development

model as a system or algorithm for introducing a certain structure pedagogical process. When developing a model, it is necessary to take into account the whole complex of external and internal influences of the educational process. Based on above the stated provisions on models, modeling, systems, system approach, based on our proposed structure, which consists of three composite components, for the college condition we want to propose a model to implement the implementation of this structure and its further implementation. The competencies under consideration are a complex activity education, including several components and may have different levels of maturity, which will be assessed in resulting module. When forming the cognitive component of ICT competencies, the main goal is to develop students' skills work with basic and professional-oriented ICT, as well as ability to master new knowledge, new ICT.

The specifics of the activity of students in the study of various subjects is that the content,the subject focuses on various types and elements of ICT related to specific professional activity". When forming modeling component, the main goal is the application of knowledge and ICT skills to build work in a professional activities .The purpose of the formation of the management component is implementation of the educational process using ICT, training competitive specialist, as well as the use by students competencies for creative work on the preparation of corrective, testing, guiding and guiding programs, projects. While creating a model of the process of forming ICT competencies students, we relied on didactic principles that are determining in the selection of the content of education, in the choice of methods and forms of education. The proposed model complements and specifies the algorithm actions for all components and levels, which will give sequential step-by-step construction and design of the information and communication environment using the previously discussed methods, tools, criteria, indicators, indicators of the formation of ICT competencies. Didactic principles of the formation of the cognitive component:

- designing individual educational strategies,
- the priority of self-study,
- contextuality of informational learning,
- the principle of relying on the experience of trainees,
- updating learning outcomes,
- optimal learning conditions.

Didactic principles for the implementation of the modeling component ICT competencies of students in the process under consideration are generally accepted in pedagogy: the principle of continuity and practice-oriented education. Also at this stage of creation considered model, we relied on the principles generally accepted in androgogy.

- the principle of updating the results, which implies urgent application of acquired competencies in practice;
- the principle of joint activity provides for joint activities of the teacher and students, students and IT teacher.

The created system provides professional growth and professional development of students. Principles for the implementation of the created models at the stage of formation of the managerial component of ICT competencies, activity approach, personal activity of the student, differentiation of proposed tasks, forms and methods of using ICT when conducting classes in special disciplines.

Specification of goals and principles made it possible to define modules model being developed: basic, practical, effective, reflecting the content, organizational forms, methods and means training and control over the educational process, in the aggregate ensuring the achievement of the goal - the formation of ICT competencies of students.

Result:

- formation of knowledge, skills, experience in the conditions of informatization education and society as a whole, sufficient for the implementation professional activity;
- formation of professional characteristics of students, including ICT competence;
- preservation, development and effective use of pedagogical the potential of a secondary vocational institution;
- creating conditions for a phased gradual transition based on modern information technologies to a new level of education.

The process of forming ICT competencies of students within the framework of the models should be continuous, based on experience teacher. The content of the process of forming ICT competencies students in the basic module are presented in accordance with the levels: elementary, functional, systemic. At the elementary level, the following sections are included: software software, evolution and classification of operating systems, text and GUI, email, message format, threats information security.

The cognitive component involves knowledge of the capabilities of the named programs, the ability to work with them:

- creation of multi-level catalogs for information storage;
- creating, editing documents in a text editor;
- formatting and calculation in spreadsheets;
- Knowledge of information protection methods, anti-virus tools, archiving;
- knowledge of the purpose, capabilities and algorithm of working with electronic mail.

The simulation component assumes simulation professional activities of students using the program content:

- creation of an electronic journal or information database for storing student information;
- preparation for the classes of didactic material made by by means of Word: task cards, abstracts, questionnaire sheets;
- preparation of methodological material by means of Word: manuals, problem books, guidelines for practical work, graphics conducting classes.

In the age of information, the possession of a teacher and students of information technology becomes a necessity. The task of the educator is to help everyone become more knowledgeable and resourceful, effectively manage their life trajectory, enjoy a full and rich life, grow professionals who can use ICT to work with information that contributes to solving problems and generating new knowledge. Pedagogical technology is the organization of the learning process to obtain and transform information. Therefore, this technology, together with computer technologies and means of communication, will be called ICT (Fig. 3).

According to the UNESCO recommendations emphasis "the modern teacher it is not enough to be technologically literate and be able to form relevant technological skills and abilities in their students. The modern teacher must be able to help students use ICT in order to successfully cooperate, solve emerging problems, master the skills of teaching and, as a result, become full-fledged citizens and employees".

Pedagogical skills of a teacher who owns advanced pedagogical technologies, which is ready for use various innovative teaching methods, will allow you to fully use ICT and effectively train the student as a professional apply existing knowledge and reproduce new, necessary and corresponding to new conditions, when the process of emergence of new knowledge and innovative technologies is a complex, lengthy process.

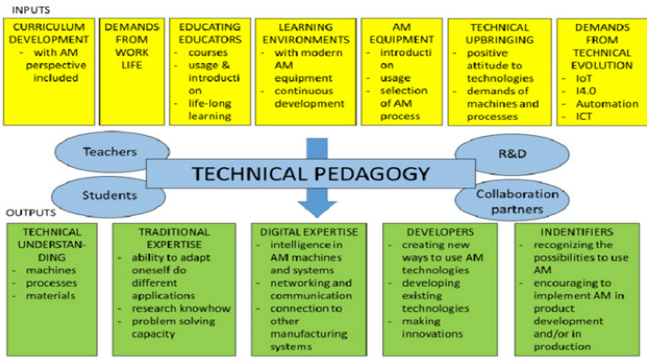

Fig. 3. Technical pedagogy

Formation of information and communication competence students is a difficult task. To solve this problem, you need special scientific and pedagogical research and significant organizational and methodological restructuring of the educational process. Employment is a problem for college graduates. For solving this problem, the system is currently being modernized technical and vocational education, a new system is being introduced management, and the main task in it is the employment of students. "Quality vocational education today is a means social protection, guarantee of stability, professional self-realization of a person at different stages of life. The professional development of teachers of special disciplines and masters of industrial training abroad. In the republic there was a need to revise the criteria and approaches applied to analysis of the situation in the field of education". Search for effective forms training of vocational personnel is carried out not only in individual countries, but also in the world. "The importance of the connection between education and science, education and manufacturing enterprises were emphasized as an important ones. Its feature lies in the fact that most of the training is not carried out in an educational institution, but on enterprise" In this study, "the structure of ICT competencies of students presented in the form of a conceptual diagram of the process of information training of teachers capable of modeling and designing educational process at the present stage of education, in the context of training future ICT-savvy professionals in order to their application in future professional activities, which reflects the purpose educational process - improving the quality of professional education. The requirements of the time - the teacher is required to continuously improving their professional capabilities and competencies possession of modern pedagogical and information technologies, to improve the education system in the modern information society, along with new opportunities associated with the use information and communication technologies (ICT)" (Fig.4.)

Over the past few years in the scientific and pedagogical literature a number of publications have appeared analyzing various aspects of the system school education. Analysis of the state of educational technologies in our republic showed that its "relevance of the process of searching for new approaches and changes due to a number of reasons:

- insufficient knowledge of the prerequisites and patterns of its

formation of education at each stage:

- lack of comparative studies in this area;
- insufficiently thought-out rationale for the development of education at the present stage;
- the importance of studying the positive experience ;
- an objective need to use the experience of modernizing systems

general secondary education.

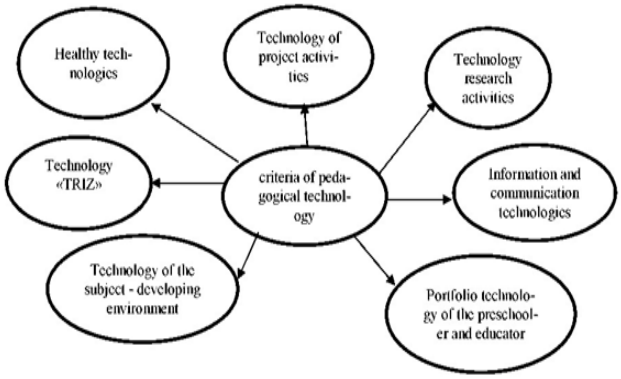

Fig. 4. The main criterias of pedagogical technology

Use of information and communication technologies (ICT) in the educational process are considered in pedagogical research based on materials on the use of computer technology.

Information competencies:

- have the ability to work with various sources of information, catalogs, reference books, textbooks, books, the Internet;
- the ability to search, extract, systematize, analyze and select independently necessary information for solving educational problems;
- orientation in information flows, the ability to highlight the main things in them and necessary, to consciously perceive the information disseminated by media channels;
- possession of skills in the use of information devices: computer, TV, tape recorder, telephone, printer;
- application for solving educational problems of information and telecommunication technologies: audio and video recording, e-mail, Internet.

Communication competencies:

- the ability to present yourself orally, in writing, write a questionnaire, application, letter;
- the ability to represent your class, school, family;
- Possession of methods of interaction with others and remote people and events, speeches with oral messages;
- possession of different types of speech activity (monologue, dialogue, reading, writing);
- possession of methods of joint activity in a group, techniques actions in social situations.

Common information space, where there is a set of banks and databases, technologies for using information telecommunication systems providing information interaction between organizations and citizens has become an important and integral environment human communication.

"Satisfaction of information needs is a means, through which society can recognize itself and function as a single whole. Therefore, under communication literacy should

understand the ability to navigate in the information space and use ICT tools to share information while maintaining social and professional contacts". "The list of knowledge, skills and abilities included in the concept information and communication literacy" :

- terms, basic methods, means and possibilities of information

technologies, communication tools ;

- processing of text documents, graphic objects, spreadsheets

data based on ICT tools, skills of working in the operating system, in

local and global networks ;

- identification of necessary sources, access to information; skills

store, analyze, evaluate, interpret, create, represent information.

Competence - readiness to solve professional problems and achieving the goal, using all kinds of resources: knowledge, skills and experience, methods of activity and effective organization. A student who has qualities that allow you to successfully cope with the decision on your own educational and professional tasks, possessing the skills to use information devices and communication techniques, has key competencies that form a competitive specialist.

It should be suggested the definition by J.Raven, that "Competence is the specific ability required to effective performance of a specific action in a specific subject area and includes highly specialized knowledge, subject skills, methods thinking, as well as understanding of responsibility for one's own actions. Possess a set of specific competencies at different levels, be knowledgeable in a subject, to have a definite opinion, independently ask questions, write business letters, deal with interpersonal conflicts, etc., this is what it means to be competent."

In conclusion, it can be suggested that the management component at the elementary level involves management of the pedagogical process through: control over the implementation of creative tasks performed by students using ICT tools; exchange of information with colleagues and students by e-mail and others.The functional level corresponds to the following content: graphic programs, multimedia technologies, Internet technologies and others.

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