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INTERACTIVE TECHNOLOGIES OF TEACHING

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The state language – the means of making linguistic communication of local people having been living in that country. It has been one of the most important purposes of society educating linguistic personality mastering Kazakh language fluently, having had rich spiritual world, individual image having been formed, with high intellect and deep knowledge, getting quickly adapted for changeable situation according to universal direction of informative society condition.

Keywords: teaching, direction, language

Maintaining languages of all ethnos living in our country, as an important factor of developing the unity of nation purposes and objectives of harmonizing linguistic politics that provide wide usage of state language concretely have been put in the state program dedicated to 2011–2020 years developing and using languages in the Republic of Kazakhstan and types of work had been defined according to directions given below:

- direction of mastering the state language;
- direction of using the state language by people and enriching the usage area of it;
- direction of enriching the level of linguistic culture of Kazakhstan people;
- Direction of making convenient conditions to develop linguistic capital [1, 3–5].

The future of our country is related to paying attention to the education of loungers having the highest humanism, being patriot of his nation on national basis and mastering the word culture of Kazakh language. The problems of enriching the usage area and developing the status of state language have been continuously discussing for several years according to the direction of mastering the state language and having been used by nation and directions of enriching its usage area.

Mainly, the development and usage of state language in Kazakhstan is closely related to mastering linguistic communication between people and nation. The state language provides mutual relation, unofficial, official comprehension, discussion and mutual relation making communicative-social activity. So, the usage of state language is put in right way when it is directed to speaking activity, mutual comprehension and discussion.

The innovative technologies of getting knowledge require deep theoretical, psychological and methodical knowledge, pedagogical skill, and deep comprehension of spiritual world of students. Innovative technologies are related to the effective usage of interactive methods of teaching. Interactivity (English interact – mutual action) means being in

dialogue relation or the possibility of mutual action. The technology of interactive learning is aimed at organizing in interactive activity step of linguistic relation between the learner of the language and teacher, the learner of the language and learner.

As a result of discussing the definite theme the language learners learn making interactive activity in any linguistic environment, comparing parallel outlooks, solving complex problems on the basis of analyzing definite situation and information, critical thinking.

The technology of interactive learning follows the direction of developing communicative-cognitive competencies in mastering Kazakh language to foreign students. The interactive learning of Kazakh language is characterized on the basis of harmonizing emotional and spiritual values, united effective work of one direction of joint relation of subjects. The technology of interactive learning is used according to the aim in mastering Kazakh language to the students intensively, that is to say, quickly. While comparing with traditional objects of mastering the language, educational process is organized by turns between the teacher and language learner in interactive learning technology: activity of teacher of the language gives place to the activity of the student of mastering Kazakh language. The level tasks proposed by teacher are the condition makers to their initiation.

An individual, pair and group work directed on making interactive activity in linguistic lessons have been organized, interactive games have been used, and the work has been done with documents and various information. The technology of interactive learning develops the result of using it effectively in linguistic communication and mastering the linguistic units by learners through the guidance of planned organization of the teacher. An innovative educational work is concluded with entering educational technologies adapted to getting knowledge to education process.

They are – the innovative technologies such as cable and satellite TVs, videoconferences, TV forums, TV non-stop charitable show, portfolio, trainings in formation of living habits in educational process, including social education and other individual achievements.

Interactive teaching is organized as a type of group and pair works with the students of foreign language learners. While using interactive methods in linguistic lessons the learner students are divided into two or four group, and the teacher organizes conducting the discourse according to definite linguistic situation of each group. The third or fourth student can take part in mutual discussion of two student, and the attention is paid to the organization of the discussion in an interesting and funny way. The students of next group can ask and propose their own questions and make proposal according to the theme. So, the dialogue can be changed to polilogue. The organization of relation develops the speaking culture of foreign students in Kazakh language by this method, helps to ease the difficulty of mastering the language.

Teacher can do individual work with each student to improve Kazakh speaking culture of foreign students in educational group. The reason of this is that each language learner has the individual level tasks that show the result of learning Kazakh language. The mastering level of the learners is different. The technology of interactive learning teaches to master Kazakh language together for the students. The interactive method of didactics provides being in respectful and friendly relation of foreign students with each other. The students master Kazakh language effectively, interestingly and easily while working together in pair and group relation.

The teacher acts as an organizer, controller of didactic work mastering the state language by interactive technology, and the activity of learner students would be at higher level. While teaching interactive activity, even if we know that the foreign students can not speak Kazakh language, an attention must be paid to the activity of students. The conditions of formation of interaction among subjects had been defined in improving Kazakh word culture of learner students.

The content of the theme is chosen according to the program in making the system of interactive activity. The aims are defined according to the content of the theme. Planning the work, dividing the task, controlling the action of students, evaluation.

The purpose of interactive participation – to make a condition to mutual united action in all levels of process of formation of Kazakh

word culture of foreign students. Considering psychological and pedagogical peculiarities of each student in educational group, giving them a work with separate level tasks, an attention must be paid to develop friendship relation and organization of separate group in educational group.

Not only the grammatical structure and vocabulary of the language had been put in organizing the Kazakh word culture of foreign students, also the educational purpose is put on the culture of Kazakh thinking (comprising the text) in interactive activity. Teaching the state language by interactive technology from communicative-cognitive side provides the possibility of mastering Kazakh language intensively, coordinating innovative technologies at present time.

Communicative-cognitive, linguocultural and social-individual competencies of foreign students have been formed by interactive learning technology of Kazakh language. The organization on the basis of didactic and psychological requirements of interactive learning technology of Kazakh language for foreign students is according to the mastering skill of method of group interaction of the teacher. The model of interactive learning: *methods of problematic work, presentation, group work, method of consciousness, method of thinking from the point of critics, role games, business games, training etc.*

The technology of interactive learning is aimed at organizing in interactive activity step of linguistic relation between the learner of the language and teacher, the learner of the language and learner.

As a result of discussing the definite theme the language learners learn making interactive activity in any linguistic environment, comparing parallel outlooks, solving complex problems on the basis of analyzing definite situation and information, critical thinking.

Types of separate, pair and group work directed on making interactive activity in linguistic lessons have been organized, interactive games have been used, and creative work with documents and various information have been done.

The system of interactive learning (developing the highest activity) is the educational process organized by active participation of language learners in educational group. In order to make interactive activity using the interactive learning technology in mastering Kazakh language to foreign students the linguistic situations had been analyzed and entered into working educational program.

While mastering Kazakh language by interactive method learner student feels

himself free and strong. His interest would be increased to national traditions-customs, history and social-life condition of Kazakh nation by mastering Kazakh language. The linguistic, communicative-cognitive, linguo-cultural and social –personality competencies of learner students have been formed in interrelation.

- Foreign learner students get accustomed making interactive activity on the basis of pair and group work. In interactive activity the learner of the language learns to accept group decision by discussing, showing mistakes and admitting, proving own opinion.

- The learner student masters the habit of evaluation and controlling of own level of

knowledge comprehending in what level of linguistic situation he can make speech.

- The interactive learning technology teaches for the students to solve the problem together. United work would have been developed to higher rate discussing it together in mastering Kazakh language to foreign students.

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FAIRY TALE AS EFFECTIVE MEDIUM FOR LEGAL EDUCATION OF STUDENTS IN ELEMENTARY SCHOOL

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The article illustrates the urgency of legal education in the process of state development, intended to guarantee law compliance as well as to protect citizens' rights and equality. Accounting for the fact that value orientations of a human being are largely formed at the age of 6–10, it is imperative to establish proper foundation in order to ensure that an individual learns to respect the law. Fairy tales do not merely portray people's wisdom, deep morality and ethics originating from ancient times; they also serve as means of forming students' representations about the rights of a child, legal consciousness and behavior, adequate perception of laws and proper attitude to them. The analysis of the fiction literature dealing with violations of the rights of the fairytale characters allows explicating the articles of the Universal Declaration of Human Rights and the Convention on the Rights of the Child for younger students in an accessible form.

Keywords: The Universal Declaration of Human Rights, The Convention on the Rights of the Child, legal education, fairy tale, rights of the child, elementary school

The urgency of implementing purposeful and effective legal education of citizens, which is premised on the formation of humanistic and democratic legal culture of the personality, is chiefly determined by the needs of the state, society and individual. In this respect, it is directly related to the processes which are typical for Kazakhstan and which constitute its long-range programme of development.

The Address of the President of the Republic of Kazakhstan N.Nazarbayev to the nation "Kazakhstan's way – 2050: common aim, common interests, common future" indicates that our forthcoming direction is intertwined with the creation of new opportunities to realize all potential of Kazakhstani citizens. The definition of a developed country in the twenty-first century connotes active, educated and healthy inhabitants. The head of the state has outlined long-term priorities and strategies, one of which puts forward the creation of the atmosphere of fair competition, justice, observance of the law and high legal culture [1].

In the law "About education" one of the main principles of state policy in this particular realm is to respect human rights and freedoms (ch. 1, art. 3). The development of modern society has a dynamic character; accordingly, the essential factor of the education system (ch. 3, art. 11) is educating the person to exercise active citizenship, creating the necessity to participate in political, economic and cultural life of the country, and constructing a conscious attitude of an individual to his or her rights and responsibilities [2].

Primary school is endowed the function of initial legal educator and, therefore, pays great attention to setting down the fundamental basis for the legal culture of residents. This constitutes a significant component of the state's policy.

Legal education and training are closely interrelated with one another. Training encompasses purposeful formation of the individual consciousness characterizing a law-abiding citizen,

including legal knowledge, moral ideals, legal settings and value orientations. Legal education and training perform one part of the whole process of the spiritual formation of a person, which is impossible to dispense when implementing the idea of building a democratic state.

Fairy tale is one of the most effective means in raising the students' legal consciousness and forming elementary representations of their rights and freedoms. According to I.V.Dubrovina, the attractiveness of fairy tales for the development of a child's personality is based on the following:

1. The lack of direct moralities and edifications. The events of a fairy tale are logical and natural. They follow sequentially and the child internalizes the cause-and-effect relations that exist in the world.

2. Through images, a child comes in contact with life experience of a previous generation. Fairy plot includes some situations and complications which any person can encounter in life: separation from parents, life choices, mutual aid, love, struggle between good and evil. The triumph of good in fairy tales provides psychological protection: no matter what happens in the story, – everything comes to a good ending. Severe tests that befall the heroes help them become smarter, kinder, stronger and wiser. Consequently, the child understands that everything that happens in a human's life promotes internal growth.

3. There is no specified name of the protagonist or the designation of certain places of fairy events. The protagonist is a collective imagery; a child can easily identify himself or herself with a hero of the tale and become a member of the fabulous events.

4. An aura of mystery and magic, an intriguing plot, an unexpected transformation of heroes allow perceiving the information contained in fairy tales lightly [3].

Pedagogy responds to the tales not only as educational and training material, but also as a

pedagogical tool or method. So, an unknown author of the article "The educational value of fairy tales" in the monthly pedagogical paper "Education and training" (№ 1, 1894) writes that "if you repeat a thousand times the same moral maxim to the children, it will remain a dead letter for them, but if you tell them a story, imbued with the same idea – the child will be thrilled and excited by it" [4, 121].

Any fairy tale is oriented toward a social and pedagogical effect: it teaches, trains, warns, educates and encourages the activity. The story is simple, mysterious and from the first words "There was once..." "Once upon a time...", "There once lived...", "Long time ago..." has a magnetic force which conduces for the child to dream and fantasize; at the same time, it broadens the scopes of simple life and in available 'fairy' form introduces him or her to an adult world of feelings and emotions.

Social (legal) norms as well as knowledge about society can be fixed in the children's memory via tales. The legal options of behavior are installed along with the norms of moral (what is good and what is bad), instill the concept of what is sure to be done ("obligation"), what is allowed to do ("possibility"), what is forbidden to do ("prohibition") and what is indifferent to society, that is giving one a right to decide on his or her own. The contents of legal and moral norms, comprised in fairy tales, impact the students' mentality and influence their behavior.

The process of instructing the foundations of the lawful behavior for primary students must pass purposefully and systematically through the gradual mastery of the basic concepts of law. During the extra-curricular activities, the teacher introduces his or her students to the human rights – the right to life, the right to liberty, the right to freedom of opinion and expression, the right to education, the right to rest and leisure and others – while making a move through the wonderful fairyland, he or she relies on the theoretical foundations such as international acts: The Universal Declaration of Human Rights [5], The Declaration of the Rights of the Child [6], The United Nations Convention on the Rights of the Child [7].

Fairy tales serve as illustrative examples representing this or that right or notion. A teacher passing the content of articles of legal documents to students should rephrase the language of legal texts in accessible language for their clear perception and understanding. Therefore, hard work of the teacher is required to adapt and interpret legal information for small students. These examples of fairy tales can be effectively used as illustrations of the declared human rights.

The Declaration of the Rights of the Child proclaims that children have the right to live a full life (art. 6) and The Universal Declaration

of Human Rights announces that everyone has a right to life, liberty and security of person (art. 3). Little children can better appreciate and comprehend the meaning of legal articles, namely, that nobody has a right to encroach on human life and health by the example of the heroes of the following tales "The rolling roll" ("The Gingerbread Man"), "The Wolf and the Seven Young Kids", "Three little pigs", "Snow White and the Seven Dwarfs" by the Brothers Grimm, "Little Red Riding Hood", "Puss in Boots" by Charles Perrault, "The Tale of Tsar Saltan" by A.S. Pushkin.

The tales "The wooden house", "Hare's small hut", "Cat's house" by S.Marshak acquaint children with the right to inviolability of residence (art. 12 of the Universal Declaration of Human Rights, art. 16 of the Convention on the Rights of the Child). The contents of the stories A.N.Tolstoy's "The Golden Key, or the Adventures of Buratino", P.P.Ershov's "The Little Humpbacked Horse", Charles Perrault's "Puss in Boots" exemplify the right to own property (art. 17 of the Universal Declaration of Human Rights).

After reading the tales "Cockerel and the Beanstalk", "Doctor Powderpill" by K.Chukovsky, a teacher can tell the students about the human rights to the provision of necessary medical assistance and health care which are enshrined in art. 25 of the Universal Declaration of Human Rights, art. 24, par. 2 of the Convention on the Rights of the Child.

The human right to education (art. 26 of the Universal Declaration of Human Rights, art. 28 of the Convention on the Rights of the Child) is reflected in such works as "The Tale of Lost Time" by E.L. Shvarts, "The Golden Key, or the Adventures of Buratino", "About a kid who knew how to count to ten" by A.Preysen, "Adventures of Cipollino" by J. Rodari.

The main characters had a nickname in the fairy tales of Hans Christian Andersen "Thumbelina" and Charles Perrault "Cinderella" and, in accordance with the Convention on the Rights of the Child (art. 7), the child has a right to a name.

The article 5 of the Universal Declaration of Human Rights and the article 19 of the Convention on the Rights of the Child proclaim that no one shall be subjected to torture or to cruel, inhuman and degrading treatment or punishment. The heroes of the tales "The Golden Key, or the Adventures of Buratino", "The Tale of Tsar Saltan", "Three little pigs", "Adventures of Cipollino" and others expose these problems.

The violation of the right to rest and leisure (art. 24 of the Universal Declaration of Human Rights) is well illustrated in the story "Cinderella".

The heroes of "The Town Musicians of Bremen" by the Brothers Grimm, "Frog traveler" by V.M. Garshin, "Thumbelina", "The Rolling Roll" ("The Gingerbread Man") used the right to

freedom of movement and residence (art. 13 of the Universal Declaration of Human Rights).

The articles 1 and 2 of the Universal Declaration of Human Rights say that it is necessary to educate students a sense of justice and kindness to other people. They also state that all human beings are born free and equal in their dignity and rights, and all people should treat each other as brothers. However, the fairy tales portray an opposite scenario when in "The Ugly Duckling" by H.Andersen the dwellers of the poultry yard offended the ugly duckling, and the brothers ill-treated Ivanushka in the fairy tale "Sivka-Burka".

I. Volkov's work "The Wizard of the Emerald City" can serve as a brilliant example of the human right to freedom of peaceful assembly and association (art. 20 UDHR). Written in the genre of the fairy tale, it traces how friendship (union) between different creatures helps to resolve numerous problems and struggle against difficulties and dangers. A similarly parallel can be drawn in the fairy tales "The Turnip" and "Different wheels" by V.Suteev and others.

The teacher should use the episodes from the book of Astrid Lindgren's "Karlsson-on-the-Roof" and Russian folk tale "The frog-Prince" in which Ivan Tsarevich has burnt the frog's skin to study the rule laid in the article 12 of the UDHR. It highlights that no one shall be subjected to arbitrary interference with his or her privacy and family.

In the fairy tale written by H.Andersen "The Emperor's New Clothes" the boy was not afraid to tell the truth to the king, thereby expressing the right to his own opinion. The child may express aloud, write and even print what he or she thinks (art. 13 of the Convention on the Rights of the Child) but there are some restrictions, i.e. he or she must respect the rights and reputation of other people.

The Queen of the tale "Alice in Wonderland" by L.Keroll ordered "Off with her head! Let them pass the sentence, if she is guilty or not – then we shall understand!" According to article 11 of the Universal Declaration of Human Rights "everyone has the right to be presumed innocent until he is proven guilty according to law in a public trial". Any person in the court must have the defender (barrister), who ensures the protection of the human rights. Art. 37 par. d of the Convention contains the rule stating that "Every child deprived of his liberty ... has the right to challenge the legality of the deprivation of his liberty before a court".

Among the following fairy cases, that is when a big green toad kidnapped Thumbelina in the tale written by H.Andersen or the Snow Queen abducted the boy Kai, or when the crime was committed by geese in the tale of the same name, having stolen Alyonushka's brother, the art. 35 of the Convention on the Rights of the Child is vividly violated, given that it proclaims

that "the State shall take all appropriate measures to prevent the abduction of children".

Parents play a primary role in the life and education of their children. Consequently, they have great responsibility for them (art. 18 of the Convention on the Rights of the Child). Every child has the right to appropriate conditions for his or her full development, upbringing, education, health promotion and preparation for independent life in the family and society. Responsibility of the family for the child is illustrated in the works of D.N.Mamin-Siberian's "Grey Neck" and S.V.Mihalkov's "Feast of disobedience".

Mowgli and Kittens, the characters of the tales ("The Jungle Book" by Rudyard Kipling, "Cat's House" by S. Marshak) who were left without parental care, should be entitled to special protection and assistance provided by the State (art. 20 of the Convention on the Rights of the Child).

Tales exciting the children's mind, heart and imagination will help them understand complex situations, boost their sensitivity to good and bad and encourage finding the right answers to difficult ethical questions.

Every tale ends well, good triumphs over evil, human rights violations are eventually punished because there is always a defender or a hero who advocates his or her rights himself or herself or looks for protection from the strongest. Students should be aware that they are entitled to special care and assistance from parents, schools, guardianship authority and state.

Thus, fairy tales are the real encyclopedia of the past, present and possibly future, they are an effective tool in the education of citizens of the legal, democratic state, who are capable to socialization and respectful of the rights and freedoms of the individual; who have rectitude and show ethnic tolerance and profound regard for languages, traditions and cultures of other nations.

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PSYCHOLOGICAL CONDITIONS AND MECHANISMS OF PROFESSIONALISM OF HIGH SCHOOL TEACHER

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Profession of high school teacher belongs to one of the most complex, intelligent, responsible and creative spheres of human activity. In this profession find themselves and realize the people who aspire to knowledge, innovation, creativity. Attractiveness of higher education and the fact that it is a good cultural environment for personal and professional growth and self both students and teachers themselves. Obvious distinguishing features of this environment are, firstly, the active processes of integration of Russia into the world of education and educational information space; secondly, the need to comply with the quality level of training graduates, and, above all, the universities of Russia, the level of world-class quality. Thirdly, the urgent need for the professionalization of the teacher of high school as a key figure in the training process, continuous improvement and higher levels of professionalism. Listed is characteristic not only for higher education in Russia, but also for the European education.

Keywords: high school teacher, education, knowledge, innovation, creativity, university

Socio-cultural mission of universities

Understanding the nature of the activity of university teachers stems from the very essence of reason and purpose of higher education, especially university education. According to UNESCO, in the next 30 years will receive a university education more people than ever before in the history of civilization. [5]. University education, in turn, is associated with the idea, the concept (or, as the ancient Greeks, *eidos*) of the University as a “living mirror” of the universe [4, p. 27], and as a “natural phenomenon noosphere” [6, p. 27]. However, the idea of the university for centuries understood as a concrete historical, which led to the existence of different models of the university with a predominance of one or another valuable reason one or another functional dominant their lifetimes [2; 8].

To date, the idea of the university has overcome time and national orientation and acquired universal civilized character [8]. At the same time constant, in our view, continued and continues to be very multifunctional socio-cultural mission of the university, which is to store, produce, broadcast and reproduce scientific knowledge as a form of existence of intellectual culture, which is designed to comprehend the truth and the laws of existence. Since the introduction in Europe in the Middle Ages the first universities were already amazing sources of novelty: first arose institutions cultivating pure knowledge. At the same time, as the historical role of the university researcher Vice-Chancellor of Kingston University (England), Peter Scott, the University has always combined the contrast as an institution of stability (or save) and as a development institution (or innovation). Exclusivity mission of the university and to date is to support innovation while ensuring consistency, academic order and stability in society. Of all the institutions ever created by man, it is difficult to think

of any other, as open, creative, liberated simultaneously stable dynamic public institution, which has always been a university [7, p. 6–8]. Obviously, it is a cultural component of university space Truce mystery of this constancy.

Solving the three-pronged challenge of simultaneous implementation of research, cultural-educational and educational functions, the university is today simultaneously in scientific, cultural and educational institution, combining scientific, cultural and educational space.

On the role of universities in the life of entire nations is the fact that some of them have become characteristic national symbols. This is the University of Bologna in Italy, Charles University, the Sorbonne in France, Oxford and Cambridge in England, the University of Moscow in Russia. These universities – symbols of cultural consistency and intellectual potential of the country, as they place the crystallization of culture where grown intellectual, scientific, cultural and professional elite of the nation. Elite, which is usually a personal carrier of university knowledge, national identity and mode of life. Young (new) universities are encouraged to develop traditions and achievements of universities and university characters form an increasing number of those wishing to do more culturally-oriented, knowledge-based and regional educational technology and industrial-economic space. It is understandable why in Russia, and in Europe (Figures are similar) people with higher education, leaving a quarter of the number of workers to produce more than 50% of the surplus product [6, p. 8]. Currently, the role of universities as strategically important scientific and educational centers of life of individual countries increases dramatically with the advent of the globalized world. Experts define globalization as a process of worldwide division of labor between the cheap mass production and high technology and innovation. It is no exaggeration to say that in

the era of globalization, our country's future is inextricably linked with the role to be played by universities, university science and education in the life of Russia.

Key trends in the modern higher school education

Key trends in higher school – a new type of university – “problem-oriented” or “innovative” universities to prepare individuals and teams can design new activities and ensure the transformation of existing cooperatives, industries and territories in accordance with the challenges of the time. Demand for professionals worldwide to be able to think outside the existing conventional notions; solve problems, still did not have solutions; practical action, taking responsibility for the project and the team in a situation of uncertainty, limited resources and personal risk; prove its effectiveness with real achievements and results. It is for these types of professionals have a fierce competition in the international intellectual level [1]. However, it is impossible to deny the importance of the existing formats of higher education. Updated classic universities will continue to be at the core of professional education in the Russian and European space of education. Reproduction of its personnel, research, intellectual and cultural potential, ie personnel training and education “carriers” of university knowledge, identity and mode of life – one of the most important functions of universities. And it was at the university, where, relatively speaking, all at your fingertips, so the best option possible organization and substantive content of educational space, which can provide a “translation” of science as a form of intellectual culture in the individual form of existence. It is in this process – the process of internalization of culture in its various forms and aspects – most pronounced essence of university education. This explains why the meaning and importance of university education for a single person – in the birth of personal meanings and education on the basis of their values, and thus to create optimal conditions for the building, and personal fulfillment of person.

In scientific schools gnosis and praxis – are inseparable aspects of life, where people learn to be, not only to know what is possible only with the direct translation of knowledge from teacher to student in the process of interpersonal communication. According to V.I. Zinchenko, personal communication makes contact not only knowledge but also personal-assigned values of communicating. [3]. This transmission of culture through the reproduction of personal experience in the context of student self-realization, the image

of the world, filled with not so much as the sum of even very many subjects as examples of moral behavior and human values. This explains why the meaning and importance of university education for a single person – in the birth of personal meanings in education and on the basis of their values, and thus create the conditions for creativity, and personal fulfillment.

They say that genius – a nation in one person. And if scientific school – it is a virtual matrix of educational space university, then ideally, each of its graduate – a hologram of the University, the University rolled into one. Similar results of the teacher teaching impossible for mass flow-conveying training or closer to the hand, “piece” master production of his masterpiece, in which his soul will live.

Obviously, distance learning has gained strength will be the mass higher education (its horizontal operation), whereas universities – its vertical, depth, elitism, personal, professional formation and development of the students. Cultural and scientific heritage, stored and broadcasted universities, has always been one of the means of education patriotism and integration of the individual in the national world culture. Despite the hard times being experienced by Russian education, universities thanks to their traditions, scientific schools, the nature of personal interaction between participants of cultural and educational space satisfy the requirement represent one of the most ideal form of society which is conceivable only in modern conditions [4].

Psychological conditions and mechanisms of professionalism of high school teacher

University lecturer – a key figure in the implementation of social and cultural mission of the University. The lecturer is responsible for the professional quality reproduction of scientific personnel and personal capacities, the transfer of research traditions and culture of self-determination of the next life generation of scientists and specialists. It is quite obvious that the activities of a university lecturer refers to one of the most complex and demanding areas of intellectual and artistic life of people. This topic is relevant for the understanding of the professional work of the teacher in the context of significant intellectual challenges inherent in university education.

Obviously, for the implementation of its professional teacher must have a wide variety of abilities: intellectual, pedagogical, reflexive, organizational-activity, management, communication, etc. It is also clear that the aforementioned abilities are not only

key, but also the universal teacher for each of the higher school of the European educational space.

Improving own professional pedagogical activity high school teacher shall, as a rule, based on the reflection of their own activities, results, knowledge of methodology and methods of systemic psychological and educational research educational space, the subject of which he is the activity.

As for the aspect of the investigation of value bases its activities, there is a basis for such a reflection of values can serve as languages of national cultures, which are intended to comprehend the spiritual reality of the value of the inner world of man. There is no doubt that the very spiritual practices rooted in the national culture, if the base teacher deepen his inner world of thought and give the means for its attainment.

That possession natural and artificial languages as thought-means is one of the necessary conditions for the very possibility of modeling teaching activities, designing and re-designing their own educational systems based on overcoming difficulties, errors and shortcomings in the activities. The results of these studies make it an equal member of a professional teacher education community and are one of the conditions for the formation of the educational community.

Ability in constructive reflection in her own teaching activity – the foundation of professionalism and a mechanism for personal and professional improvement. Constructive reflection characterized by the adoption of self and other and oriented to productive, professionally and culturally significant self-change (self-development). Mechanism – because the composition of the reflective capacity of the figure when to stop the implementation of activities to return to work in a modified, Bole developed state emphasize the constructive nature of internal processes.

In most reflective capacity customary to distinguish between the following three phases of internal actions or the actions “at the domestic level”. This is a research or analytical, step constructing representations of the activities currently in force; critical stage – identifying the causes of achievements, failures or difficulties; the final stage of reflection – a change of activity or representations of themselves.

Analytical stage – is primarily positing themselves and their actions as the object of attention and analysis in the “picture” context last professional activity and the construction of ideas of “I-real”. Under the last activity refers to any of the possible types of vocational and educational activities and

its components. Actions can be analyzed as successful reaching their goals and fail, when the goal was not achieved. In the first case will be the accumulation of positive experiences comprehension activities. In other words, even at the analytical stage of the reflection of its activities may well appear an individual norm, but the question of compliance with such standards generally accepted educational standards – is the next question – critical – phase of reflection.

Critical stage – identifying the causes of failed actions. This is a key element of reflection, when there is an understanding of the essence of a bad action and its causes, as well as become clear prospects for its correction. To do this, you must first triple of opportunities to find the cause of failure in the circumstances, in others and in himself, just to stay on the analysis of their actions. It is possible that the “culprits” were events or circumstances, or someone else. However, ns interesting ability to change himself, and it is associated with reflections of themselves as the source of all that happens to us, including the source of our failures and problems. Different logic unproductive thinking from the perspective of changes, improvements and further development of their actions.

We note a very significant feature of this phase of reflection. It is here – the core of the academic formation of identity and self-determination as a special condition of discipleship. Condition characterized primarily by apprenticeship criticality with respect to itself, the ability to admit their mistakes, weaknesses, openness to change yourself, the desire to overcome their current opportunities, willingness to expend effort in the process of self-transformation.

Second, not having this ability, the teacher will not be able to form or develop this ability in their students, and thus does not fulfill its pedagogical purpose, the essence of which is to develop the student ability to self-change and self-development. And so the researcher becomes clear that you need to specifically implement, adjust, to consider change and develop in their work and himself.

The final phase of reflection – normalization / reforming activities or build the perfect vision of themselves. This phase is oriented to the future. In fact, we are talking about the design process of education, training and education, when the reflective analysis of clear exactly what knowledge, skills, abilities, etc. not enough and you need to determine what exactly you need to learn where and how it is taught and what is important, who. The consequence is a motivational readiness to all processes of self-change.

Resume

The presence of such a subjective experience of reflective teacher opens it to penetrate deep into the teaching profession, as a prerequisite of professional and pedagogical ability to understand the inner world of the student, his academic self-help in the formation of his ability to self-learning, self-education, self-development, creativity. It remains to add that the theoretical notion of reflective capacity reveals the essence of teaching activities, which can not exist without the student, designed to shape the student's ability to self-development and self-improvement, on the one hand, with respect to innovation and creativity, on the other – the world of culture as a vector of values and development.

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*Materials of Conferences***TO THE QUESTION OF IMPROVEMENT OF THE CONTROL OF KNOWLEDGE OF STUDENTS**

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Technology organization and implementation of the educational process in higher education is multifaceted and ongoing process of improvement. One of the important directions of this work is to improve the system of control of knowledge of students. One component of the control system, in our opinion, is the point-rating system of evaluation of student work in the process of training and production, research, extracurricular activities, and also of determining the ranking of the graduate output.

Our proposed ranking model estimation of multicomponent cognitive activity of students has two directions:

- 1) the rating of the assimilation of the compulsory curriculum in the discipline;
- 2) the rating of students' independent work (level of motivation), which includes the evaluation of such activities as labor discipline (lectures and workshops), work with educational and scientific literature, educational research and scientific-research work of students.

The success of the study of individual disciplines and student activities is estimated by the sum of points, which together determine the rating of the student in the learning process, and upon completion of the study program of the discipline.

To register the amount of points developed "Rating student card", which covers all assessment criteria student work indicating the maximum amount of points they can receive for each type of academic work. In addition, the "Rating card to the student" are evaluative criteria of their learning activities, as "the standard rate", "Actual rating" and "Passing rating":

- regulatory rating reflects the maximum possible amount of points that a student can get during the period of development of the discipline;
- the actual rating is expressed as the amount of points that a student gaining work in the semester when passing a checkpoint of the current and final control;
- a passing rating shows low points, gaining which, the student will be deemed certified in the discipline. So, if a student graduates gaining score, which is in magnitude less than the flow rating of the subject is considered to be undeveloped, and the main educational program in the specialty is not performed.

"Rating student card" is stored at the Department and completed by the teacher at the end of the sequence of topics in the discipline on the basis of:

- magazine group classes, which is used to record data on the progress and attendance of practical classes, seminars, final practice;
- log attendance of lectures on the discipline studied;
- submitted by student "Portfolio" to study the discipline in which displayed him self out-of-class educational, research and research.
- the "Portfolio" presented by the student on the studied discipline in which its independent out-of-class educational, educational and research and research activity is displayed.

Experience of use of ball and rating system of an assessment of knowledge for students when studying training programs of such disciplines as epidemiology and infectious diseases, I showed the obvious positive reasons for its widespread introduction in educational process. In particular, it gives the chance to the teacher:

- in due time to introduce amendments in the organization of educational process by results of the current rating control;
- with high degree of objectivity to determine for each student his total assessment by discipline taking into account systematic work;

At the same time and students receive positive result from introduction of ball and rating system of an assessment of their work and knowledge. In particular, it allows students:

- to understand system of formation of the current and total estimates on disciplines and other types of works within educational process;
- to realize need of systematic work on implementation of the curriculum on the basis of knowledge of the current rating assessment of each discipline and following the results of performance of other types of study prior to the beginning of examinations;
- during an educational semester in due time to introduce amendments on the organization and realization of the current independent work.

The management of a higher educational institution, thus, has an opportunity more objectively to estimate the level of training of students and in due time to resolve administrative organizational issues on updating of curricula, by consideration of candidates for receipt in postgraduate study, at purpose of grants, questions on employment of graduates.

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INTERACTIVE METHODS OF TRAINING: CONFERENCE OF IRSTU “APPLIED RESEARCHES IN FIELD OF PHYSICS”

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Nowadays all universities of Russia are in process of realizing educational programmes according to federal state educational standards of the third generation (FSES-3) that place requirements towards formation of certain competences among students, and for this purpose interactive forms of training are being introduced.

Physics department of IrSTU undertakes work on introducing new educational technologies into training process. Ways of realization include: lecture courses, laboratory practical works, seminars, conferences, etc. The method of project is basically used within lecture course. We have developed and tested organizational-pedagogic model of professionally-significant projects in physics for junior courses of bachelor degree.

The work on a project is the defining part of it, as in the process interactive forms of education are realized completely. A student obtains experience of constructive activity, thus enabling himself to display his potential abilities in develop creative potential.

Usually, after work on project is finished, we hold a thematic conference, within which reports are presented and the results are discussed. Such conferences are held with support of regional department of Russian academy of natural science.

“It is necessary to improve scientific developments, correct directions of science and technic, develop applied researches” – president V.V. Putin addresses to federal council. Nowadays “applied researches” are treated with a great attention. Federal target programme (FTP).

Scientific and scientific-pedagogic staff of innovative Russia in 2014–2020 demonstrate a state’s interest in development of such researches and possibility of creating new scientific directions. Fundamental and applied researches are the two factors of realizing science as a profession.

Within the project of December 2014 department of physics held round table “Applied researches in field of physics”. At this conference (round table) students of years 1 and 2 presented their scientific reports.

“The main problem of the conference is to deliver the idea of physics’ part within engineering education to young students. Our students carry out not only theoretical researches in field of physics, but also applied studies. They learn to implement this knowledge in creation of new materials, technologies, and tools. Physics should be linked to real life and real production”, – comments the first

prorector of IrSTU, head of department of physics, Nikolai Konovalov.

Annually up to 200 IrSTU students participate in the conference – energetic students, builders, machinery engineers, miners, etc. Scientific reports are presented by not only Russian students, but also foreigners.

For example, during the present conference Vietnamese students presented their opinion on problems of water environment pollution and suggested to implement nanotechnologies in the circle of water cleaning in Vietnam. Mongolian students spoke of their attitude towards problems of Baikal ecology.

“Physics in my profession. Optical effects in gemstones” was the name of scientific report by student of year 2 from university of subsoil usage Svetlana Berdnikova. “My future specialty is related to technology of artistic procession of stones and metals. Therefore, I decided to study optical effects in gemstones closely, so I am able to implement this knowledge in production of jewelery. It is impossible to produce this type of goods without knowledge in physics. Understanding of physical effects of gemstones allows one to produce a more beautiful objects of jewelery, make them spectacular, underline their advantages”, – says S. Berdnikova.

First-year student of institute of metallurgy and chemical technology Handa Shoidokova comes from Zabaikal region. “I began participating in various scientific conferences in school. I am interested in science and discovering something new. I started preparing my report on the 1st of September, exactly when I entered university. The topic I chose is very close to me: “Energy-preserving characteristics of yurt”. My nationality is Buryat. Yurt is a native dwelling of shepherds and nomads, and, regardless of the fact that the construction of yurt is three thousand years old, reality of its implementation is still actual”. – says K. Shoidokova. It turns out that felt, used in construction of yurt, possesses the lowest heat transition, thus preserving warmth for a longer period. Here is why the Buryat, the Evenki, the Chukchi never froze in their yurts during severe colds. “Besides, yurt is a house, constructed according to the golden ratio, its roof forms a pyramidal cone. From the position of mathematics it is an ideal construction. From the position of medicine living in such dwelling is beneficial for health of its inhabitants”, – concludes her report K. Shoidokova.

According to the information, received from the first prorector of IrSTU N. Konovalov, the most interesting and perspective works by students will be recommended as topics for graduation diploma projects.

As a result of holding such events, students form a skill of behaving before an audience correctly, present material clearly, speak freely, fit their reports to the time they are provided with.

In the end of work on a project the main problem is solved: new knowledge is acquired, interest

towards mastering physics is formed, as well as the necessary competences [1, 2].

We should underline that it is necessary to use modern interactive forms of training from the junior courses, as during this period scientific foundation is formed and competences, required for self-development and formation of personality.

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INDEPENDENT WORK AT HIGHER EDUCATION INSTITUTIONS

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The article deals with a form of learning in higher education institutions – independent work, its goals and objectives, substantiates the necessity of improving its forms and control.

The contemporary system of higher education raises many challenges, the most important of which is to improve the quality of training specialists. The graduate should be creative and fluent not only in his or her specialty, but also be fully conversant in allied domains and willing to continuous professional development, initiative, social communicativeness and mobility.

It is impossible to solve this problem without increasing the role of independent work of students in the learning process, increasing the responsibility of the teacher for the development of skills of independent work in students and growing their creative activity. The student must not only master the skills and experience of using the knowledge gained from the teacher, but also be able to conduct an independent search for the information he or she needs professionally.

Introduction an increased proportion of independent work in educational process actively promotes modernization of educational process.

According to A.A. Mirolyubov, independent work is a variety of individual or collective activity of students during in-class and extracurricular classes and at home without the direct involvement of a teacher, but according to his or her instructions. Students' independent work is based on the principles of independence, didactic and creative orien-

tation, goal-oriented planning, person-centered and activity approach.

The main objectives of students' independent work are:

- systematization and consolidation of book knowledge and practical skills;
- deepen and broaden the knowledge acquired;
- development of cognitive abilities and activity of students;
- development of research skills;
- formation of abilities to self-development, self-improvement, self-realization.

In the educational process of higher educational institutions, the independent work of a student can be implemented in the following forms:

- in-class independent work (carried out during academic studies under the guidance of a teacher and in accordance with his or her assignments);
- extracurricular independent work (carried out by a student in accordance with the teacher's assignments, but without his or her direct involvement);
- research work (participation in scientific research, experimental work).

In-class independent work may be varied: during practical studies and recitations, various types of independent work help make learning more interesting. To control retention of material by, the teacher can use quick tests (multiple-choice items), which are carried out within 5-10 minutes.

“Simulation exercises” is being used now as one of the various forms of students' independent for practical training. The theme of the exercises is usually related to specific practical themes and is of applied nature. It can include tasks of situational modeling on topical issues.

The purpose of a simulation exercise is creating opportunities to develop different versions of the situation and make decisions under simulated conditions.

Carrying out a laboratory-based practical, as one of the learning activities, contains a lot of opportunities for application of active learning approaches and organization of students' independent work.

Extracurricular work may include: reading of recommended sources, their written abstracting, problem solving, written answers to questions proposed, doing of computer practicum, tests, preparation for speaking at seminars, student conferences, writing tests, course papers, and theses.

The Internet resources allow creating a system of independent work, which stimulates cognitive activity of students, facilitates their successful assimilation of the program of academic disciplines (T.S. Volchetskaya). In this case, it is possible to use the following information technologies:

- search for information on the Internet (using a database, using information retrieval and reference systems, automated library systems, electronic journals);

- organization of a dialogue on the Internet (using e-mail, image editors, real-time and deferred conferences);

- establishment of web-pages by topic.

The independent work of a student has to be controlled. The control may take the following forms:

- control on the form of testing;
- statement at recitations, conferences, participation in a simulation exercise, academic competitions, etc;
- Course papers, tests and theses defense;
- inclusion of the material proposed for self-study in examination papers questions.

The criteria for assessment of the progress of a student's extracurricular independent work are: the level of students' familiarization with educational material; ability to use theoretical knowledge in carrying out practical tasks; well founded nature and clarity of answering.

Thus, independent work is one of the forms of teaching students in higher educational institutions.

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MYOGLOBIN DYNAMICS IN SERUM IN PATIENTS WITH CORONARY HEART DISEASE BEFORE AND AFTER OF CORONARY STENTING

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The article presents the results of a survey dynamics of a myocardial damage marker – myoglobin in the serum of 30 patients with coronary heart disease: stable stenocardia of II–III functional classes, which are held percutaneous coronary intervention and coronary artery stenting.

Keywords: myoglobin, troponin T, creatine phosphokinase-MB, stenting, damage to the myocardium, coronary artery

Actuality: Cardiovascular diseases, including coronary heart disease (CHD), occupy an important role in the structure of morbidity and mortality in most developed countries including Russia. [2] Currently, the prevalence of coronary heart disease in the general population of Russia is $13,5 \pm 0,1\%$, among men – $14,3 \pm 0,3\%$, women – $13,0 \pm 0,2\%$ [6]. This trend of disease development in the population poses in front of a modern cardiology the problem of early diagnosis, risk assessment, with the necessity of timely initiation of therapeutic measures.

Despite the intensive development of non-invasive methods of treatment, coronary artery stenting or coronary artery bypass grafting. Each year there are performed about two million percutaneous coronary intervention (PCI) in the world, more than 90% of which are of coronary stenting [1, 8].

In the literature, it has been recently appeared the term “minor myocardial damage” that arise in the PCI and is identified only by the definition for cardiac markers.

One of cardio-specific markers is myoglobin – low molecular heme-containing protein that is found in all muscle cells. Its molecular weight is 18 kDa [3, 7]. Therefore, damaged myocardium myoglobin readily diffuses through cell membranes of damaged muscle. Its content in the serum of patients with myocardial infarction increase in 2 hours after onset of symptoms [4, 5]. Thus, myoglobin is an early enough sensitive marker.

Researches, devoted to the studies, we have not seen in the literature thus the aim of research has been formulated.

The aim of research: To determine the degree of ischemic and reperfusion myocardial injury during percutaneous coronary intervention by studying the dynamics of myoglobin in the blood serum of patients with coronary heart disease: stable stenocardia of II-III functional classes.

Materials and methods of research

There have been included 24 patients in the study (18 men (75%), 6 women (25%)) with coronary heart

disease: stable stenocardia of II–III functional classes that were examined and were treated at the FGA “FCOCS Astrakhan” in the period from 2009 to 2011. The middle age was $61,5 \pm 1,24$ years. There have been performed coronary angiography with the further implementation to all patients for diagnosis. The study group consisted of patients with coronary heart disease: stable stenocardia of II–III functional classes in the 1st day after the small myocardial damage, in the comparison group – the same patients before coronary intervention.

As a control group there have been included in the study 50 healthy donors (25 (50%) of men, 25 (50%) of women) aged from 25 to 55 years. The middle age was $42,72 \pm 1,5$ years.

The diagnosis of coronary artery disease was confirmed by clinical-instrumental and laboratory data and was installed in accordance with the WHO classification (2005). Among patients with a diagnosis of ischemic heart disease: exertional stenocardia of functional class II – 13 (54,2%); Coronary heart disease: exertional stenocardia of functional class III – 11 (45,8%). Symptoms of chronic heart failure (CHF) of I stage by 20 (83,3%) patients, heart failure II of A stage – 4 (16,7%). Patients with CHF on NIHA were divided into the following functional classes: functional class I – 2 (8,3%), functional class II – 18 (75%) functional class III – 4 (16,7%).

The object of laboratory studies were serum in patients with coronary heart disease: stable stenocardia of II–III functional classes. The concentration of myoglobin in the blood serum of patients were determined in dynamics: on admission to the hospital, on 1 day after coronary artery stenting. Patients were discharged on average $3,6 \pm 0,3$ hours.

Blood for serum preparation was obtained by puncture of the cubital vein. Serum was separated from blood cells by centrifugation at 3000 rev / min for 10 min to 2 hours after the first blood sampling, canned 1% sodium azide and stored before the test at -180 C.

Myoglobin concentration (ng/ml) was determined by electrochemiluminescence method using reagent kits Elecsys of firm “Roche” on the Elecsys 2010 immunochemical analyzer of firm “Roche” (Switzerland, Germany, Japan). Reference level of myoglobin was 25,0 – 72,0 ng/ml.

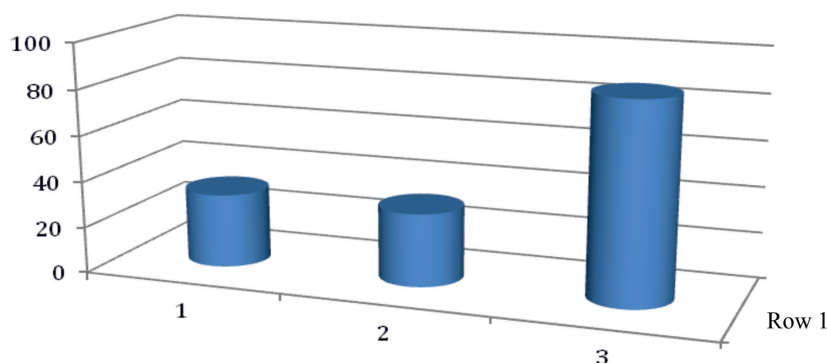
On getting the written consent and pre-sedation of the patient in terms of roentgen operating room there was performed: coronary artery stenting of 30 patients (100%). During stenting there were used stents of Xience V.

All data collected during the study, were processed by methods of parametric statistics Statistica for Windows V. 7.0 with a help of Microsoft Excel program. There were calculated mean values (M), standard deviation (δ) and the error of the mean (m).

Myoglobin indicators in donors and patients before and after percutaneous coronary intervention (ng/ml)

Investigated acute phase protein	Research groups		
	Control group	Group of comparison	Group of research work
The level of myoglobin	32,1 ± 3,8	31,67 ± 1,99	86,1 ± 3,8

Note: the control group – healthy donors; comparison group – patients with coronary artery disease, stable stenocardia of II–III functional classes to coronary stenting; study group – patients with coronary artery disease on 1 day after transluminal balloon angioplasty and stenting of the coronary arteries.



Myoglobin dynamics before and after coronary artery stenting. Note: 1 control Group – healthy donors; 2nd comparison group – patients with coronary heart disease: stable stenocardia of II–III functional classes to coronary stenting; 3rd study group – patients with coronary artery disease on 1 day after percutaneous coronary intervention

Results of research and their discussion

The dynamics of myoglobin in the blood serum in healthy donors and patients with coronary heart disease was surveyed: stenocardia of II–III functional classes before PCI, as well as on 1 day after coronary intervention.

Reference limit of myoglobin in serum for immunochemical analyzer Elecsys 2010 of “Roche” firm was 25,0–72,0 ng/ml.

Myoglobin values in the control group did not extend beyond the reference level, it was 32,1 ± 3,8 ng/ml. Patients with coronary heart disease: stable stenocardia of II–III functional classes before percutaneous coronary intervention, included in the comparison group, the concentration of myoglobin in serum 31,67 ± 1,99 ng/ml.

On the 1st day after percutaneous coronary intervention and coronary artery stenting in patients, included in a group of studies, it was found the myoglobin increase in serum, its level was 86,1 ± 3,8 ng/ml. This indicates that the concentration of myoglobin in the serum is increased in 2,72 times in patients undergone PCI. The marker concentration of myocardial necrosis myoglobin in the serum is more in the study group than in the control group as well as exceeds the upper limit of the reference level (picture).

Thus, to summarize the results of our study based on an assessment of myoglobin indicators,

one can conclude that after percutaneous coronary intervention and coronary artery stenting in patients with coronary heart disease: stable stenocardia of II–III functional classes it is recorded increase markers of myoglobin myocardial damage that may indicate a small myocardial injury.

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*Materials of Conferences***RESEARCH AND CRONOTYPE
BIORHYTHMS CAPACITY OF STUDENTS**

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Regular, recurring changes in the nature and intensity of biological processes are called biological rhythms (biorhythms). As they are based on changes in metabolic processes under the influence of internal and external cyclical factors. It is believed that each person of the birth of their lives on biorhythms. Under the influence of unfavorable factors may occur between components biorhythmic systems. Moreover, some processes are in the same rhythm as well as to other phase-shifted. It is characterized by fatigue, decreased performance. In case of violation of human biorhythms are usually aggravated "available" in human disease. That is why so much attention is paid to the need for patient compliance date.

Introduction: In duration allocate 3 of biorhythm: The physical cycle – 23.69 days, the emotional cycle – 28.43 days, the intellectual cycle – 33.16 days. Chronotype person – stable individual periodization psychophysiological state. Isolated on chronotype "owl", "larks", "doves". It was believed that biorhythms directly proportional to chronotype, but proved that these two parameters are completely independent of each other and highly individual for each person. Knowledge of biorhythms and chronotype allow the student to make a rational schedule, as well as build business plans for the coming months.

The aim of the work: To determine chronotype and parameters of biological rhythms to select the sound mode of work, exercise and rest of students.

Materials and methods: To determine chronotype and biorhythms were 150 1st year students sheathe medicine, it was used Ostberg questionnaire consisting of 8 questions, other than that determined by the parameters of biorhythms, calculate the critical days and on the basis of the calculations was plotted individual biorhythms.

Results: Data on chronotype Ostberg questionnaire: "clean" owls – 9% "clean" Lark – 5%; "Clean" doves – 13%. Most people – mixed types – 73%. In the study of biological rhythms in different chronotype not set a definite pattern between workability, emotional and intellectual cycles. For each individual there chronotype biological rhythm (physical, emotional, intellectual).

Conclusion: The value of biorhythms is large enough in everyday life. Knowing the individual biorhythms depending on chronotype can build their plans for the month so that their implementation

would have been the most productive. Biorhythms play a big role in the overall well-being and health. Keeping a certain mode that supports biorhythms, you can stay young longer.

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**ANALGESIC NEPHROPATHY
AS A LIMITING FACTOR WIDESPREAD
USE OF THE NONSTEROIDAL
ANTIINFLAMMATORY DRUGS**

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Currently a large group of nonsteroidal anti-inflammatory drugs are widely represented by modern synthetic derivatives. More than 14 major pharmaceutical groups in chemical structure represented by a variety of active ingredients (International Nonproprietary Names, INN) and numerous shopping generics drugs. In modern medicine the main nonsteroidal analgesics-antipyretics are: acetylsalicylic acid (Aspirin), Acetaminophen (Paracetamol, Panadol, Kalpol, Efferalgan), Diclofenac sodium (Ortofen, Voltaren, Diklobene), Ibuprofen (Nurofen), Ketorolac (Ketanov), Indomethacin, Phenylbutazone, Piroxicam (Roksik), Lornoxicam (Ksefokam), Tenoxicam, Meloxicam (Movalis), Celecoxib (Celebrex), Nimesulide (Nimesil) and others. All of these drugs are very widely used as anti-inflammatory, analgesic, antipyretic, antiplatelet agents for numerous indications in many areas of medicine (internal medicine, surgery, traumatology, sports medicine, neurology, gynecology, urology, oncology, ophthalmology, etc.). The most popular drugs in this pharmacological group, such as Diclofenac, even included in the list of vital and essential medicines. High popularity and an opportunity to buy on the open market in pharmacies without medical prescriptions provoked uncontrolled without a doctor self. As a result, the occurrence of recorded increasingly serious side effects, one of which is a kidney – analgesic nephropathy. Nephrotoxicity of these drugs due to their common mechanism of action, namely inhibition of the synthesis of vasodilating prostaglandins (PG E₂) in renal tissue, which leads to vasoconstriction and deterioration of renal blood flow. Therefore, there are ischemic changes in the kidneys, reduced glomerular filtration. This causes a violation of water-electrolyte metabolism and changes in urine sediment (sodium and water retention, hyperkalemia, hematuria, proteinuria), increase in serum creatinine, appear edema, increased blood pressure. With prolonged

use (3–6 months) analgesic nephropathy may develop in the form of interstitial nephritis, nephrotic syndrome, renal papillary necrosis and renal failure due to the direct toxic damage of the differentiated epithelium distal renal tubules (necrobiotic changes with damage to the basement membrane). Also post-renal failure may be due to obstruction of the lumen by the intratubular desquamation cells remains after papillary (tubular) necrosis of the kidneys. Nephrotoxicity is most pronounced in patients with heart failure, renal failure, hypertension, elderly patients, and when combined with nephrotoxic drugs – gold preparations, antibiotics (aminoglycosides, Afoteritsin B, tetracyclines) and combined multicomponents antiinflammatory drugs. The clinical nephrotoxicity monitoring is recommended in terms of creatinine in the blood in these cases necessarily.

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CHANGE OF N-TERMINAL PRO-BRAIN NATRIURETIC PEPTIDE IN PATIENTS UNDERWENT CORONARY ARTERY BYPASS GRAFTING

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Chronic heart failure is a widespread disease with a progressive course and poor prognosis. N-terminal pro-brain natriuretic peptide (NT-proB-

NP) are commonly used in the diagnosis of chronic heart failure (CHF). The release of NT-proBNP can occur even without an increase in diastolic pressure in the left ventricle (LV), during the brief episodes of myocardial ischemia. Revascularization for a myocardium can be one of the most effective methods of restoration of contractile abilities of a myocardium at the expense of influence on the basic pathogenetic mechanisms of CHF. Although there are few researches on the induction of ischemic myocardium release and prognostic role of NT-proBNP in patients undergoing myocardial revascularization, the results are very patchy and inconsistent.

Purpose. To determine the content of the NT-proBNP in patients underwent coronary artery bypass grafting (CABG), depending on the level of ejection fraction (EF) before surgery in the postoperative period.

Methods. 63 patients underwent CABG under on-pump without intraoperative myocardial damage were included for study. Patients were divided into two groups depending on the magnitude of left ventricular ejection fraction (LVEF): 33 patients with EF < 50 % on average (45,0 ± 7,3)% and 30 patients with EF > 50 % on average (52,0 ± 5,5)%. NT-proBNP levels were determined within 12 days after surgery.

Results. Coronary artery bypass surgery resulted in improved hemodynamic indices of left ventricular myocardium, as evidenced by an increase in ejection fraction in both groups with EF < 50 % and EF > 50 % to 6,5 % and 70 %, respectively (p in both cases < 0,01). After coronary bypass surgery NT-proBNP levels were increased by 4,3 times in patients with EF < 50 %, and in patients with EF > 50 % – by 3,4 times (Table).

NT-proBNP level in patients after coronary artery bypass grafting, depending on left ventricular ejection fraction (M ± SD)

NT-proBNP	Controls n = 21	EF < 50 n = 33	EF > 50 n = 30	p		
	1	2	3	1–2	1–3	2–3
Before surgery, fmol/ml	5,1 ± 0,6	16,6 ± 9,5	10,9 ± 1,1	< 0,001	< 0,001	< 0,01
Postoperative, fmol/ml	5,1 ± 0,6	71,9 ± 33,0	37,4 ± 2,3	< 0,0001	< 0,001	< 0,001
p	> 0,05	< 0,0001	< 0,0001	–	–	–

Conclusions. The increase of NT-proBNP in patients after CABG on improved hemodynamics, increase in EF and absence of myocardial necrosis confirm the assumption that reversible ischemia can cause increased synthesis of NT-proBNP in the myocardium, the effect of which is aimed at the activation of myocardial healing

process and is not associated with changes in hemodynamics.

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Materials of Conferences

**STRUCTURE OF PRODUCTION
OF BRANCHES OF PLANT SCIENCE
AND DYNAMICS OF DEVELOPMENT
OF PLANT SCIENCE IN FARMS
OF THE TVER REGION**

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Plant science is one of the main branches in structure of agricultural production of the Tver region. Grain farm, vegetable and potato farming allocate in yielding of crop production of the region. Private subsidiary farming and country farms play an important role in production of plant science in the area. Gross collection of main types of crop production in country farms of the Tver region from 2000 to 2013 in general tended to increase, except for gross collection of flax fiber which for the studied period was reduced twice. The maximum gain of gross collection falls to the production of potatoes (increase by 5,4 times). Gross collection of vegetables increased by 3,2 times, and small grains by 1,7 times. Official statistical data on a condition of agriculture of the Tver region speaks about a gradual and sure exit of farmer sector of the region from a condition of an economic crisis and also about rise of competitiveness of farmer production and its profitability.

The most part of agricultural production of the Tver region falls to the agricultural organizations (55,7%) that is about 1,5 times more than the production made by private subsidiary farming of the Tver region and in 15 times more than quantity of the production made by the farmers of the Tver region (3,7%). If to consider the structure of production of branches of plant science on categories of farms of the Tver region, the most part (66,5%) falls to private subsidiary farming that is 2,4 times more than a similar indicator in the agricultural organizations (55,7%) and in 10,5 times more of the given value in country farms of the region [2]. Thus, dynamics of decrease is observed in private subsidiary farming and country farms in the considered indicator in comparison with previous year and changes in increasing of value of this indicator at the large agricultural organizations from 23,2% in 2010 to 27,2% for the beginning of 2013 [1].

One of the primary branches of plant science in structure of agricultural production of the Tver region is grain-growing. In 2013 the leading position on production of small grains among all agricultural producers of the Tver region is held by the agricultural organizations (88,1%). The smallest value has the considered indicator in private subsidiary farmings (1,9%). 10% of

production of grain falls on country farms. From 2000 to 2012 sure positive dynamics of change of this indicator is traced in farmer sector of the region by 3,6 times and decrease in value in the large agricultural organizations [1]. This dynamics testifies to gradual fixing of a role of farms in structure of agricultural production of the Tver region.

Vegeticulture is one more of gained the widest circulation in the Tver region branch of plant science. The main producer of vegetables in structure of agricultural production of the Tver region are private subsidiary farmings. 92,5% of production of vegetables in farms of all categories of the Tver region fall to private subsidiary farmings in 2013. The minimum share in structure of production of vegetables falls to farmer sector of the Tver region (1,7%). But thus it should be noted that from 2008 for 2013 production of vegetables farms remained almost low, while similar production for the considered time period in the agricultural organizations decreases gradually (from 10,4% in 2007 to 5,8% in 2012) [3]. That allows to draw a conclusion on a sustainable development of the farmer sector of the region.

Among producers of potatoes in the Tver region the leading position is held by private subsidiary farmings – 65,8% of the general production. Large agricultural producers are ahead a little of farmers by 6%. Thus from 2000 for 2013 steady dynamics of increase of value of an indicator of production of potatoes is observed by region farms (from 1,65 in 2000 to 14,1% in 2012) and decrease (reduction by 24%) in the considered indicator in subsidiary farms.

Besides a production indicator at the characteristic of development as agriculture in general, also branches of plant science, one of main indicators is also value of an index of sales of product.

The large agricultural enterprises possess the greatest index of sales of product both all agriculture in general, and branches of plant science separately. It is explained by existence of the state orders and direct contracts with the state while farmer and private subsidiary farmings are compelled to cooperate with dealers of agricultural production. Thus the index of realization of agricultural production of the Tver farmers remains positive from year to year and is characterized by dynamics of increase.

The leading position in structure of production is held by potatoes – its share in structure of production makes 63,9%. Specific weight of farmer sector of the Tver region in potatoes total production for the end of 2012 made 14,1% and from 2000 to 2013 has positive dynamics (increase in a share of production by 9,4 times) [1].

Cultivation of grain crops follows further (its share makes 13%). The insignificant share in structure of production of farmer sector is the share of cultivation of vegetable cultures (2,5%). Specific weight of country (farmer) farms of the Tver region in total production of vegetable cultures makes 1,7% and for the studied period it increased by 5,7 times.

Distinctive feature of farmer sector of the Tver region from similar farms of the next areas is existence in structure of production of agricultural production – a flax fiber (0,3%).

Specific weight of country farms in total production of flax fiber makes 3,6% and for the studied period has positive dynamics while specific weight in total production of flax fiber of the large agricultural enterprises is gradually reduced.

The cultivated area of country farms from 2000 to 2013 increased approximately twice. Now it makes 48,3 thousand hectares.

The greatest part of a cultivated area of farms of the Tver region is the share of forage crops (for the end of 2012 it made 37800 hectares), the smallest on vegetable (144 hectares) and industrial cultures (326 hectares). From 2010 to 2013 the cultivated area of all main crops has positive dynamics.

The greatest gain of farm field (by 4 times) for the studied period is the share of the industrial crops presented by flax fiber. The smallest gain (by 1,2 times) is observed at grain crops [4].

Gross collection of main types of crop production in country farms of the Tver region from 2000 to 2013 in general tended increases, except for gross collection of flax fiber which for the studied period was reduced twice. The maximum gain of gross collection is the share of potatoes (increase by 5,4 times). Gross collection of vegetables increased by 3,2 times, and grain crops by 1,7 times.

Specific weight of country farms of the Tver region made 10% in total production of grain crops for the end of 2012. From 2000 for 2013 the steady tendency of increase (by 3,6 times) of the specific weight of farmer sector in the region is observed in production of grain crops.

In structure of production of grain crops by country farms the leading position is held by oats (66% of the general gross collection), wheat – 21,4% follows further. Insignificant shares fall to rye and barley – 6,4% and 4,7% respectively.

Gross collection of main types of grain crops in farmer sector of the Tver region has a positive tendency. From 2010 to 2013 increase of gross collection of oats (from 26,7 thousand centner to 56,4 thousand centner) by 2,1 times, wheat twice, barley by 2,1 times is noted. Gross collection of rye for the studied period was reduced by 1,2 times [3].

57,8% in structure of realization of grain crops of farmer sector of the Tver region falls to oats, 36,3% to rye and 1,3% to barley.

The structure of realization of grain crops completely corresponds to structure of production of grain crops that testifies to the adjusted sales channels and realization of grain crops by farmers of the Tver region to the same customers and testifies “the grain cultivation to order”.

The structure of gross collection of main types of vegetable cultures in country farms of the Tver region is presented as follows: 50,6% falls to cucumbers, 30,7% to tomatoes, 15,7% to beet, that speaks natural and climatic conditions of the region which completely coincide (correspond) to an agrotechnics of cultivation of these cultures.

Productivity of the main crops in country farms of the Tver region from 2000 for 2013 had the general tendency to increase. Considerably productivity of vegetable cultures (by 2,6 times) and potatoes (by 2,1 times) increased. Productivity of grain crops increased slightly (by 1,4 times). Productivity of flax fiber tends to decrease (reduction by 1,3 times), that affected the level of gross collection of this crop [3].

Realization of main types of crop production farms of the Tver region in comparison with previous years (from 2007 to 2013) has positive dynamics. Potatoes are in the lead for the end of 2012 in structure of the realized production of crop branches of farmer sector of the Tver region (10062,7 tonnes). Most considerably (by 7,9 times) is the quantity of the realized flax fiber, the smallest increase (by 1,4 times) occurred in number of the realized vegetable cultures. Realization of grain crops farmer sector increased by 1,5 time, and potatoes by 1,6 times [2]. The similar structure of the realized production and increase in indicators speaks about emergence of new and steady channels of sales of product in the Tver region by farmers. One more advantage increasing quantity of the realized production is action in the territory of the area of the state program directed on support of farmer sector and allowing farmers to hand over partially crop production directly to the state overworking enterprises.

Thus, the structure of realization of agricultural production by country farms of the Tver region looks as follows: the maximum quantity of the realized production is the share of potatoes (46,9%) and grain crops (6%), minimum – of vegetables (0,02%).

Such distribution says that such types of production as vegetables farmers make for own needs and in the corresponding volumes. And for production of such types as potatoes, grain crops, a flax fiber at the Tver farmers are debugged channels of realization and there are constant sales markets.

Thus, having analysed and having compared official statistical data on a condition of agriculture of the Tver region, it is possible to draw a conclusion on a gradual and sure exit of farmer

sector of the region from a condition of an economic crisis, increase of competitiveness of farmer production and its profitability. In general, production of crop production by the Tver farmers from 2000 to 2013 increased by 10,8 times, and production of animal industry for the similar period by 1,8 times. Since 2010 the sharp increase in level of production of crop production (from 34,6% in 2000 to 62,6% in 2013) and considerable decrease in production of animal industry is observed (from 65,2% in 2000 to 37,2% in 2013) that speaks about prevalence in structure of production of farms of the Tver region of branches of plant science over branches of animal industry [4].

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*Materials of Conferences***STRATEGY TO ENHANCE THE COMPETITIVENESS OF UNEMPLOYED PERSONALITY IN THE LABOR MARKET**¹Davletova A.A., ²Beisembaev G.B.¹*Kainar University, Ushkonyr village,
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The work on career guidance of socially disengaged (unemployed) strata of the population was held for several years in different regions of Kazakhstan. It showed that the anxiety of an unemployed person has a negative impact on realization of abilities and personal potential of an individual. The development and implementation of the program "Proforientator" in the town of Arys of the South Kazakhstan region acted as the main purpose of the study. Sampling of tested amounted to 728 people. The program can be used as a diagnostic instrumentarium and (or) as a means of developing and correctional work. It helps to create a psychological portrait of an unemployed person to reveal his or her personal potential, to help him or her to find a job.

The dynamic industrial and innovative development of Kazakhstan assumes the development and implementation of new approaches and programs for the system of public administration of human resources, human capital and labor resources. This article describes psychological aspects of career guidance (professional orientation) of a personality (using unemployed people of the city of Arys of the South Kazakhstan region as an example) conditioned by the **topicality** of issues of the modern Strategy for social modernization of society.

It should be noted that from the part of the State various projects, mainly in the form of special employment programs "Employment Program – 2020" and "Employment Roadmap – 2020", were implemented for regulating the labor market and employment in the Republic of Kazakhstan. We implemented the program "Proforientator" in the framework of these programs during the period from August to December 2014 in the South – Kazakhstan region.

During implementation of this program, we were guided by the "Methodological recommendations for the career guidance" agreed by the Ministry of Education and Science of the Republic of Kazakhstan and the Ministry of Labour and Social Protection of the Republic of Kazakhstan. [8]

We carried out the work on career guidance of socially disengaged (unemployed) strata of the population over several years in different regions of Kazakhstan. It showed that the anxiety of an unemployed person has a negative impact on realization of abilities and personal potential of an individual. We believe that one of the main problems of psy-

chologists' work with this category of citizens is to develop a program that would help to reveal personal potential of an individual to cope with his or her anxiety, thereby increasing his or her competitiveness in the labor market, provide self-development and the effectiveness of his or her future professional activities [2].

Scientific bases of career guidance in Kazakhstan were described in the works of Zh.Aimaulytov in the first place as well as scientists – pedagogues and psychologists S. Mukhanova, T. Tazhibaeva, A.P. Seyteshova, M.A. Kudaykulova, L.H. Mazhitova, K.B. Zharikbaeva, S.M. Dzhakupova, J. Turkenuly, Zh.I. Namazbaeva, H.T. Sheryazdanova, A.K. Satova, M.A. Perlenbetova et al. [1; 2; 3; 9]. In spite of the fact that ideas about the need to study the "psychological aspects of professional orientation of an individual" were expressed in socio-economic, political and other sources, the given problem has not been studied in full.

Ensuring the activity of a modern individual in situations of unemployment is one of the most difficult problems of modern society. I.A. Voloshin, N.S. Glukhanyuk, V.A. Grebennikov, O.S. Dejneka, E.P. Ermolayeva, F.S. Ismagilov, A.K. Osinsky, E.F. Zeer, S.A. Tsvetkov, A.N. Demin and others raised the given problem in their studies, but either considered its particular aspects, or as a part of related problems [4; 5]. Foreign studies of the situation with the loss of work, of the effects of inter-organizational transitions, and other phenomena (M. Armstrong-Stassen, D. Doze, K. Vanberg, R. Kanfer, A. Kiniki, D. Letek, N. Thomson, D. Feldman, H. Fmzer, T. Ekvilanti et al. [10–13].) have accumulated an interesting empirical material, offered significant models, but these studies, firstly, were performed in a different social, economic, cultural context, therefore can not be automatically transferred to a person living in Kazakhstan. Secondly, the foreign authors themselves noted the lack of study of special forms of coping with problems in the field of employment by a personality. Thirdly, the concept of career guidance, as the analysis shows, is not sufficient for the analysis of complex and multifaceted activity of an individual. Scientists have come to the need to develop comprehensive programs, among them there is ability-for employment, active socialization in the field of employment, etc. Thus, identification, analysis and synthesis of psychological factors, mechanisms and ways to overcome social disengagement in Kazakhstan conditions create another important problem.

Purpose: To develop and implement the program "Proforientator" in the town of Arys of the South Kazakhstan region.

Hypotheses of the study: Implementation of the program "Proforientator" will allow to identify and disclose professional inclinations of program

participants and reduce the anxiety associated with the situation of an unemployed person;

1. With the creation of individual enhanced electronic database in the form of "Portfolio", the proposed program "Proforientator" will enable the Employment Center of the town of Arys to rationally allocate participants in the main areas of the labor market of the region, to keep track of their professional career and predict the dynamics of stable employment.

Research objectives: To develop and evaluate the program "Proforientator", and assess the feasibility of its use; Conduct testing with the purpose to identify the level of Creative potential and the level of anxiety among participants of the control (CG) and the experimental (EG) groups after the introduction of the program "Proforientator".

The primary objective of our study became the development and implementation of the program "Proforientator" in the city of Arys of the South Kazakhstan region. Sampling of tested amounted to 728 people registered in the town department of employment, (of which 364 – the experimental group (EG), and 364 – the control group (CG)) of the participants. Brief information about the research participants:

1. **Gender differences** of unemployed residents of the city of Arys are reflected in the ratio of 67.1% (women) to 32.9% (men). This ratio can be connected with demographic indicators of the region, where there is a predominance of female representatives over male or by a large number of women among the participants of the program who are on maternity leave, women looking after the disabled and others.

2. **Ranking of unemployed by social status** for the city of Arys revealed the following data: *self-employed* (53.5%) and *unemployed* (46.5%). Among them the *low-income* amounted to 39.8%, *repatriates*-1.7% and *disabled* -1.4%. The revealed dominance of the number of self-employed can be connected with lack of uniform criteria for assessing self-employment of population.

3. The analysis of data by **the level of education** showed the following series among the number of participants of the program: with secondary education (54.7%), with secondary vocational education (23.9%), with higher education (17.4%), with no education (2.8%). These data indicate that the professional orientation work in secondary educational institutions is not carried out at a proper level or non-existent at all. In this regard, it is necessary to raise the level of professional diagnostics and career guidance in schools and colleges, in order to help young people to find jobs and become productive members of society after finishing schools.

4. By analyzing data on **core areas of study** of program participants it was revealed that most of participants have a *humanitarian direction* – 38% and *technological direction* of education (11.6%). These facts indicate that the region has significant

potential in the implementation of humanitarian and technological programs.

The influence of **subjective factors** on the choice of profession among participants of the program "Proforientator". The vast majority of unemployed residents of the city of Arys primarily selected profession under the influence of parents – 74.9%. The analysis of the influence of subjective factors on the choice of profession among the unemployed, once again demonstrates the need for professional orientation work with students and their parents.

In the course of development and implementation of the program, we used various methods of psychology, which were complementary to each other: observation, self-observation, conversation, psychodiagnostic method, analysis of processes and products of activities, methods of mathematical and statistical data analysis of Student t-test. We used the following experimental techniques: 1. Differential diagnostic questionnaire (DDQ) by E.A. Klimov; 2. "Questionnaire of professional preferences" (QPP) by J. Holland; 3. "Scale of reactive and personal anxiety (SRPA)" by B.H. Spielberger, J.L. Khanin (abridged version) [6]. These methods were selected not by chance, as they are unfolded personality characteristics.

The study consisted of two parts. During the first part, the program "Proforientator" was implemented in the experimental group of unemployed.

Description of the program. The program "Proforientator" developed by us was implemented in 7 stages.

Stage 1. Conducting psychodiagnostics using Differential Diagnostic Questionnaire (DDQ) by E.A. Klimov and of Professional Preferences Questionnaire (PPQ) by J. Holland. The data obtained, we would like to highlight in the aggregate. **Personality types by the experimental group.**

As a result, of professional diagnostic studies, we identified the following relation among **psychological personality types** in the city of Arys:

The **social** personality type amounts to 37.1% of program participants, which means that in this town the number of people oriented to communication and interaction with other people prevails.

The **realistic** personality type amounts to 23.1%, which means that the revealed number of people is focused on the present.

The **enterprising** personality type revealed in 12% of the total number of participants around the city, indicating that such amount of people aspires to leadership, needs recognition, prefers leadership roles.

The **conventional** personality type amounts to 13.5% of the participants, which means that the detected number of people prefers preplanned, structured activities, performs routine work well and clearly adheres to existing regulations and rules.

The **intellectual** personality type is observed at approximately 7.3% in the region, which means that

the given percentage of people is characterized by a high activity, analytical skills, theoretical thinking and creative approach.

The *artistic* personality type identified among 8.0%, showing that the percentage of people, which belongs to this type are original, independent in decision-making, are rarely guided by social norms and approval, have an unusual view of life, flexibility of thinking and emotional sensitivity.

When analyzing the above facts concerning the occurrence of psychological types of a personality, we can only talk about trends in the spread of this or that psychological type in the city of Arys. The predominant psychological type of a personality turned out to be the social type, which is apparently connected with social, ethnic and cultural features of the southern region. The data obtained may be useful when considering the human and labor potential of the region and serve as a basis for rational human resource management.

Stage 2. Conducting psychological trainings on personal growth and teaching to job search skills.

Stage 3. Conducting individual psychological consultation with each member of the experimental group.

Stage 4. Passing professional testing and preparation of professionogram, based on the conclusion of a psychologist.

Stage 5. Compilation of a "Portfolio" – "Dossier of the participant", which includes the results professional diagnostics. Inclusion to the electronic database of the Employment Center of the town of Arys "new" data of program participants.

Stage 6. The new format for carrying out "Vacancy fairs" taking into account the peculiarities of psychotype of a personality of the program participants as well as differentiation of employers in the context of spheres of economic activities and opportunities to have an interview with a potential employer.

Stage 7. Maintaining feedback with participants of the program "Proforientator" and tracking their careers and forecasting the dynamics of stable employment.

The **objective of the second part of the study** was an experimental verification of the effectiveness of the program "Proforientator" in the control group (CG n-364) and experimental (EG n-364) groups. Results of the survey:

"Scale of reactive and personal anxiety (SRPA)" by B.H. Spielberger, Y.L. Khanin. The study of the level of *reactive (situational) anxiety* (RA) in the two groups of unemployed showed that indicators by a high level (RA) are different: in CG – 46 people (28%), those in the EG amounted to 4 (2.4%).

According to the results of data (RA), we can say the following: 63% in the CG showed an average level (RA), in the EG – 70.8% participants showed an average result.

In the CG of the program participants – 9% participants showed a low reactive anxiety (RA) in the EG – 26.8% of the unemployed showed a low result.

The study of the level of *personal anxiety* (PA) of study participants showed that in the CG 50 people demonstrated this result (30.4%), those in the EG amounted to 6 (3.5%).

54.6% of all the participants in the control group showed the average level (RA), and in the experimental group 71% of unemployed showed an average result.

11% of participants in the CG showed low result (RA) and 25.5% of the unemployed in the EG showed a low result.

Conclusion. The results of the work performed showed that the majority of unemployed in the experimental group learned to cope with reactive and personal anxiety after they have begun to reveal the inherent creative potential.

Table 1

Indicators of levels (RA) by "Scale of reactive and personal anxiety" in the control and experimental group ($p \leq 0.01$).

According to the results ($p \leq 0.01$)	High level	Average level	Low level
		3.17	2.85
Average (CG)	2.36	16.91	14.22
Average (EG)	5.8	25.09	29

Table 2

Indicators of levels (PA) by "Scale of reactive and personal anxiety" in the control and experimental groups of unemployed (at $p \leq 0.01$).

According to the results ($p \leq 0.01$)	High level	Average level	Low level
		3.16	2.84
Average (CG)	2.35	16.9	14.2
Average (EG)	5.6	25.07	28.2

Thus, the purpose of our work, which was in the development and study of the program "Proforientator" in the city of Arys of the South Kazakhstan region, was implemented. The study confirmed the hypothesis. The assigned objectives were implemented.

Unique data obtained by us during the work on the program "Proforientator" are multilayered and they should not be taken as final ones. However, they help to find ways of further research, penetrate into objectified with difficulty personal characteristics of an unemployed, elusive under the traditional organization of the work of psychologist and which can not be adequately quantified. Thus, per the results of this work with the unemployed of the town of Arys of the South Kazakhstan region for 3 months indicators of employment per identified psychotype of a personality of the program participants were significantly improved.

Implementation of the program "Professional orientation" in the city of Arys with the use of personality-centered psychological line of work with the unemployed and the maximum expression of competence and attention to each participant demonstrated its efficiency. As a result of trainings of personal growth and job search skills training, the program participants gained confidence in choosing a profession as it is reducing anxiety, promotes activation of intellectual and creative potential, increases self-esteem, enables self-development, satisfaction of personal human needs with the ability to effectively plan and to carry out his or her labor activity.

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INNOVATIVE MANAGEMENT OF HUMAN RESOURCES IN EDUCATIONAL INSTITUTIONS: APPROACHES TOWARDS TRAINING EXECUTIVES OF EDUCATIONAL ORGANIZATIONS

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During the recent yeast the system of managing human resources has been developing as a generalizing area of researches that unites them and synthesizes urgent problems of staff management and labour relations between administration and personnel in their general and specific modifications. A necessity to solve a whole complex of problems in the area of managing human resources (HRM) within organizations defines the demand for specialists who have mastered special technologies and are able to implement them efficiently in the area of HRM.

A team of authors (doctor of pedagogic science, professor, academy member of BPA, A.P. Panfilova; doctor of pedagogic science, professor S.Y. Trapitsyn; doctor of pedagogic science, professor A.V. Dolmatov; candidate of economic science, associate professor I.N. Churilina; candidate of pedagogic science, associate professor P.A. Bavina, candidate of pedagogic science, associate professor, E.V. Egorova, business-trainer of consorcium "Codex" S.S. Mikhailchenko; candidate of psychological science, associate professor V.V. Smirnova, candidate of pedagogic science, associate professor E.N. Agapova, candidate of psychological science, associate professor A.V. Rubashov, candidate of pedagogic science, associate professor Y.Y. Kolesnikov) has carried out a research on key processes in the area of HMR and a monograph has been prepared at the basis of the received results.

The monograph represents individual studies by authors who carries out training of bachelors and masters on educational programmes "Human resources management", "Management of education". The first part of the monograph gives us a conceptual idea on key theoretical problems of HMR in institutions, and the research, taken by the author's team in collaboration with postgraduate students and daytime students, allow the reader to see the specifics of the problem, analyze it according to their own experience, and understand the multidimensional activity of an organization manager in field of HRM.

As specialists think, in order to establish a stable development of an organization in a volatile business environment and get involved into processes of renewing education, related to realization of competence and module approach, development of educational standards of the new generation, with changes, happening in labour market, establish correspondence between the level of professional knowledge and skills of graduates and requirements

of employers and modern activity, organization managers have to master innovative and non-standard approaches towards managing human resources more and more frequently.

Therefore, the first part of the monograph studies problems of managing human resources within an organization from innovative positions, so the materials of this book will prove most useful to those who intend to introduce new ideas into personnel management. The monograph also reflects most recent trends in this area of knowledge, they are illustrated by examples from practice of staff management and results of inter-discipline research. Competence approach lies in the foundation of the monograph, therefore, each chapter begins with the description of those competences that should be formed among students of programmes "Human resources management" and "Management of education". Besides, each chapter also contains key words and special literature that can help the reader to orient within the search of the necessary material.

A distinguishing feature of the author's research is the fact that it studies problems of HRM in terms of innovative economy: staff strategies; function of human resources management; theoretical basics of internal organizational training and personnel development; managing knowledge in organization; innovative models and technologies of training; problems of forming social competences of a modern manager; personnel marketing, selection, introduction into a position, adaptation and outplacement; new approaches towards evaluation and attestation of organization employees; management of conflicts and social-psychological climate; creation of competitive advantages; management of a multinational team at the basis of multicultural competence; ecological problems and health-preserving technologies, and also other urgent problems of managing human resources in organizations.

In regard to the mentioned information, modern system of education has to respond requirements of the time and thus realize various innovations that imply developing not only human knowledge and skills, but also personal potential of each student and also their behavior within future professional activity. The authors consider that the basic objective of such training is behavioral change the future specialists, formation of mobility among them, ability to adapt, skills of continuous development. In order to form key competences that will allow future managers to adapt their knowledge to new situations, goals, and objectives, *strategies of "training in action" or "practical training"* have been introduced into educational process.

Since there are almost non state educational institutions in Russia that train tutors who have game-technical competence, and within our institute creative workshop "Game-technical management" has been operating for over 10 years, problems, studied by the training-practical textbook (part 2), are related to *organization of an intense training*. As practice

shows, most tutors master training games via method of trial and error and, as a rule, don't bear any responsibility for their educational efficiency, they don't possess the whole multiplicity of the existing and approved intensive technologies; frequently they violate form of a game or training, methodic of their implementation, are unable to manage an audience of game participants, maintain a correct feedback, organize post-game discussion, deroling, reflection, sharing, and debriefing. The problem of educational efficiency of game training remains urgent as well. Effectiveness of implementing intensive technologies is mostly based upon "taste speculations" of the participants and organizers. Hence, the very idea of accompanying traditional classes with intensive technologies and their introduction into educational process is being compromised. Therefore, the text guide contains an objective collection of independent practical and scientific-research exercises, gaming technologies, training, role and business games for each topic, described in the monograph. Methodical recommendations for a tutor who holds intensive classes, are also provided.

No doubt, an important condition of integrating such approaches into education is interactive cooperation of students of the "formula of solidarity" as well as participative style, in other words, style of students' involvement into processes of teamwork and making decisions together. The necessity of such approach is testified by Federal state educational standards (FSES of HPE), some of them state the following requirement towards basic educational programmes (BEP) of modern generation: *directing students towards final results, expressed in form of competences*, as the same time, *facilitation of active and interactive forms and technologies* of holding classes and control-measurement materials that define the acquired competences in the end of a course, is defined as a necessary condition.

The practical guide shows that during targeted intensive classes students must not only master, apprehend, and understand the information they receive from a tutor, but also carry out independent individual and collective practical acts, aimed to solve problem situations. This aspect enables students to review their personal settings, values, and views, remove stereotypes, learn to work within a team and cooperate.

All the mentioned research data defined the necessity to set the following goal of the presented training-practical guide: a wide introduction of intensive technologies into educational process of training managers in order to develop professional competences, described in the monograph, development of psychological readiness for managing human resources within an organization.

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*Materials of Conferences***SOME ASPECTS OF THE HISTORY OF BUKEYEV KHANATE**

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According to the historian of the 16th century, Mohammed Haydar Dulati Kazakh Khanate was established in 1465. In historical science, Kazakhstan has a number of statements on the date of formation of the Kazakh Khanate. The researcher calls T. Sultanov date education Kazakh Khanate in 1470–71 years N. Mynzhan in 1456, A. Khasenov in 1445. Fruitfully engaged in the study of the Kazakh Khanate K. Pischulina, S. Zholdaspayuly and B. Karibaev fully agrees opinion M. H. Dulati. Founders Kazakh Khanate were the descendants of the founder of the Ak Orda Urus Khan Sultani Kerey and Zhanibek. On opinion of the investigator V.P. Yudina during the reign of Urus Khan, the Kazakhs were not called yet Kazakhs.

Only after carting Kerey and Zhanibek in the territory of the Chu River and Kozybasy word becomes ethnonym Kazakh. A Kazakh khans and Kerey Janibek are really headed Kazakhs. Soon then Kazakh word applies to the vast expanses of the Dasht-i Kipchak. According to researchers until the middle of the seventeenth century there Overall Kazakh unity. The rulers of this period Kasim Khan (1511–1518), Khaknazar (1538–1580), Shygay (1580–1582), Tauekel (1582–1598), Yesim Khan (1598–1628) called the owners did not separate hordes, and hanami all Kazakhs. Kazakh Bies – supporters of unification into a single state-not in vain then, always mentioned Kasim Khan and Yesim Khan.

Calling for unity, have always said that we should go “straight road Kasim Khan and the old road Yesim Khan”. The division into three Kazakhs Juz has not yet found a clear explanation. There are different opinions on this issue. Pre-revolutionary Russian scientists and orient lists of the Soviet period is the division into three Kazakh hordes to the seventeenth century (V. Velyaminov Zernov et al.), The researcher M. Krasovsky completely denies the existence of the unity of the Kazakh Union. By V.V. Bartold, the emergence of independent Kazakh lands associated with the isolation of their nomadic.

M.P. Vyatkin believes that the territory of the Great Horde was the center of all the Kazakhs, so she called the Great, the allocation of the same Middle Horde occurred in the seventeenth century, the beginning of hanstvovaniya descendants Usyaka in Junior Zhuz begins with Abulhair and falls on the 20 years of the eighteenth century. The process of disintegration of the Kazakh Khanate was in the

middle of the eighteenth century. Inside one Khanate appear Sultan individual ownership. After the death of Abul Khair Khan only in Junior Zhuz there were several possessions sultans, Abul Khair Khan himself during his lifetime exercised power through their sons. Each of his son ran a separate district. For example, Nuraly – bayulinskim, Aychuvak – tyurtkariyskim, Adil – chumekeyskim childbirth.

This Abulhair sought to expand the territory of their holdings and increase the amount of subordinated labor. But this division is not strengthened Khanate, but rather led to its weakening. Each tribal association and generation according to ancient custom ruler should be the sultan. Before 1750 in the generation Zhetyru sway Eset Batyr, despite this, in 1750 zhetyruovtsy accepted as ruler Aychuvak-Sultan, Aychuvak distinguished courage and vigor. Therefore zhetyruvtsam it was needed for solving intergeneric land disputes and other matters affecting the interests of an entire generation. In addition sultans rulers through Abul Khair Khan, in the Junior Zhuz considered independent owner and Batyr Sultan Kayipov.

The jurisdiction of the Batyr-Sultan was a large part of the generations alimulintsev. This property was inherited from his father Kaip Khan. Later, after returning from Khiva son Batyr Kaip actually rules this district. Kaip Jr. P47–1758. Hans ticipate in the Khiva, and in 1758, fearing a conspiracy Khiva Bolsheviks, fled to his father. Sultan-Batyr and his son Kaip Jr. behaved as independent owners and did not depend on Nuralyhana. In addition to these Junior Zhuz independent rulers sultans had another owner Sultan Khan’s nephew Nuraly – dosa Niyazov. Power dosa-Sultan applies to certain labor-generation alimuly. Thus, in the 50-70 years of the eighteenth century, Jr. Horde was subdivided into several domains with the Sultan at the head of each.

In the last quarter of the eighteenth century in the Junior Zhuz happened many historical events in this territory in 1773–1775 he passed the peasant uprising led by Pugachev, and in 1783–1797 years of People’s Liberation Movement podpredvoditstvom Srym Datov. With the approach of Russian military lines to younger zhuzu frequent raids Khiva became the Bolsheviks on the Kazakh border villages. This prompted some Kazakh sultans, such as Sultan beech -son Nuralyhana, migrate to a safe place. Using the sub-support and personal friendship with the chieftain of the Astrakhan Cossack troops P.S.Popovym Sultan Bukei asked Emperor Paul I allow migrations to the area between the Urals and the Volga.

At this time, a huge space between the Urals and the Volga, where once roamed the Kalmyks, but then left the area, was empty. Empty seats do not bring any benefits to Russia, so the Russian

government agreed to migrations villages Sultan Bouquet. Authorizing a decree went out March 11, 1801, but there was no migrations until December of the same year. December 20, 1801 crossed the Ural Sultan himself Bukei 183 tents of his village. On that day, all crossed over 740 people, and with them 24 camels, 1,366 head of cattle, 3,300 horses and 102,500 sheep. Migrations led esaul Astrakhan Cossack troops V.F.Skvortsov (also in 1818 – 1822 years chieftain of the Astrakhan Cossack troops). Thus was formed last Khanate in the Kazakh steppe (khan management in Kazakhstan abolished in the first quarter of the nineteenth century) – Bukey or internal Khanate (1801–1846), is located within the boundaries of the current Western Kazakhstan.

History Bukeyev Khanate very extensive and full of many historical events. Here hanstvoval Bukei Nuraliev (1801–1815), Shygaev Nuraliev (1815 – 1823), Zhangir Bouquet (1823–1845). In Khanate occurred in 1836–1838 years of the national liberation movement led by Isatai Taimanov and Makhambet Utemisov.

In 1841, in the khan's headquarters first school was opened. In recent years, many researchers have noted that for the first time in Kazakhstan tended capitalist land relations.

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Materials of Conferences

**MATHEMATICAL MODELS
FOR FORECASTING THE STATE
OF THE ENVIRONMENT**

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The system to provide the safety of potentially dangerous objects of the city economy created by the united information city system includes two subsystems: monitoring subsystem of the environment state and the subsystem of forecasting the main purpose of which is the warning of extraordinary situations [1]. Some experience shows that more often arising extraordinary situations are connected with the wastes of polluting substances thrown to the environment: to the atmosphere, water and soil.

The warning of the extraordinary situations is based on the information of the current environment state and on forecasting this state in perspective. From the point of designing and elaborating the forecasting subsystem to use these models directly i.e. as they are formulated is not reasonable owing to the following reasons.

All authors consider only one of the indicated environments. Because of this reason they differ both methodic of model building and necessary data for it. By designing and using the forecasting system it would be desirable to have one generalized model so as separate models would enter as a private event. It would be possible to get them from the generalized model by giving them some parameters. Such possibility exists since the mathematical models describing the concentration dynamics of polluting substances in the air, water and soil are based on the laws of mass conservation and characterized by the differential equations in quotient derivatives [2].

One of such equations is the equation of substance diffusion in the homogeneous (ambience) environment (the equation of Fick):

$$\frac{\partial c}{\partial t} = \frac{d}{dx} \left(k_x \frac{\partial c}{\partial x} \right) + \frac{d}{dy} \left(k_y \frac{\partial c}{\partial y} \right) + \frac{d}{dz} \left(k_z \frac{\partial c}{\partial z} \right) - V_x \frac{\partial c}{\partial x} - V_y \frac{\partial c}{\partial y} - V_z \frac{\partial c}{\partial z} + q(t), \quad (1)$$

where k_x, k_y, k_z – are diffusion coefficients;
 V_x, V_y, V_z – is the velocity of flow movement in the corresponding directions (for the when the field is spread in this flow); case
 $q(t)$ – is the intensity of polluting substance wastes (the function of the polluting source);
 c – is the concentration of polluting substance admixtures;
 x, y, z – are rectangular coordinates.

Owing to the Stated reasons the application of the dynamic models with distributed parameters is reasonable. It enables to proceed from the unceasing task to its discrete type and completely use it for receiving the functional dependency describing the process of spreading polluting substances in the environment, the information accumulated in the frames of the monitoring system.

It can be defined as the synthesis of a wide-spread statistical and analytical approach, therefore it is possible to expect it to be more perspective.

The statistical information is used for building the models the structure of which corresponds to physical notions of modulated process. In the process of modulating the model structure can be corrected for the best display of statistical data. It provides the sufficient freedom of the choice.

One of the variants to build the mathematical model of the field to pollute the city atmosphere by using the adaptation principle is the method of group argument account. The example of using MGAA for solving the tasks of modeling to pollute the air basin is considered in [3]. However the possibility of forecasting the change of polluting substance concentration was not considered here at time.

In the given work the main attention is paid just to the questions of forecasting the changes of the environment state on the definite time interval with account that the field of polluting substance concentration is not stationary and heterogeneous and depends both on external factors and on the prehistory of the process development.

Being designed for these purposes the model building methodic includes some steps. First an algebraically interfiled model is built. Herewith there are no restrictions of the quantitative and qualitative compositions of predicates taken into account by a user in the model that is he himself can independently decide what meteoparameters or predicates of another type will be used in the model. Moreover a user is given the possibility to form new predicates on the base of available. A user can also choose a model type on the first stage. This model type may be: linear, sedate or significant.

Let the meaning of the polluting substance concentration q is defined as a certain function $f(\bar{x}, \bar{p})$ depending on \bar{x} – vector of spatial coordinates and \bar{p} – vector of meteoparameters then the model of the lineal type is defined as:

$$q(\bar{x}, \bar{p}) = a_0 + \sum_{i=1}^3 a_i \cdot x_i + \sum_{j=1}^m a_j \cdot p_j, \quad (2)$$

where m – is a quantity of accounted meteoparameters;
 a_i and a_j – are model coefficients;
 a_0 – is a free term.

Sedate model:

$$q(\bar{x}, \bar{p}) = a_0 \cdot \prod_{i=1}^3 x_i^{a_i} \cdot \prod_{j=1}^m p_j^{a_j}, \quad (3)$$

significant model:

$$q(\bar{x}, \bar{p}) = a_0 \cdot \prod_{i=1}^3 a_i^{x_i} \cdot \prod_{j=1}^m a_j^{p_j}, \quad (4)$$

Thus, the algebraic interpolation model is built. It serves the base of building finally difference model on the second stage.

Herewith the forecasting region is covered with an even rectangular net the knot number of which or a step according to corresponding coordinated axis's are defined by a user.

While building so called "exact" finally difference model a pattern is used. It is defined as follows:

$$\begin{aligned} q(t_{+1}, x_0, y_0) &= c_0 + c_1 \cdot q(t_0, x_0, y_0) + c_2 \times \\ &\times q(t_{-1}, x_0, y_0) + c_3 \cdot q(t_{-2}, x_0, y_0) + \\ &+ c_4 \cdot q(t_0, x_{-1}, y_0) + c_5 \cdot q(t_0, x_{+1}, y_0) + c_6 \times \\ &\times q(t_0, x_0, y_{-1}) + c_7 \cdot q(t_0, x_0, y_{+1}), \end{aligned}$$

where $q(t_p, x_p, y_k)$ – are the meanings of admixture concentration in the point with coordinates x_p, y_k defined as follows:

$$x_j = x_0 + j \cdot \Delta x, \quad y_k = y_0 + k \cdot \Delta y, \quad t_i = t_0 + i \cdot \Delta t$$

$$(j, k = -1, 0, +1), \quad (I = -2, -1, 0, +1).$$

The next stage is processing the statistical information. As external selection criteria the following can be used by a user's choice:

– the criterion of regularity at the examination

$$CS = \frac{\sum_{i=1}^{N_A} (q_{w_i} - \hat{q}_{w/a_i})^2 + (q_{w_i} - \hat{q}_{w/b_i})^2}{\sum_{i=1}^{N_C} q_{w_i}^2}, \quad (5)$$

– the criterion of undisplacement

$$RS = \frac{\sum_{i=1}^{N_C} (q_{c_i} - \hat{q}_{c/w_i})^2}{\sum_{i=1}^{N_C} q_{c_i}^2}, \quad (6)$$

– the criterion of forecast stability

$$SNS = \frac{\sum_{i=1}^{N_B} (q_{w/b_i} - \hat{q}_{w/b_i})^2}{\sum_{i=1}^{N_B} q_{w_i}^2}, \quad (7)$$

– two combined criteria

$$i = \frac{\sum_{i=1}^{N_B} (q_{b_i} - \hat{q}_{b/w_i})^2}{\sum_{i=1}^{N_B} q_{b_i}^2}. \quad (8)$$

1. Undisplacement + regularity:

$$\sqrt{SNS + RS} \quad (9)$$

2. Undisplacement + stability:

$$\sqrt{SNS + i} \quad (10)$$

The following signs are used here:

N_C – is a point number in subset of examination point's C ;

N_B – is a point number in subset of checking point's B ;

N_A – is a point number in subset of training point's A ; herewith the equation $N = N_A + N_B + N_C$ is performed N is a point number of the starting multitude observations F , $F = A \cup B \cup C$; the unification of subsets $A \cup B$ is an extraction (W) with the volume $NW = NA + NB$;

q_{w_i} – is the meaning of the polluting substance concentration got as a result of observations, $q_{w_i} \subset W$, $I = 1..N_W$; q_{a_i} – is the meaning of the polluting substance concentration got as a result of observations, $q_{a_i} \subset A$, $I = 1..N_A$;

q_{b_i} – is the meaning of the polluting substance concentration got as a result of observations, $q_{b_i} \subset B$, $I = 1..N_B$;

q_{c_i} – is the meaning of the polluting substance concentration got as a result of observations;

$q_{a_i} \subset C$, $I = 1..N_C$; \hat{q}_{w/a_i} – is the meaning of polluting substance concentration calculated for the points of extraction W by the models whose coefficients were defined the points of extraction A ;

\hat{q}_{w/b_i} – is the meaning of polluting substance concentration calculated for the points of extraction W by the models whose coefficients were defined the points of extraction B ;

\hat{q}_{c/w_i} – is the meaning of polluting substance concentration calculated for the points of extraction C by the models whose coefficients were defined the points of extraction W .

The possibility to use several types of algebraic model for interpolation (lineal, sedate, significant) designing enables the person modeling the process of spreading polluting substance admixture to lay his own ideas about this process and account the meteorological parameters which are at his disposal.

As a result of the program work the algebraic interpolation model of the following type was built:

$$\begin{aligned} q(x', y', v) &= 2,8337 \cdot 1,0135^{-(x')^2} \times \\ &\times (7 - y')^{2,037} \cdot -0,3^v \cdot e^{0,997 \cdot (7 - y')}. \end{aligned} \quad (11)$$

On its base two optimum finally difference models by symmetrical criterion of stability were received:

1) the criterion meaning: 0,006477

the meaning CKO: 0,0512

$$q(t_{+1}, x_0, y_0) = -0,2322 + 21,54 \cdot q(t_0, x_0, y_0) + 0,425 \cdot q(t_{-1}, x_0, y_0) - 0,172 \cdot q(t_{-2}, x_0, y_0) - \\ -1,044 \cdot q(t_0, x_{-1}, y_0) - 0,657 \cdot q(t_0, x_{+1}, y_0) - 9,66 \cdot q(t_0, x_0, y_{-1}) - 9,457 \cdot q(t_0, x_0, y_{+1})$$

2) the criterion meaning: 0,006708

the meaning CKO: 0,0526

$$q(t_{+1}, x_0, y_0) = -0,631 + 0,87 \cdot q(t_0, x_0, y_0) + 0,434 \cdot q(t_{-1}, x_0, y_0) - 0,139 \cdot q(t_{-2}, x_0, y_0) - \\ -0,227 \cdot q(t_0, x_{-1}, y_0) + 0,106 \cdot q(t_0, x_{+1}, y_0) - 0,007 \cdot q(t_0, x_0, y_{-1}).$$

In conclusion we should not that the proposed methodic and realized program module on its base enables to build the forecasting field model of atmosphere pollution. Using algorithms by the method of group argument account permits flexible optimum choice of the model structure by the user's indicated criterion and its predictors. The program realizing these two methodic may be easily adapted to build the models of the similar class and for other environments (for instance: water and soil). It is a premise for creating the united unified system of building forecasting models of polluting the environment.

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*Materials of Conferences***TEST OF REVEALING THE CREATIVE POTENTIAL OF A TEENAGER**

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Projective test proposed disclosure of personal creativity, where teenager analyzing the written text, knows himself. In the course of its application manifest underlying motives and needs, interests, perceptions of itself, the nature of relations with the surrounding teenager. Disclosure of personal creative potential with the help of this technique allows us to develop creative thinking and get more unconscious processes, thus helping young people to move confidently to the target. The technique allows to significantly enhance diagnostic and corrective opportunities psychologists, researchers and educational psychologists.

Dynamic social modernization of Kazakhstan's society people are capable of active, creative, self-sufficient. This situation brings us close to the problems of identifying human potential that may occur in the process of educational psychologists with students. As you know, creativity – is genetic and physiological data, skills, inner creative energy, and any other creative possibilities of man, which can be improved through physical and spiritual self-development and other methods of “different” experts [11]. When a teenager realizes that others believe in its ability to recognize its value as a person, it stimulates his positive self. Then he can realistically assess their capabilities, see the ultimate goal of its activities. Otherwise senior not aware opportunities for internal growth, which can lead to a loss of many resources. Creative potential – it is one of the ways of self-development and the development of creative thinking.

Modern psychological testing a large number of methods and techniques for the study of art, developed in line with the various schools of psychology (Brushlinskii A.V., Davydov V.V., Matyushkin A.M., Shumakova N., Dzhakupov S.M., Satova A.K., Zheksenbaeva U.B., Akylbaeva G.J. et al.) [5], [4], [1], [8], [15]. Creativity is an important component of the human person. His study is due to a number of difficulties due to limitations of existing methods of psycho-diagnostics. The main difficulties are related to the internal factor of creative energy, a limited list of skills to be psycho-diagnostics, the influence of the physiological state of the subject, time-consuming processing and application of statistical methods. Develop reliable and easy to use projective techniques disclosure creativity is urgent request of psychological practice [1], [2].

This study we conducted in accordance with the theoretical concept Ponomarev Y.A., where creativity in the broadest sense there any interaction leading to the disclosure of internal capacity – is the mechanism of development. Creativity – a necessary condition for the development of matter, the formation of its new forms, together with the emer-

gence of that change themselves forms of creativity. Human creativity is only one of these forms. The psychology of creativity must to study human interactions (subject) with any object, leading to changes in the subject and the object, and these changes themselves. (Ponomarev Y.A. 1976: 23–26). Therefore, diagnostic methods aimed at identifying the most important characteristics of creative thinking and opportunities for their development and implementation. We understand that the projective method has its limitations, which tried to take into account in the development of this technique [9].

The purpose of research – development and implementation of the author's test for creative potential teenager.

The sample of subjects was 200 adolescents, students in Grade 10 secondary schools of Almaty region at the age of 15–16 years, the experimental (n = 100) and control (n = 100) groups. The rationale for developing the effect is to compare the experimental and control groups.

The hypothesis of the study: creative potential positive effect on the development of creative thinking of teenagers.

Objectives of the study:

1. To develop and test a methodology for unlocking the creative potential of adolescent and assess the feasibility of its use;
2. Conduct a test to identify the level of creative thinking of senior control group (CG) and experimental (EG) groups after the disclosure of creativity techniques teenager.

The study was conducted in two stages.

Methods. In the first phase was implemented projective technique disclosure creativity teenager. This technique relates to projective psycho-diagnostic methods. It allows you to fix some behavioral responses teenager in different conditions, especially the inner world, which are difficult to detect by other means – anxiety, personality traits, even suicidal tendencies. The technique is used as a diagnostic tool and (or) as a means of developing and remedial work, it helps to create a psychological portrait of the person and develop creative thinking person. Its use requires highly skilled educational psychologist.

The advantage of the methodology of disclosure of creativity teenager due to the fact that its purpose is “veiled”, the test can not predict the methods of interpretation of indicators, their relationship with various manifestations, so it does not apply protective reaction. The main features of this method 1) the certainty of stimuli used; 2) there are no restrictions in the choice of subject; 3) the lack of evaluation of the responses as right or wrong.

Description of the test. We have developed a method of revealing the creative potential of adolescents conducted in 7 steps (steps).

During the conversation, educational psychologist identifies and records significant for a teenager

key concept (eg – “Examination”). The term “key” was introduced to explain the special role of these notions with respect to the analyzed situation, this concept reveals the meaning of the work.

Gives the following instructions: “Make a word using the letters of the word “Examination”. Educational psychologist writes them and each proposed student word held communication, association with a key concept – “Examination” (time, mine, men, ait, aim). It is important that the young person has sounded the way he connects with the words “Examination”. Verbalization may not be an adequate substitute for inner experience of the pupil. What tells the teenager depends on his personal characteristics and how he perceives the concept of “Examination”. For a thorough analysis of specific words and phrases, uses a teenager can show the contents of the unconscious, which is not clearly visible in the very answers.

Now a teenager writes a story (essay, poem, short story), using 1, 2, or all the words written on the board as the key. Tikhomirov D.C. emphasized the complex nature of the act of making assignments and explained a number of reasons. One of them – ... polymotivation of activity, so the adoption of such a binding job involves not one but a whole group of motives. In the process of solving the initial motivation can “to acquire” additional motifs (both internal and external), in addition, there may be new ideas that reflect the nature of the creative thinking process and contribute to its development, rather than the “decay” [9]. In adolescents likely to be associated with the real object or a fabulous way. Going unconscious identification student with this image. When a teenager writes about the characteristics of his character – he talks about himself, not even realizing it. When writing fairy tales must fulfill the following conditions:

1. “Now you can write a story about ... Write down whatever you want, because it’s only your tale”. Writing a story, a teenager makes it known through active correlate with having a unique personal experience of interaction with objects and phenomena of reality, assessing how their own actions and the actions of others;

2. If the number of words proposed by the teenager – 12, then the job is allocated 6 minutes when 18 words, then – 9 min., Respectively – from 5 to 10 minutes (the number of words to be divided by 2). As noted Izard K.: “... Lack of time is an impor-

tant determinant of force applied to the solution of mental problems: it causes increased stress, mobilizing the energy resources of the individual” (Izard, C. Peter, 2007 p. 155).

3. The story has a happy ending, it is important that on a subconscious level and the adolescent has developed a positive attitude. The founder of the psychological school of installation Uznadze D.N. wrote that “Perception possible only after the formation of the corresponding installation this perception. Perception is a product created by the implementation of the installation” (Uznadze D.N., M. 1949 p. 39). This setting can come into connection with the past experience of man, to fix previously unrealized settings, and thus in the process of drawing up the tale reveals creativity adolescents [14].

Teenager reading a story aloud, then educational psychologist analyzes the work of the scheme Vachkov’s I.V. [3]. Analyze a story can be shared with the author, but it should be done very properly, focusing on the positive aspects of the story.

After a story together discussed the need to select the appropriate unit of analysis – meaning one speech or piece of content that serve as an indicator of interest in the text of an educational psychologist phenomena. In this method as a basis for analysis taken part of speech – verb and adjective. Carefully read the text and highlight it verbs, emphasizing two parallel lines, as well as adjectives – a wavy line. This information will reveal the educational psychologist significant experiences, actions, achievements and difficulties encountered in the life of a teenager and learning activities. Next, you need to count the number of verbs and adjectives, written in a fairy tale. Verbs will help answer the question – “What can I do? What I can do?”, And adjectives – the question: “What I really?” As a rule, the number of verbs more than adjectives, which may indicate that people do not often think about their personal qualities. Such analysis “... reveals a latent tendency to objectify and in the responses of the test. Products creativity (in our case – a fairy tale), provide material for studying the characteristics of cognitive and emotional spheres teenager, his internal conflicts, latent needs and experiences. In this case, the creative process and the analysis of its results is not only as a means of psychological diagnosis, but also as a therapeutic device” (P. Torrance 1974).

Performance of tests on P. Torrens in the control (Form A) and experimental (Form B) a group of teenagers

Form	Summary	Fluency	Flexibility	Originality	Elaboration
A (CG)	116,8	40,3	45,0	47,5	41,0
B (EG)	211,8	49,2	55,9	45,7	50,0
* p < 0,05; ** p < 0,01	38,0**	8,9**	10,9**	9,2**	9,0**

Note. * P < 0.05; ** P < 0.01 for T-Wilcoxon test.

Very important to the semantic analysis, if necessary, correct all bid. If negative met within the meaning of the verb or adjective need to replace it with the opposite notion (eg: failed – took off, terrible – beautiful, etc.). This technique has great psycho effect when the teenager “removed” from the depths of his subconscious bad image and, together with educational psychologists transforms it. Then you need to discuss with your teen which option he likes and what he felt his character at the end of the tale, the student could be proud of their hero, why. At the end of the work, if desired, a teenager can be saved as a mascot option “new” stories.

The second phase of the study was to test the effectiveness of an experimental realization of a technique for creative potential teenager using a test of creative thinking P. Torrance.

Among the diagnostic methods of creative thinking the best known and widespread in the world are the tests of creative thinking P. Torrance. These tests may be used to develop new methods of unlocking the creative potential as a certain common standard. P. Torrance Tests are intended for use for various purposes:

- 1) in studies of human intellectual development;
- 2) research related to the individualization of learning;
- 3) to disclose internal resource person;
- 4) the development of correctional and treatment programs;
- 5) when evaluating the performance of various experimental programs;
- 6) for identifying children with hidden creative potential [13].

P. Torrance tests that have been used by us – curly shapes include four battery tasks: verbal and curly shapes A and B, which are equivalent to each other. Implementation of these tests is evaluated on the following parameters: speed, flexibility, originality; careful design ideas. Curly tests consists of three sub-test, the execution of which 30 minutes (10 minutes each). In applying the test instructions are copyrights followed as in the test procedure and the results of the processing.

The results. Comparison of test P. Torrance conducted in the control (n = 100) and experimental (n = 100) groups. Table shows comparative data on the performance of creative thinking: his fluency, flexibility, originality and thoroughness of the development of ideas – in the CG (Form A) and MG (Form B). All raw data transferred to T-scale, according to the standardization of indicators drawn P. Torrance. Since the data in our sample numbering 200 persons aged 15–16 years differed little from the corresponding age norms P. Torrance, standardization of data was made.

Analysis of the results showed that the experimental group, all private, and therefore the overall performance of creative thinking is significantly higher than that of the control group of adolescents. It is important to note that the strongest differences in the magnitude of changes in indicators of creative thinking in the experimental and control groups were marked by originality.

Conclusion. Unique material produced educational psychologist working with this multi-layered technique. It allows you to choose different levels of analysis – an objective, limits, an indication of the number of written proposals to not always paranormal values that are associated with the unconscious motivations of the individual. It should be noted that the method of the disclosure of the creative potential of a teenager can be carried out both in the individual mode and with the group. Data obtained using this technique should not be taken as definitive, but they help to find ways of further research, it is difficult to get into objectified personality traits teenager elusive in the traditional organization of the educational psychologist and can not be adequately quantified.

Curly shapes A and B test P. Torrance used to assess the development of creative thinking of students after using the technique on the creative potential of a teenager. Comparison of the figures obtained in the experimental and control groups showed high efficiency of this test.

Thus, the purpose of our work is the development and study of methods of disclosure creativity teenager realized. The hypothesis of the study: “creative potential positive effect on the development of creative thinking of teenagers” was confirmed. Tasks implemented.

This technique can be of great help in the educational psychologist and serve as diagnostic, therapeutic and corrective tool, its use contributes to the creative potential of a teenager.

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*Materials of Conferences***ELECTRONIC TRAINING COMPLEX
“DISPATCHING CONTROL OF
ELECTRICAL POWER SYSTEMS”**

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There are many digital courses on various disciplines, created in different digital educational environment, but among them all we were unable to find analogues in master's disciplines, related to operative-dispatch management in electric-energetic systems, therefore, it proves urgent to describe principles of projecting, structure, functional purpose, methodic of implementing digital training-methodical complex (DTMC) within educational process, created with usage of modern simulation systems for professional operative personnel training [1, 2].

Nowadays the department of electric systems and electric technical facilities carries out works of creating a digital DTMC on operative-dispatch management within electric-energetic systems that includes a block of business games with usage of regime simulators and simulators of operative switch.

The basic purpose of creating such DTMS is to form a professional competence via specialized programme means and multimedia technologies. The foundation of DTMC principles is formed of didactic, psychological, methodical, and ergonomic requirements towards DTMC. IN order to develop a DTMC, we have selected digital educational environment (module objective-directed training system) LMS Moodle that allow us to create a complete module of digital training materials from standard means with an ability to edit and manage them. The basic objectives are: development of concept and structure of DTMC, methodical provision of business games, organization of audit and independent work of students, technical and instrumental equipment of audiences.

The described DTMC includes the following basic components: digital textbook, laboratory practical guide in form of business games, and block of training results diagnostics. The digital textbook is designed for independent learning of theoretical material by students. A test system realizes functions of checking flow and results of theoretical and practical mastering of education material by students. Laboratory practical guide contains methodical guides for business games on operative switch in electric facilities and maintaining electric-energetic system regime. A simulator of operative

switch “Modus” has been selected as a tool for business games on operative switch. Regime simulators of dispatcher “Fenix” and “Finist” have been selected as a tool for business games on maintaining EES [3]. As shows the practice of training personnel of energetic enterprises, it is reasonable to use regime simulators and simulators of operative switch in order to obtain the necessary professional skills as they reflect nature of operative personnel activity in different regimes of operation of electric-energetic systems. Implementation of simulators within educational process requires development of a special training-methodical provision, as students use them as educational, but not training systems.

As primary results show, business games are an efficient method of mastering a wide circle of practical problems on management in electric energy sector by students. This fact supports the purposefulness of their further development as an element of educational process DTMC enables a tutor to assist students in learning and systematizing theoretical knowledge, present material in different ways, combine various technologies of education, control quality of education, realize individual approach towards training, and manage individual work of students. Development of DTMS on operational-dispatch management in electric energy systems within digital training environment Moodle will allow us to present educational materials in a convenient multimedia form, evaluate knowledge quality via testing tasks, and masters will be able to implement the totality of received knowledge and skills during the process of business games and their professional activity.

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