ISSN 2700-8622

EURASIAN EDUCATION, SCIENCE AND INNOVATION

Journal

PROCEEDINGS OF THE XVIII INTERNATIONAL SCIENTIFIC PRACTICAL CONFERENCE "EDUTECH: NEW HORIZONS"

XVIII ISPC ETNH

29-30 December 2023 Aachen, Germany

Volume 17, January 2024

Published Aachen

ISSN 2700-8622

Eurasian Education, Science and Innovation

Journal

Volume 17, January 2024

PROCEEDINGS OF THE
XVIII INTERNATIONAL SCIENTIFIC PRACTICAL CONFERENCE
“EDUTECH: NEW HORIZONS”
XVIII ISPC ETNH
29-30 December 2023

Published by Shan Engineering Consulting
http://www.euco.kz

OPEN ACCESS

Requirements for the authors.

The manuscript authors must provide reliable results of the work done, as well as an objective judgment on the significance of the study. The data underlying the work should be presented accurately, without errors. The work should contain enough details and bibliographic references for possible reproduction. False or knowingly erroneous statements are perceived as unethical behavior and unacceptable.

Authors should make sure that the original work is submitted and, if other authors' works or claims are used, provide appropriate bibliographic references or citations. Plagiarism can exist in many forms - from representing someone else’s work as copyright to copying or paraphrasing significant parts of another’s work without attribution, as well as claiming one’s rights to the results of another’s research. Plagiarism in all forms constitutes unethical acts and is unacceptable. Responsibility for plagiarism is entirely on the shoulders of the authors.

Significant errors in published works. If the author detects significant errors or inaccuracies in the publication, the author must inform the editor of the journal or the publisher about this and interact with them in order to remove the publication as soon as possible or correct errors. If the editor or publisher has received information from a third party that the publication contains significant errors, the author must withdraw the work or correct the errors as soon as possible.

CONTENT

--- EDUCATION ---

--- ENGINEERING ---

--- EDUCATION ---

MODERN TECHNOLOGIES FOR TRAINING KAZAKH STUDENTS IN RUSSIAN LANGUAGE CLASSES

Aladina A.A., Minaidarova M.E.

Taraz Regional University named after M.H. Dulati, Taraz, Kazakhstan

Abstract: The article researches modern teaching methods (active methods) which are used in Russian language classes at the University.

Keywords: *modern learning technologies, presentation, group work, dialogue.*

Modern teaching technologies are the main ones in realizing the goals of problem-based and developmental learning, they help lead students to generalization, develop the ability to think independently, teach the ability to organize and implement collaboration and collaboration with teachers and colleagues, adequately convey information, display subject content and conditions of activity in speech. Practice shows that the use of active methods in vocational training is a necessary condition for the training of highly qualified specialists and leads to positive results: they allow the formation of knowledge, skills and abilities of students by involving them in active educational and cognitive activities, educational information passes into the personal knowledge of students.

The term “activity” is widely used in various fields of science. “The Explanatory Dictionary of the Living Great Russian Language” by V. I. Dahl contains the following definition of activity: “Active is active, active, vital, lively, not inert” [1, p. 32].

In the Explanatory Dictionary of the Russian Language, edited by D.N. Ushakov’s activity is called “active, energetic activity” [2, p.26]. In the “Concise Psychological Dictionary” the term “activity” is defined as “a universal characteristic of living beings, their own dynamics, the source of transformation or maintenance of vital connections with the outside world, the ability to independently react... It is characterized to a greater extent by the conditionality of the actions performed, the specificity of the subject’s internal state” [3, p.15].

Activity in learning, of course, is a condition for the conscious acquisition of knowledge, skills and abilities. The problem of individual activity in learning is one of the most pressing in psychological and pedagogical science, and in educational practice. There are three levels of activity in the educational process:

- reproduction activity – the student’s desire to understand, remember, reproduce knowledge, master methods of application according to a model;
- interpretive activity – is associated with the student’s desire to comprehend the meaning of what is being studied, establish connections, and master ways of applying knowledge in changed conditions;

- creative activity – the student's desire for a theoretical understanding of knowledge, independent search for solutions to problems, intensive manifestation of cognitive interests.

The direct involvement of students in active educational and cognitive activity during the educational process is associated with the use of techniques and methods called active learning methods.

The foundations of active teaching methods began to be developed back in the 2nd half of the 1960s and early 1970s (works of M.M. Birshtein, T.P. Timofeevsky, A.A. Verbitsky), and this was connected, firstly turn, with the search for ways to activate students in the learning process. Determine the sequence of intermediate goals and corresponding actions, taking into account the final result; foresee the possibilities of obtaining a specific result when solving problems; carry out ascertaining and predictive control based on the result and method of action.

Modern learning technologies are classified as educational technologies, designated as "technologies for modernizing learning based on the activation and intensification of students' activities." The main indisputable advantages of this technology are a high degree of independence, initiative, development of social skills, formation of the ability to obtain knowledge and apply it to practice, development of students' creative abilities.

A feature of modern teaching technologies is that they are based on an incentive for practical and mental activity, without which there is no movement forward in mastering knowledge. Active learning methods include: didactic games. Solving problem problems, business games, round tables, debates, discussions, trainings, project method [4, pp. 23-45]. All these methods perfectly meet one of the main requirements of modern education - the formation of critical thinking in students.

When using modern teaching technologies, the task of the teacher is to create conditions for student initiative. The teacher performs the function of an assistant in the work, one of the sources of information. Students' initiative and their own search for knowledge help make the educational process more productive. In addition, active methods help implement student-oriented pedagogical technology.

Famous teacher L.S. Vygotsky formulated a law that says that learning entails development, since the personality develops in the process of activity. It is through active work, skillfully guided by the teacher, that students acquire the necessary knowledge, skills, abilities for their professional activities, and develop creative abilities. Active methods are based on dialogical communication both between the teacher and students, and between the students themselves. In the process of dialogue, communication skills, the ability to solve problems collectively develop, and, importantly, students' speech develops.

Modern teaching technologies simultaneously solve three main cognitive problems; communicative and developmental; social orientation. They allow you to implement a subject-subject approach in organizing educational activities; to form actively - cognitive activity of students; increase motivation to study the

subject; create a favorable atmosphere in class; exclude monologue presentation of material and duplication of information that can be obtained from available sources.

Already at the beginning of the twentieth century, many scientific teachers and psychologists saw the need to develop new teaching methods to enhance the learning activities of students. This problem remains relevant today. In realizing the goals of problem-based and developmental learning, there are active methods that help guide students to generalization, develop the independence of their thoughts, teach them to highlight the main thing in educational material, develop speech, and much more. So, active learning methods are one of the main components of the modern educational process. This is the dictate of our time - to be active in everything and everywhere.

In our opinion, the use of modern technologies in the classroom makes the learning process lively, interesting, varied, and creative. During such classes, Kazakh students acquire certain knowledge, and the teacher will be satisfied with the result.

Let's look at the modern teaching technologies that we use in Russian language classes. Presentations are the simplest and most accessible method for use in practical classes in the Russian language. This is a demonstration of slides prepared by the students themselves, for example, on the topics: “Russian language in the world, Kazakhstan. Russian language and my specialty,” “Lifestyle (features of work, leisure, communication, range of interests),” “Lifestyle (clothing, design and functionality of the home)", "Free time, recreation, interests, hobbies (art, sports, travel)", "Cultural recreation: theaters, museums, festivals, exhibitions, concerts, literature, music. The role of art in human life." Basket method + Business games (including role-playing, simulation) - a fairly popular method. During the game, students play the roles of participants in a particular situation. Thus, when conducting classes on lexical topics “History of the city: foundation, historical events. The historical center of the city and modern areas” students act as a guide and conduct excursions to the historical places of the city. At the same time, the purpose of the excursion is to collect and convey information about the sights of the city of Taraz. Project method - students independently develop a project on the topic “Travel Company” and defend it. At the very beginning of the lesson, students formed small groups. Various strategies can be used to form groups. Small groups of four to five people are formed, depending on the number of students. The composition of the group is not permanent; in subsequent classes it is selected taking into account that the educational capabilities of each group member can be realized with maximum efficiency for the team, depending on the content and nature of the work ahead. The next stage is group work: familiarization with the topic, planning work in the group; distribution of tasks within the group; discussion of individual results of work in a group; discussion of the general task of the group (comments, additions, clarifications, generalizations, summing up the results of the group task).

The goals of group work can be defined as follows: development of critical thinking of students; the ability to think logically on the proposed topics; the ability to concentrate on the essence of the problem; building self-confidence; ability to work in a team, improving oral communication skills; rhetoric skills; speech etiquette for public speaking. An important point when forming small groups is the distribution of roles. For example, the roles could be the following: Leader, Secretary, Chronicler, etc.

Round table (discussion, debate) is a group type of method that involves students' collective discussion of problems, proposals, ideas, opinions and a joint search for their solution. The main value of this method is that participants develop dialectical thinking and solve pedagogical problems by involving students in a relaxed, lively conversation. Let us illustrate what has been said with a debate on the topic: "A modern student... What is he like?" Teams prepare answers to the following questions and tasks: 1) What are the main values of a modern student? 2) Domestic and Western scientists say that education is becoming a commodity. Do you agree with this statement? 3) Is it interesting to be a student nowadays? 4) Make a social portrait of a modern student, etc. When planning this form of work in Russian language classes, we try to create the most favorable conditions for the inclusion of each student in active work. When organizing work in pairs and groups, disputes arise, different options for solving the identified problem are discussed, and mutual learning occurs in the process of educational discussion and dialogue.

Thus, the use of modern training technologies is a necessary condition for the training of highly qualified specialists and leads to positive results. They allow students to develop knowledge, skills and abilities by involving them in effective educational and cognitive activities, develop the ability to apply acquired knowledge in new situations in independent living conditions, as well as the ability to think outside the box, analyze and argue their point of view, allowing them to adapt more effectively in a modern, rapidly changing world.

References

1. Dal' V.I. Tolkovyy slovar' zhivogo velikorusskogo yazyka. - M.: Russkiy yazyk, 1981. - 699 s.
2. Tolkovyy slovar' russkogo yazyka v 4-kh tomakh pod red. D.N.Ushakova. -M.: Terra, 2007. - 587 s.
3. Petrovskiy A.V., Yaroshevskiy M.G. Kratkiy psikhologicheskiy slovar'. - Politizdat, 1985. - 487s.
4. Bel'chikov YA.M., Birshteyn M.M. Delovyye igry. - Riga: AVOTS, 1989. - 304 s.

THE IMPORTANCE OF DEVELOPING STUDENTS' SCIENTIFIC THINKING BASED ON STEAM TECHNOLOGY

[1]Botabaeva A.Y., [2]Koshkarbaeva B.E. [3]Telbaeva U.D.

[1]Taraz International Innovation Institute named after Sherkhan Murtaza, Taraz city
[2]Children's Creativity Development Center "Orken" for educational work Zhambyl Region, Merke District
[3]School-gymnasium No. 49 named after Y. Altynsarin, Taraz city

Abstract: The article discusses the importance of developing students ' scientific thinking based on STEAM technology.

Keywords: steam technology, students, scientific thinking, development, education.

In the modern world, it is not enough just to know, to realize what you have learned and get higher results and products this is the main requirement that this technology craves. The main attention is paid to the fact that students can not only learn and create, but also think, develop consciousness, improve memory and the quality of creativity. Because through these values, the student develops and develops a comprehensive personal activity competence. One such technology is STEAM technology. STEAM technology is a unique zamamanui teaching technology, which is based on the creation of excellent results and products, combining the main branches of Fundamental Science-S-science, T-Technology, E-engineering, a-art, m-mathematics in one channel. The goal is to allow the student not only to have theoretical knowledge in a specific subject or series of disciplines, but also to develop it and implement it in practice.

Steam technology it is an integrated system of methods in education and training. Through this, various scientific thoughts and conclusions are tested, tested in practical terms and studied in the real life sphere. On this basis, a system of spatial communication between the school, society and the world is implemented, various projects and Methods, systems of actions that have been tested within the framework of this technology are implemented and created for the benefit of the people.

Steam technology it is an integrated system of methods in education and training. Through this, various scientific thoughts and conclusions are tested, tested in practical terms and studied in the real life sphere. On this basis, a system of spatial communication between the school, society and the world is implemented, various projects and Methods, systems of actions that have been tested within the framework of this technology are implemented and created for the benefit of the people.

Steam technology it is an integrated system of methods in education and training. Through this, various scientific thoughts and conclusions are tested, tested in practical terms and studied in the real life sphere. On this basis, a system of spatial communication between the school, society and the world is implemented, various projects and Methods, systems of actions that have been tested within the

framework of this technology are implemented and created for the benefit of the people.

Our children must be internationally competitive in various fields, including artificial intelligence and large-scale data generation.

At present, STEAM education is an important and urgent problem associated with the rapid development of digital technology and the rapid development of digitalization of all spheres of human activity, requiring special attention at all levels of the education system.

This is a comprehensive training that involves the simultaneous study of the basic principles of the Exact Sciences. These include Natural Sciences, Engineering, Mathematics, technology. Children learn to see the interconnection of events, better understand the principles of logic and, in the process of creating their models, find something new and unusual. An integrated approach contributes to the development of their educational passion and involvement in the educational process

Benefits of STEAM education:

- integrated training in subjects, not subjects;
- application of scientific and technical knowledge in real life;
- development of critical thinking and problem solving skills
- build confidence in your own strength;
- active communication and teamwork;
- development of interest in technical disciplines;
- creative and innovative approaches to projects.
- develop motivation for technical creativity through their activities, taking into account the age and individual characteristics of each student;
- early career guidance;
- preparing students for technological innovations in life.

The four basic principles of STEAM education:

1.the project form of Organization of the educational process, during which students are united in groups to jointly solve educational tasks.

2.the practical nature of educational tasks, the result of their solution can be used for the needs of the family, class, School, University, Enterprise, City, etc.

3.interdisciplinary nature of training: educational tasks are compiled in such a way that it is necessary to use the knowledge of several academic disciplines at once to solve them.

4.coverage of disciplines that are key to training an engineer or specialist in applied scientific research: disciplines of the Natural Science cycle (Physics, Chemistry, Biology), modern technologies and engineering disciplines.

What to teach and learn

- critical thinking;
- take responsibility for yourself and make decisions;
- create interactive models;
- create your own products;

- mastering project culture;
- rely on your own experience

Appeared as a kind of synthesis of technology and art. To include the art component, the arguments were different: increased interest in technical disciplines, the development of both hemispheres of the brain for greater efficiency in cognitive activity, etc.:

1. Project thinking

Project thinking allows you to analyze the problem in several stages. Project thinking helps to express their idea with the help of bright and affordable visual tools, a detailed sketch, computer graphics

2. spatial thinking

As a factor in the formation of the prerequisites for successful socialization. Spatial thinking teaches to perceive the object as a whole, to look at it from all sides. Develops entrepreneurial skills, the ability to look not only with the eyes, but also with the mind, understand the structure of a volumetric form, reproduce it in the mind, imagine projections, other angles.

3. clear vision

The artist's view of the world and life phenomena. When working with nature, the artist performs important analytical operations – in order to depict the subject on the plane of the sheet, he must highlight the features inherent in this topic, generalize them and highlight only the essence. The ability to fix in their minds the most important features of an object or phenomenon, person, situation, etc.is an important skill that is necessary not only for artists, but also for figures of any industry.

4. humanitarian component of Culture

In objects of culture, especially those that have proven their authenticity over time, people have learned to express values that do not change for a person and society as a whole. Thanks to the relationship with Real works of art, one learns to accurately identify what is destructive and truly creative for a person, for his thinking, culture and Society [1].

Today, STEM-and STEAM-educational approaches are advancing in two main areas:

1.STEM/STEAM for everyone-literacy development.

2.training of personnel in high-tech industries.

The first direction has an impact on providing each student with innovative thinking tools and experience in how to use mathematics, engineering and science to solve various professional problems. To do this, it is necessary to develop logic, digital literacy, a scientific view of the world and carry out collective creative projects that help form the ability to divide goals into tasks and use creative thinking in solving the problem at hand.

Within the framework of the STEAM - educational concept, the importance of additional education can be traced in several ways:

First of all, the modern educational process is characterized by the integration of formal and informal education, which implies an emphasis on its recognition and assessment from the process of obtaining knowledge, regardless of the specific place of acquisition of knowledge and skills. This increases the role of additional education in the general education system, which balances their importance in the process of obtaining knowledge

Secondly, another requirement for the implementation of STEAM education is the active use of creative spaces and integration platforms for students of various specialties and specific business sectors and industries, academic and vocational education. This is possible only within the framework of additional education. A prerequisite for such platforms is joint work within the framework of a modern school with projects initiated by specific customers, since appropriate specialists and certain hours of training are required. For this, there are integrated programs that help integrate content from different subject areas.

References

1. Botabaeva A. E., Koshkarbayeva B. E. the use of STEAM technology in the context of additional education: an educational and methodological manual. - Taraz, 2023. - 41 p.

INTRODUCTION OF VISUAL NOVELS ON RUSSIAN LANGUAGE THE INFLUENCE OF VISUAL NOVELS ON THE LITERACY OF RUSSIAN SPEECH

Zhalmanova D. R., Mykhanova Zh. B.

Taraz regional university named after M. H. Dulati, G. Taraz
janar-dana_04_13@mail.ru, 7171@mail.ru

Abstract: this article reveals the importance of the influence of visual novels on Russian speech literacy, conducts research to confirm the benefits of modern innovative teaching methods and familiarize the younger generation with classical literature, as well as teaching the rules of the Russian language.

Keywords: *visual novels, short story games, literacy of Russian speech, modern times, youth, classical literature, innovations, plot, characters, research, digital industry.*

Objective: To study the influence of visual novels on the literacy of Russian speech in children, adolescents and adults.

Novelty: Visual novels are a modern game format that combines elements of an interactive book accompanied by sounds, illustrations and background music. The novelty lies in the fact that this study can become an integral part in the study of classical and modern literature for readers of different ages.

Relevance: In modern times, the younger generation rarely reads classical literature and books, spend a lot of time on the phone, laptop and computer games. Therefore, novel games can become an effective tool for the development of literate Russian speech, especially in children and adolescents. Thus, studying the impact of novel games on speech literacy can be useful for educators, parents, and game developers.

Hypothesis: Visual novels can have a positive effect on speech literacy, especially in adolescents and children, as they are an interactive form of learning that can help develop reading, writing and grammar skills, as well as fantasy.

Visual novels or short story games are a type of computer game genre in which the narrative of the text prevails with the accompaniment of a visual background, sounds and music. The main advantage of these games is that they provide a choice to the reader, thereby the development of the plot becomes diverse, and the story being told acquires a unique storyline. As a rule, in these visual novels, a significant feature is the rich number of plot branches, which range from five to twenty and above. They have fascinating stories and characters, in addition, visual novels can have different endings depending on the reader's actions, which can create a sense of uniqueness and control over the story. Therefore, such a feature is the reason not only for the development of human speech, but also for the development of imagination.

In the digital age, short story games can have a positive impact on the development of Russian grammar in humans, as visual novels can teach new words, phrases, proverbs or sayings that can be used in writing, thereby, a person

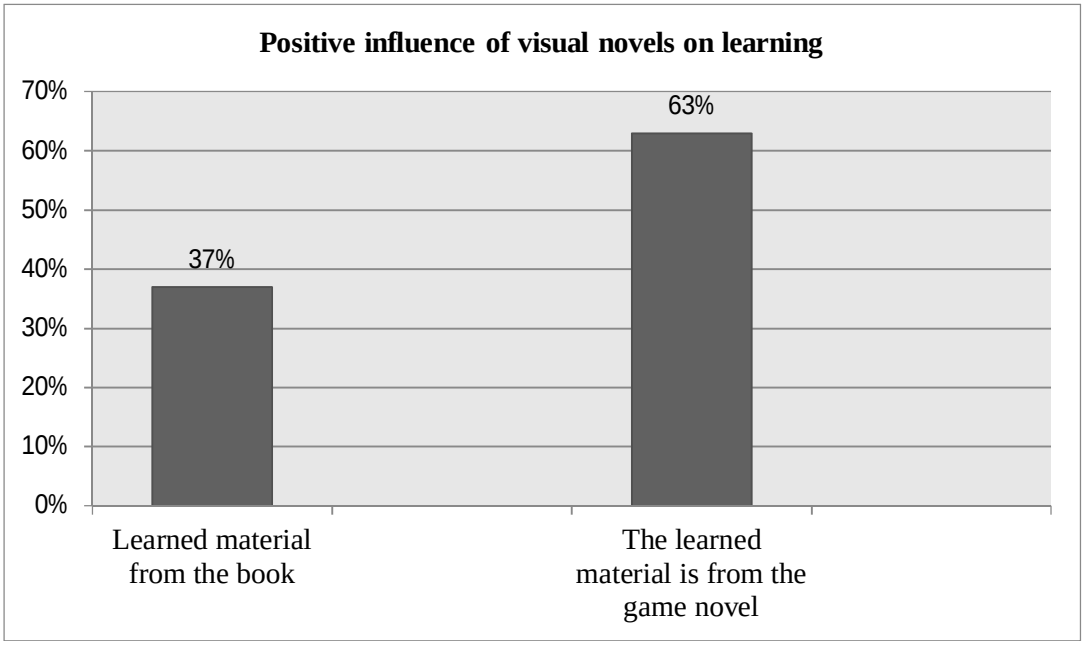
reading these expressions involuntarily remembers their correct spelling. In addition, short story games can be compared to modern e-books [1].

Usually, in such interactive games, there is one of all the branches of events that is original, since it is created from the original source, according to which the visual novel was made. This genre of games is an excellent opportunity to turn Russian classics into a visual novel, thereby introducing literature to the future generation [5]. Ideally, such an interpretation is suitable for plays, for example, M. Gorky's "At the Bottom", where a large number of dialogues prevail in the work, which, with visual design, will be easier for the reader to remember. You can also give an example of a novel by F. M. Dostoevsky's "Poor People", where the notes of the main characters will be displayed in combination with the set background, thereby immersing more into the atmosphere of the work. The reproduction of visual novels based on classical literature can have several purposes. Firstly, it can help the younger generation to better understand and remember the plot, as well as the characters of the work, since in classical literature, for example, in Leo Tolstoy's novel "War and Peace" there are from 559 to 570 actors. Secondly, it can help to develop reading and writing skills, since visual novels require the reader to actively participate in the process of reading and analyzing the text. Thirdly, it can be an interesting way to attract children and adolescents, as well as adults, to classical literature, thereby developing a love of reading and classical literature [2].

Creating visual novels based on the works of great writers and poets can be an effective and easy way to get acquainted with literary works, as well as simultaneously develop reading skills. For example, according to the story of Dmitry Mordas "Bunny", a short story game was created by Russian developers. Consequently, after the appearance of the visual novel, the players were given special interest in the original work. Based on this example, it can be concluded that such short story games arouse interest in the original source, thereby making it possible to translate Russian classics into interactive novels so that young people and children would be independently interested in and acquainted with the works of great writers and poets. Revealing the concept of the visual novel "Bunny", the game added an atmosphere in the form of appropriate sounds, illustrations, music, terrifying or conversely calm, as well as the text of the narrative itself. However, this visual novel and story are not suitable for reading by persons under the age of majority, as it belongs to the horror genre, and the game has a gloomy and oppressive atmosphere of a winter village, inevitability and school problems. The action takes place in the 90s, so the older generation can remember, after reading both the story and the short story game, plunge into the world of the past. The short story game "Bunny" is atmospheric, crushing with its surprise and unpredictability with each scrolled text. Full immersion in a small world, empathy for the characters, as you begin to put yourself in their place, and you see, it seems, something catchy, stand out in such simple characters. In the past, the same eerie and oppressive atmosphere was given by the works of N. V. Gogol. For example, "Viy", which still keeps in horror with every page read, interpreting a novel into a

game, can also introduce the younger generation to unusual classical Russian literature in the progress of the digital industry [3].

This study was conducted on a small group of people of different ages who were provided with plain text and text in the form of a short story game. For the research, a small novel game similar in genre was developed, containing an accompaniment of sounds, images and interactive scrollable text. After that, the participants were asked questions about the sequence of the narrative, the details and the correct spelling of the words, first after the traditional narrative, and then in the format of a visual novel. Of the 11 people, 7 people learned the material better according to the format of the novel game, the remaining 4 people according to the traditional format. The results showed that the effective result was achieved precisely when using the game form. As a result, it occurs through the use of associations of background images or sounds that help to remember the correct spelling of words. In comparison with the usual text, novel games turned out to be more effective for memorizing details. Visual novels use a variety of learning methods such as repetition, visualization, and interactivity, which helps readers better assimilate the material. Consequently, the importance of using innovative, interactive teaching methods to improve the quality of education is confirmed [4].



Ordinary material from a book and a novella with the same text content may have several differences in favor of memorizing information:

1. Interactivity. The visual novel offers the player active participation in the story. Consequently, it allows the player to better remember details and events, as he becomes part of the story and immerses himself in the atmosphere of the plot.

2. Visual elements. Igra-novela often contains visual elements, such as illustrations, animations, helping to visualize the plot and characters, which can make memorization more effective.

3. Sound accompaniment. A novella can use background music, sound effects, and even voice acting to create atmosphere and emphasize emotions.

4. Emotional attachment. A play-novella can create a stronger emotional connection with the reader, as there is an interaction with the characters, causing more vivid emotions and lingering in the memory.

In conclusion, it can be concluded that visual novels can have a positive effect on the literacy of the Russian language. Thanks to the interesting and exciting format, they can interest adults, teenagers and children in reading the original work, after passing the game-novella. Therefore, visual novels are an effective tool for introducing classical works to the modern world and improving literacy of the Russian language.

References

1. Fomenko, Yu.V. Modern Russian literary language. Lexicology: textbook / Yu.V. Fomenko. - M.: Flint, 2015. - 172 c.
2. Rosenthal, D.E. Modern Russian language / D.E. Rosenthal, I.B. Golub. - M.: Iris-press, 2017. - 616 c.
3. Vashchenko, E.D. Russian language and language culture: textbook / E.D. Vashchenko. - Rn/D: Phoenix, 2018. - 349 c. // Electronic resource: https://kuzmedcoll.narod.ru/distant/filatova/vacchenko.pdf
4. Panfilova, A.P. Innovative pedagogical technologies: Active learning: Study guide / A.P. Panfilova. - M.: Academy, 2013. - 208 c. // Electronic resource: https://academia-moscow.ru/ftp_share/_books/fragments/fragment_16956.pdf
5. Russian language and culture. Textbook and practice for the academic bachelor's degree / under the editorship. Golubeva A. V., Maksimov V. I. - M.: Go ahead. 2019. 306 p. // Electronic resource: https://urait.ru/viewer/russkiy-yazyk-i-kultura-rechi-534418#page/1

METHODS FOR DIAGNOSIS AND PREVENTION OF AGGRESSIVENESS IN SCHOOLCHILDREN

[1]Zhientaeva B.Zh., [2]Aidapkelova G.A., [3]Tulemanova R.E.

[1]University of Turan-Astana, Astana
[2]School-gymnasium No. 49 named after I. Altynsarin, Taraz
[3]South Kazakhstan University named after. M. Auezova, Shymkent

Abstract: The article will tell about the methods of diagnosis and Prevention of aggressiveness of students.

Key words: *methods of diagnosis and Prevention, aggressiveness of students.*

Currently, the problem of aggression is very relevant, since we often encounter it at work, in public transport, on the street, etc. The word “aggression” comes from the Latin word “aggredi”, which means attack or pickiness. The meaning of this word in European languages was different. Until the beginning of the 19th century, aggressive behavior included positive and negative actions. Later, the meaning of the word aggression changed somewhat; to be more specific, aggression is behavior directed against people and correct actions. The problem of aggressive behavior in adolescents has been little studied, because researchers limited themselves to considering individual factors in the study of this problem. In most cases, aggression was also viewed as a bad trait in a person or as a constructive characteristic. However, the answers to them are very contradictory. Currently, demonstrative and aggressive behavior is intensifying, reaching a crisis form, and various symptoms are also appearing.

Now let’s dwell on the question of what causes aggressive behavior in adolescents and what is its reason. G. P. Bochkareva, as a result of studying aggressiveness in children and the causes of drug predisposition, notes emotional and psychological attitudes in the family as its main and most important reason and identifies several types of relationships in it:

1. An emotionally negative atmosphere, in which parents treat children not as individuals, answer questions aggressively and raise them very strictly. Negative emotions are common. Such an atmosphere becomes a prerequisite for the development of aggressive behavior and drug predisposition in adolescents.

2. Lack of emotional relationships in the family, inattention to the child’s achievements and needs, lack of emotional kindness. In this case, the child wants to find an emotionally significant relationship.

3. Moral feelings are not formed and cultivated. This type of family in most cases is found in families where there is alcohol abuse and drug addiction, as a result of which the child does not develop moral values and feelings. This condition negatively affects the development of the child. His social interests and needs are formed incorrectly, that is, adolescents are not provided with spiritual food.

It is through the concept of aggression that one can understand the desire to prove the correctness of one's actions through the manifestation of activity as a force that makes it possible to resist external forces (F. Allan).

Aggression is also understood as a manifestation of hostile reactions, attacks, forces on another person, object, society in the form of causing harm (H. Dalgado). In addition, aggression is distinguished as a specific form of personality and aggressiveness depending on the psychological qualities of the individual. For example, Bass explains aggression as a reaction to the manifestation of physical actions on the part of one person [1].

General aggression is an integral dynamic nature of human activity and adaptation; even in social terms, the individual acquires a certain aggressiveness. During this period of adolescence, isolation, conformity, and passivity appear. All this led to the fact that in a closed institution, an orphanage, the number of teenagers who committed crimes in [2. With. 55].

Rules for working with aggressive students:

- be attentive to the requests and needs of the teenager;
- demonstration of a model of non-aggressive behavior;
- be consistent in punishing the teenager, punish only for specific actions;
- punishment should not infringe on the dignity of a teenager;
- teach techniques for suppressing anger;
- give the teenager the opportunity to express his anger after a certain causal situation;
- learn to recognize the emotional state of others and your personality;
- development of the ability to empathize;
- expanding the scope of student behavior;
- practicing skills of behavior in conflict situations;
- learning to take responsibility for oneself.

However, not all of the above methods produce positive changes if they exhibit different behaviors. Inconsistent parental behavior causes deterioration in the child's behavior. Meeting the demands and needs of the student, patience and attention to him, teaching the skills of constant communication with others - all this helps parents improve communication with teenagers.

We can determine the aggressive behavior of schoolchildren using the following methods:

- Bassa-Darki questionnaire;
- "Cactus" technique;
- methodology for studying the level of anxiety according to Spielberger;
- tests to identify aggressive behavior;
- method "Animal not found in nature";
- "Man in the Rain" technique, etc.

When working with aggressive teenagers, the use of the following training is very important.

Training "Learning to understand or cope with conflicts"

Purpose of the training: definition of the concepts of “conflict”, “aggression” and “failure”. Observing the emotional state of a teenager during a quarrel. Conducting consultations on training in effective conflict resolution.

Participants: schoolchildren.

Visual aids used: presentations, handouts, slow melody.

Training plan:

1. Introduction
2. Deliberation
3. Exercises - I’m angry, tormented, tormented
4. Exercise - when I like it...
5. Solving situations
6. My inner world
7. Conclusion

Move

Organizational stage:

Conducting a welcoming ceremony

Task 1: Thinking

Task 2: I don’t like it if....

Below are sentences that you need to complete yourself:

- I don’t like to warn if...
- I cry, if anything...
- If they scolded me...
- I'll make an effort if...
- I won't talk if...

Participants write their opinions on the board.

Task 3: Solving situations

You're walking down the hallway, two of your classmates are standing by the window, and when you approach, they stop talking and start giggling to each other.

Question: does this situation cause a scandal? Why?

Solution: conflict is all scandals, not quarrels.

Each group is given a task. With an interval of 5-8 minutes you need to make a similar situation to it.

Questions: What are the similarities in each situation?

Task 4 “Peacemaker”

Conflict resolution and relationship communication

Ways to resolve the conflict

Understanding Concession, humility, joke

Understanding between teenagers

Cooperation Friendship, partnership

Task 5: My inner world

This man, there is no other in this world. He also wants to be happy. He is also scared sometimes. He makes mistakes too, he suffers for you. What does it take to achieve happiness at this moment? You are not alone now, your friends are near you, on good terms with you. Wish the person next to you goodness and love. Wish yourself the same. Don't get up until you feel this feeling. If you embrace this feeling, you may open your eyes.

Say thank you for this moment.

Say thank you for the clear sky and silence!

Training “Words that negatively affect a person” (15-20 minutes)

The purpose of the training: to teach a teenager to behave with restraint in negative situations.

Procedure: How would you respond to the following sentences?

- This hairstyle doesn't suit you...
- Your face looks like the face of a fool...
- How skinny you are...
-You dress tastelessly...
-You have a high opinion of yourself...
- You are sleepy, lazy...

Discussion:

1. Describe your feelings after these words.
2. What reaction did you have to him?

Discusses how students felt about this. What were their emotions at this time?

Training “Find out my feelings” (15 minutes)

The goal of the training: relying on intuition, to be able to understand the emotions of other teenagers.

Procedure: group members are provided with handout cards that describe various emotions. These are fear, aggression, love, nervousness, grumbling, indifference, joy, delight, boasting, surprise, falling in love, etc. Group members non-verbally demonstrate feelings and emotions written on handout cards. They must be determined by the rest of the team. You can also show different versions of the same emotion.

Discussion: Which was easier? Define or show? Is it easy to show positive feelings, is it easy to show negative ones?

Training “Feelings are different” (10-15 minutes)

Purpose of the training: working with feelings

Equipment: colored felt-tip pen, paper

Procedure: Each of you depict different feelings in different colors five times. It can contain different feelings: positive, negative, etc.

Discussion: Why do you depict these feelings with this particular color?

Corrective work with aggressive teenagers can be purposefully carried out in the following areas:

1. Direct the aggressive anger of schoolchildren to manifest it in a favorable form.
2. Teaching schoolchildren methods of restraining themselves in various situations.
3. Improving communication with students in possible conflict situations.
4. Creating conditions for the formation of good qualities in schoolchildren, such as goodwill, morality, calmness, trust in people, etc.

Thus, since aggression in schoolchildren is closely related to emotional anger, teaching them to control their anger in an acceptable manner is a major problem faced by both parents and teachers.

References

1. Bandwra A., Wolters R. Podrostkovaya agressïya. - M., 1999.
2. Bağıbaeva M. Jetkinşekterde agressïyanıñ twındaw sebepteri. //Jantanw mäseleleri. №2. 2010.
3. Jetibaeva A. Agressïvti balalarmen jürgiziletin tüzetw jumıstarı. //Mekteptegi psïxologïya. №7. 2011.

SPEAKING SURNAMES IN THE WORKS OF RUSSIAN WRITERS OF THE XVIII-XIX CENTURIES

Kopylova E.R., Mykhanova J.B.

Taraz Regional University named after M.H. Dulati, Taraz city,
ekaterinakprm@gmail.ru, janar-7171@mail.ru

Abstract: The article examines the meaning of speaking surnames in Russian literature, analyzes examples from various works to show how authors use the names of characters to convey certain characteristics and ideas. At the end of the article, the results of a survey are presented, the purpose of which was to identify the level of comprehension of speaking surnames by readers.

Keywords: *telling names, artistic image, author's assessment, artistic technique, analogy, association, classicism, representative character of the image.*

Goal: To identify the significance of speaking surnames in the creation of memorable literary images and their influence on the reader's perception.

Novelty: Despite the fact that the topic of speaking surnames has been repeatedly studied previously, the novelty of this study lies in the fact that it represents a comprehensive analysis of speaking surnames in the works of several Russian writers of different eras. Also, this study can help expand knowledge about literary technique and its impact on the creation of images in literature.

Relevance: The relevance of the topic of speaking surnames in Russian literature is due to their significance for the creation and transmission of ideas in the works of Russian classics. Their use plays a big role in the reader's perception and understanding of the work, which makes this topic a relevant and interesting area of research.

Hypothesis: The use of speaking surnames in works of literature allows authors to create more memorable and effective images of characters, convey ideas and characteristics using surnames, which affects the reader's perception of the work and enhances the emotional and intellectual effect of reading.

An artistic image always carries a generalization. Artistic generalization in creative practice takes different forms, colored by the author's emotions and assessments. For example, an image can have a representative character, when some features of a real object stand out and are "sharpened".

The proper names of literary heroes often become common nouns, which serves as a clear indicator of the general meaning of the artistic image. "In true talent, each face is a type, and each type, for the reader, is a familiar stranger," wrote V.G. Belinsky [1]. Speaking surnames are a way to introduce this stranger to the reader even before reading the work, form an impression about him and draw certain conclusions.

Thus, a telling surname is an artistic device in which a character's first or last name conveys a key character trait of the character. This technique is characteristic of the dramaturgy of classicism.

Speaking surnames in Russian literature are surnames that, by their sound or meaning, convey the characteristics or characteristics of characters. They play an important role in creating images and help the reader more easily recognize and remember the heroes of works.

In addition to characterizing the characters, giving the reader a direct analogy between surname and character, the purpose of speaking surnames is also the following:

• Strengthening the emotional component: a speaking surname can evoke certain associations in the reader, which helps convey the emotional mood of a character or event.

Creating Symbolic Meaning: A telling surname can have a symbolic meaning that reflects the theme or idea of the piece.

Speaking surnames in Russian literature help create more vivid and memorable images of characters, as well as convey certain emotional and symbolic meanings. They are one of the writer's tools to deepen the perception of the work and convey certain ideas or moods.

The origin of speaking surnames in literature can be different. Some authors come up with these surnames on their own, creating new words or combining existing ones. They select the sound or meaning of the surname in such a way that it conveys certain characteristics or characteristics of the characters.

Other authors may use real surnames that already have a meaningful meaning or sound. By choosing surnames that are associated with certain qualities, they enhance the image of the hero.

Sometimes speaking surnames have a symbolic meaning associated with the theme or idea of the work. In this case, the names of the characters reflect the main concepts of the work or are related to its symbolism.

The origin of speaking surnames in literature depends on the author's creative approach and his goals when creating images and conveying certain meanings through character names.

The technique of "speaking surnames" is found in many works of Russian classicists. Let's analyze some of them.

F. M. Dostoevsky "Crime and Punishment"

1.1. Rodion Romanovich Raskolnikov. The surname Raskolnikov comes from the word "schism," referring to schismatics - people who rejected the usual order. Raskolnikov rejected moral laws, creating his own theory, which was contrary to the foundations of human existence. His crime separated him from all social groups and strata, and his subsequent repentance split his soul, creating a conflict between mind and soul, theory and life. This surname carries a symbolic meaning, reflecting one of the main conflicts of the work.

1.2. Andrey Semyonovich Lebezyatnikov. The surname comes from the word "fawn" - to curry favor. "The fact is that, by instinct, he began to understand that Lebezyatnikov is not only a vulgar and stupid little man, but, perhaps, a liar, and that he has no significant connections at all, even in his circle, but has only heard

something something from a third voice...” [2]. In this case, the surname performs a characterizing function.

1.3. Dmitry Prokofievich Razumikhin. In the surname one can trace a clear analogy with the word “mind”. “He was very poor and decidedly, alone, supported himself, earning money by doing some work. He knew an abyss of sources from which he could draw, of course by earning money.” This very reason and rationality can be traced in his behavior; he independently finds a way to provide and support himself, and is also a loyal friend for Raskolnikov, and subsequently for his family. Function - characteristic of a character.

2. I.A.Goncharov “Oblomov”

2.1. Ilya Ilyich Oblomov. The surname Oblomov indicates that something has broken off in the hero’s soul and now he is no longer an integral person, but a person without aspirations and goals. The identity of the name with his father’s emphasizes his passive attitude towards life, the desire to maintain the regularity of life that was in his childhood in the village of Oblomovka. The surname has a symbolic and emotional function, as it helps to create associations in the reader with the emotional state of the hero.

2.2. Andrey Stolts. From German Stolz (“Stolz”) is translated as proud. The author focuses on this quality of his, since self-esteem was instilled in Andrei from childhood, and his German roots made him a responsible and active person [3]. The surname characterizes Stolz, highlighting his main quality.

3. A. S. Griboyedov “Woe from Wit”

3.1. Repetilov. From the French “repeter” - to repeat. Repetilov only repeats the thoughts of the people with whom he communicates, or communicated before, without having any of his own.

3.2. Molchalin. The hero's surname indicates the hero's silence and helpfulness, his silence about his true intentions.

3.3. Skalozub - “to show your teeth.” He personifies a typical metropolitan military man: arrogant, narcissistic, inflated with a sense of self-importance.

In these examples, surnames play not only a descriptive role, but also a symbolic one, reflecting the vices of Famus society.

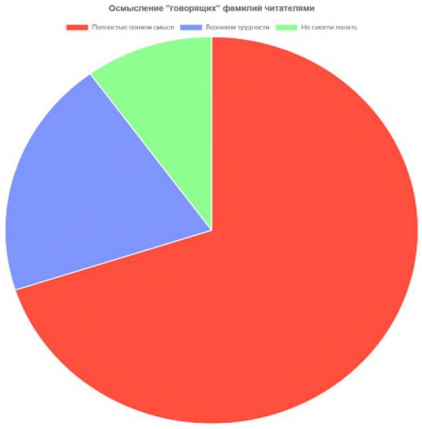
4. N.V. Gogol “Dead Souls”

4.1. Manilov. The surname comes from the words “to beckon”, “alluring”. That is, Manilov is a sentimental, fruitless dreamer, whose dreams are completely divorced from reality. “How nice it would be if suddenly an underground passage was built from the house or a stone bridge was built across the pond” [5]. The function is descriptive.

4.2. Box. When you hear the word “box,” an analogy immediately arises with something practical, related to the household. Indeed, the landowner is engaged in farming, selling honey and her other goods, but the surname also indicates the primitiveness and conservatism of her character, excessive frugality. The function is symbolic; the analogy between the surname and the meaning is not as obvious as in previous examples.

4.3. Sobakevich. The surname evokes associations with the animal world and symbolizes the animal nature of the hero (the sin of gluttony). The author himself compares Sobakevich to a bear and notes the bulkiness and clumsiness of all the interior items in his home - the same qualities that the owner himself possesses. The surname has an emotional function and evokes a direct association in the reader.

As a study, a survey was conducted among students in the age range from 16 to 20 years. The purpose of the survey was to identify the reader's level of understanding and understanding of the meaning of the speaking surnames, how accurately they give an understanding of the character and personality of the character. The respondents were provided with a questionnaire (Appendix 1) with free answer options, each wrote their understanding of the presented surnames in the form of a short text. Of the 20 respondents, 14 had a correct idea of the character's personality by analyzing only one of his surnames, 4 had slight difficulties in understanding them, and only 10 percent of respondents were unable to determine the meaning intended by the author in the characters' surnames.



Thus, we can say that "speaking" surnames play a big role in literary works and literature in general, helping authors create easily remembered, recognizable and vivid images. The classics, with the help of "speaking" surnames, expressed their subjective opinion about the character, helping the reader to form his own even before reading the work. The use of "speaking" surnames is a way to reveal the hero without talking about him, to create a strong and memorable literary image.

References

1. Chernets L.V. "Vvedeniye v literaturovedeniye" (2004 g.)
2. F. M. Dostoyevskiy "Prestupleniye i nakazaniye"
3. I. A. Goncharov "Oblomov"
4. A. S. Griboyedov "Gore ot uma"
5. N. V. Gogol' "Mortvyye dushi"

DISCUSSION AS ONE OF THE METHODS OF INTERACTIVE TEACHING STUDENTS IN RUSSIAN LANGUAGE CLASSES AT UNIVERSITY

Minaidarova M.E., Mykhanova Zh.B.

Taraz Regional University named after M.H. Dulati, Taraz

Abstract: The article substantiates the feasibility of using discussion when teaching Russian to Kazakh students. The authors give examples of practical classes to reveal the search, discussion skills and creative potential of students.

Key words: *discussion, topics, text, strategies, students, interactive methods, skills, speech culture*

Modern conditions of social renewal of society require the development of creative initiative in students, the ability to debate, defend their point of view, and find convincing arguments. The organization of discussion in the educational process plays a significant role in this. The term “discussion” comes from the Latin discussio – consideration, study. Discussion is a dynamic dialogue form, a method and process of interaction when discussing any problems or controversial issues.

Discussion acts not only as a means of developing students’ thinking, acquiring new knowledge, developing skills and abilities, it is also a means of nurturing such valuable personality qualities as persistence in achieving a goal, the ability to correctly navigate in an unfamiliar environment [1, 43].

There are various forms of discussion: “round table”, “brainstorming”, panel discussion, debate, organization of collective interaction like an “aquarium”, symposium, forum, etc., while the basis of the educational discussion is always a discussion of an issue or problem, on the essence of which there is more than one point of view. The structural elements of discussion are student speeches on a topic or in response to statements made by others [2, 17].

Discussion acts both as a method of intellectual activity of the individual, and as a form of knowledge acquisition, and as a means of increasing the effectiveness of learning. It provides information, expands knowledge, and develops the ability to think logically. Discussion is a joint cognitive activity that arises in the presence of an objective subject-logical conflict, which is characterized by a discrepancy in the points of view of the participants on the subject of discussion.

For a successful discussion, the action of the components of communication is required: adequate perception of each other by partners, organization of interaction between them, construction of pragmatically oriented statements. The desired effect of communication is achieved through the intellectual and emotional influence of partners on each other, i.e. through persuasion and suggestion. The following stages can be distinguished: I. Preparation for the discussion. Determining the topic of discussion, the goal pursued by its participants; election of a leader, distribution of roles (secretary of the counting commission, experts, etc.). 2. Adoption of the agenda, regulations, determination of the sequence of

issues to be discussed. 3. Choosing a discussion topic is one of the most important tasks facing a study group preparing a discussion. But before we have discussions, we must know and understand the rules of discussion. All participants in the discussion should openly express their thoughts, respect all points of view, not interrupt each other, not talk too long or too often, and not criticize themselves and other participants, and all disagreements and conflicts regarding ideas should not be directed at a specific person [3, 20].

We connect the topics of discussion with current problems of our time, for example, when studying the topics: “The Ideal City”, “Problems of the Modern Family (problems of fathers and children, the roles of women and men)”, “Lifestyle (peculiarities of work, leisure, communication, range of interests)”, “Lifestyle (clothing, design and functionality of the home)”, “Free time, recreation, interests, hobbies (art, sports, travel)”, “Main problems of the city: cost of living, housing problems, transport”, “Health problems in the country ", "The problem of urbanization of the population", etc. and etc.

The organization of collective work during a lesson in the discipline “Russian Language” using discussion showed that students, when debating, no longer turn to the teacher, but to the one with whose opinion they do not agree, to the audience as a whole. This specifically points to teamwork and is important for the development of independence; in addition, it teaches students to work in a team. The main conditions for successfully mastering discussion skills are compliance with the rules of discussion, the teacher’s ability to lead a discussion, as well as students’ awareness of the need to be able to prove their point of view and the ability to creatively approach problem solving

It is impossible to talk about the complete development of discussion skills in students, but the fact that the use of discussions in Russian language classes increases cognitive activity and cognitive independence is beyond doubt. The study of grammatical and lexical material in a discussion form, the use of setting search tasks of varying degrees of difficulty helps not only to better assimilate the material of a given topic, but also to transfer the mastered methods of activity to new educational material, allows you to draw conclusions more independently, look at linguistic phenomena differently, appears the need for independent understanding of the studied language phenomena [4, 37].

Educational discussion organizes the productive activity of students, ensures the constant development of discussion, that is, the need to express their point of view, implement such techniques and methods of work that help the development of creative independence.

It should be noted that there are various forms of organizing discussion. And one of these forms is the “Decision Tree” strategy. This technique can be used when analyzing situations and should help to achieve a complete understanding of the reasons that led to the adoption of this or that important decision. Students participating in the discussion understand the mechanism for making complex

decisions, and the teacher notices the advantages and disadvantages of each of them.

The teacher himself must vary the forms of discussions. For example, from a simple discussion of a problem that interests students - to a serious press conference on environmental, educational and other issues, from role-playing and group games - to the defense of project assignments, i.e. so that the lesson contributes to the search and cognitive activity of students. We conduct a discussion only if we have a certain lexical and grammatical background. That's why we include a large amount of lexical material in the development of each lesson topic, because It is vocabulary that responds flexibly and quickly to all changes in social, cultural and public life, since it is a measure, an indicator of the general level of development of students, their horizons. The richer the vocabulary of students, the wider their opportunity for self-realization, revealing their creative potential through the Russian language.

When preparing for a discussion, we use various methods, namely a coherent message of educational material, the conversation method, rationally organized independent work with its subsequent activation, clarity, i.e. the use of supporting lexical-semantic, lexical-grammatical notes, creative work of students, heuristic methods, including problem, search, research.

Here are some of the discussion methods we use. For example, when studying the topic "Main problems of the city: cost of living, problems of housing, transport," the teacher sets a task for discussion; students are provided with basic information on the problem being studied, facts, events, etc. (students prepare materials independently in advance). The teacher, who is the leader, divides students into small groups. We distribute tables and bright markers to each group. We determine the time to complete the task (10-15 minutes); discussion participants fill out the table and make decisions on the problem; representatives of each group talk about the results. The teacher compares the results obtained and answers questions from the discussion participants.

And when studying the topic "Lifestyle (clothing, design and functionality of the home)," the lesson can be conducted in the form of a discussion in the style of a talk show. This form of discussion combines the advantages of lecture and group discussion. A group of 3-5 people conducts a discussion on a pre-selected topic in the presence of an audience. Spectators enter the discussion later: they express their opinions or ask questions to the participants in the conversation. Talk shows provide an opportunity to clearly express different points of view on a given topic, but to do this, the main participants in the discussion must be well prepared. The teacher must ensure that student participants do not deviate from the given topic. Talk shows are good for two sessions in a row - 100 minutes.

An effective method of collective discussion is the brainstorming strategy, which allows all participants to freely express their opinions. To conduct brainstorming, we use the following technique. The teacher sets a task for students and talks about its rules. A secretary is appointed who will write down all the ideas

that arise and ensure that the rules are not violated. The first stage lasts until new ideas appear; The presenter announces a short break so that the participants are in a critical mindset. At the second stage, participants group and develop ideas expressed during the first stage, analyze and select those ideas that can help find answers to the questions posed, then participants draw conclusions. We successfully use this form of discussion when studying the topic "The problem of urbanization of the population."

But none of the participants has the right at this stage to express their thoughts about the ideas of others or evaluate them. In just a few minutes you can get a large number of ideas that will serve as the basis for developing the most reasonable solution. We consider brainstorming to be effective, since the ideas expressed will serve as the basis for solving the problem.

In addition, when teaching the Russian language, we also use debates as a means of formalizing discussion. We allow the use of so-called "modified" debates in the classroom. In such debates, the rules can be changed, the number of players in teams can be increased, questions from the audience can be allowed, etc. For example, express debates are debates that can be conducted on the basis of textbook material, i.e. lexical text.

As an example, let us give a discussion of the topic "Problems of the modern family (problems of fathers and children, the roles of women and men)." At the beginning of the lesson, a video on a lexical topic is shown. After watching, students can ask questions: Why did I show you this video? What do you think the topic of our lesson today will be? What do you think we will do in class today? Next, students are divided into small groups. Each group chooses a chairman, secretary, speaker, and observer. Then each group explains the problems of the modern family. After this, the groups begin to defend their point of view, while not forgetting about the rules of discussion.

I would like to note that discussions teach students to adequately use language clichés in their speeches. In addition, they form their oral speech and understanding of the structure of speech: greeting listeners, introducing the team, introduction, justification of the relevance of the topic, argumentation, conclusion and expression of gratitude for attention.

After logic and organization of discussion, speech culture has an important place. After all, not many people know how to observe basic speech culture during an argument. This, first of all, concerns the use of harmless, diplomatic formulations, the ability to express one's opinion succinctly, and not allow two-valued interpretation of one's statements and positions.

Thus, the importance of teaching students search and discussion skills in Russian language classes is due to the current tasks facing a modern university, which consist, first of all, in raising an active personality, capable of independent thinking and making creative decisions. The implementation of these tasks is facilitated by discussion in Russian language classes as one of the methods of interactive teaching for students.

References

1. Baymatova, M.S. Uchebnaya diskussiya kak sredstvo formirovaniya kul'tury dialogicheskogo vzaimodeystviya mladshikh shkol'nikov: programma elektiv. kursa dlya stud. spets. «Pedagogika i metodika nach. obrazovaniya» / M.S. Baymatova. – Volgograd: VGIPK RO, 2004. – 24 s.
2. Guzeyev V.V. Metody i organizatsionnyye formy obucheniya [Tekst] / V.V. Guzeyev. – M.: Narodnoye obrazovaniye, 2001. – 348 s.
3. Igry - obucheniye, trening, dosug.../ Pod red. V.V. Petrusinskogo. M.: Novaya shkola, 1994.
4. Korneyeva Ye.N. Ispol'zovaniye aktivnykh metodov v uchebnom protsesse. Yaroslavl', YAGPI, 1993.
5. Oganesyan N.T. Metody aktivnogo sotsial'no-psikhologicheskogo obucheniya: treningi, diskussii, igry. M.: "Os'-89", 2001.
6. Selikhov S. Tekhnologiya sotsial'no-psikhologicheskikh treningov. M.: MPU, 2001

TEXT AS A MEANS OF DEVELOPING COMMUNICATIVE COMPETENCE AMONG KAZAKH STUDENTS

Ordabek N.N., Minaidarova M.E.

Taraz Regional University named after M.H. Dulati, Taraz,
ordabekn@mail.ru, mariya- estaevna@mail.ru

Abstract: The article discusses the application of a text-centered approach to foster communicative competence among Kazakh students in Russian language instruction. The authors generalize experiences from the fields of psycholinguistics and pedagogy, analyze existing methods of information processing, and incorporate modern technologies in organizing Russian language classes with a focus on text. This approach aims to enhance the communicative skills of Kazakh students.

Keywords: text, competence, communicative competence, speech activity, text analysis.

Improving the quality of education is one of the pressing problems for the entire world community. The solution to this problem is associated with modernizing the content of education, optimizing methods and technologies for organizing the educational process and, of course, rethinking the purpose and result of education. The purpose of education began to be correlated with the formation of key competencies. One of the key competencies is communication competence. We share the opinion of the famous linguist and psychologist A. A. Leontiev “for full communication, a person must have a number of skills: quickly and correctly navigate the communication conditions, be able to plan his speech, choose the right content, find adequate means of expressing thoughts and provide feedback” [3,13].

After all, the modern model of life sets new goals for students: fluency in language, the ability to communicate with different people in different situations, while experiencing a sense of comfort and self-confidence. For this reason, the development of speech and communication skills plays a fundamental role in education. The ability to express ideas clearly and coherently orally or in writing, analyze information, and participate in dialogues and discussions is a key element of communicative competence. These skills help students interact successfully in society. During my educational practice, I noticed that speech development skills were poorly developed in Kazakh classes. Students were not always able to freely argue their presentations, draw generalized conclusions, or simply communicate freely with each other. Often they tried to replace living, cultural speech with standard everyday facial expressions and gestures, i.e. primitive non-verbal methods of communication. The children found it difficult to create independent, coherent, generalized oral and written statements. They made a large number of speech, spelling and punctuation errors. Writing develops the ability to create detailed statements, write essays and presentations. When reading, the result of implementation is the translation of the code of written speech in order to understand the content of the text. Text is the basic concept of the text-centric approach and a system-forming principle in teaching the Russian language.

Text is the basic unit of communication and information transfer. Working with text helps develop a number of important skills:

1. Reading and Comprehension of Text: Reading a variety of texts, ranging from literary works to scientific articles, trains the skill of analyzing and understanding text. This is important both for learning new knowledge and for developing critical thinking skills.

2. Written Expression: Working with text helps students improve their written expression skills. They learn to structure their thoughts, create logical and coherent texts, and also use language correctly.

3. Oral Communication: Reading texts and discussing them in class helps develop oral communication skills. Students learn to express their thoughts, argue their views, and listen to the opinions of others" [1,7].

The text forms the basis of didactic material, with the help of which students are presented with relevant knowledge and basic communication skills are formed; in order to teach schoolchildren to create texts that ensure effective communication, you need to show them examples of such texts, study their structure, linguistic features, communicative capabilities, etc.

There are many methods that can be used to develop communicative competence in Kazakh classrooms:

1. Text Analysis: Students can analyze texts into their component parts, identify key ideas, and determine the structure and features of texts in both languages.

2. Discussions and discussions: Organizing discussions after reading texts in different languages helps students to express their opinions and give reasons for them.

3. Writing: Essay and article writing assignments based on texts in both languages help develop skills in written expression and analysis.

4. Use of modern technologies: Using online resources and tools, students can study texts more deeply and discuss them in both languages. Starting with the definition of a concept and an explanation of its essence, the teacher proceeds to analyze the text, with the help of which he demonstrates the studied facts. Then students independently find the analyzed phenomena in the text, justifying their choice. At the same time, it is important not only to state the presence of the sought concept, but also to determine the reasons for its use and its role in the implementation of communicative intention. All work takes place under the supervision of the teacher. The goal is to illustrate the information being studied with the help of a text in which the essence of what is being studied is manifested not only most clearly, but also in combination with other text categories.

Thus, even illustration in this case will require addressing the text as a single whole, all components of which take a certain part in revealing the intention of its author.

Examples of such use in work on the development of coherent speech can be easily found in textbooks of the Russian language and literature, in various

manuals for students and teachers. The formation of textual activity of 5th grade students in Russian language and literature lessons involves familiarizing them with some knowledge about the text and developing communicative and speech skills on this basis.

What is text? Why is it necessary to learn to understand it and work with it at school? What problems in the field of Russian language proficiency can be solved using text analysis? Of course, mastering spelling and punctuation literacy is one of the first tasks. In modern life, speech literacy is no less important - the ability to coherently and adequately express one's thoughts, to construct communicatively - appropriate statements in oral or written form, using the necessary linguistic means in accordance with the purpose, content of speech and conditions of communication. This means that it is necessary to develop a sense of language, develop the analytical and creative abilities of students, both at the level of content and at the level of linguistic means, which are very closely interrelated. When solving these problems, you should turn to the text and work comprehensively with it. Text is an integrative unit. To comprehend a text, a student sometimes needs knowledge from the field of literary theory, the history of language, and ethnography [2, 27]. By studying the text, students involuntarily enrich their cultural background, form ideas about different aspects of life, different eras, and improve their moral sense.

They learn to compare, think logically, defend their own opinions, admit and correct their mistakes. Finally, they master a wealth of accurate and expressive spoken and written language. Text analysis is useful in preparing for essays and presentations, and is also effective as a form of examination. It is advisable to introduce the concept of "text" in the 5th grade, for example: task 24. Read the example given in the right column. Prove that it is a text, determine its topic and formulate the main idea. What keywords helped you? Number the sentences. Is it possible to swap them?

In the process of collective analysis, students, under the guidance of the teacher, conclude that each sentence expresses a separate thought, and in the text all sentences develop the same thought, which ensures their semantic connection. Students begin to familiarize themselves with the concepts of "topic" and "main idea", and on this basis they develop the ability to reveal the theme of the text and implement the main idea. These skills are basic for mastering the production of oral and written texts, and therefore their formation continues throughout all years of study.

The following sequence of formation of these skills in students is assumed:

- determine the topic and main idea (if it is clearly formulated in the text) based on the analysis of the text - sample;
- title the finished text or choose a title appropriate to the text that expresses the topic or main idea;
- select vocabulary corresponding to the title of the text (thematic dictionary);

- edit the test based on the exclusion of sentences that do not correspond to the topic;
- determine the main idea of the text (in the case when it is not directly formulated);
- reveal the topic of the text based on this beginning;
- determine the topic using key words, compose a story based on them;
- determine the main idea by finding evaluative vocabulary in the text;
- reveal the topic of the text in accordance with the title by selecting the necessary factual and linguistic material [5, p.43].

The general concept of text types (description, narration and reasoning) is included in the 5th grade textbook “Russian Language and Literature”, as well as tasks like: Task 115. Imagine that you need to convey the content of the fairy tale “The Owl” using drawings. Give a verbal description of each picture. In the process of comparative analysis of text types, students are led to the conclusion that, depending on the subject of speech of a particular text, a question can be asked about it (for example, the question for descriptive texts is “What subject?”, for narrative texts – “What happened? "to texts - reasoning - “Why is this so?”), in addition, it is recommended to use the technique of drawing pictures. It lies in the fact that only one picture can be drawn for descriptive texts, several for narrative texts, but it is impossible to draw pictures for reasoning texts [5, p.56].

A more detailed study of each functional and semantic type of text occurs in subsequent years of study. We will be interested primarily in the characteristics of written text, as well as in how students generally read, that is, perceive written texts, and write, that is, create written texts.

What is needed to turn Russian language lessons from unproductive and uninteresting into exciting and effective? When the content is significantly enriched by working with linguistic categories and vocabulary words as concepts, schoolchildren, in joint search activity with the teacher, see the way to define each concept with which they become acquainted. The process is not easy, but it teaches children to think about every word, phrase, sentence, promotes the development of accurate, demonstrative, correct speech, improves students’ logical thinking, helps them to gain a deeper knowledge and more firmly remember the material being studied. The list of questions itself is also text. Even if you do not read the questions for the work in full, but answer them immediately after reading each subsequent one, communication occurs about the text. We read and try to comprehend all the linguistic units that make up the text. For example, task: Read the text “Monuments to Animals.”

Post-text tasks: 1. Think and explain why the text is called that? 2. How would you title the text? Write down your title for the Best Text Title competition. 3. Define the text style. 4. Explain the meaning of the phrase “bare place” [5, p.57].

Practice shows that Russian language lessons are among the favorite ones; students very often lack communicative motivation, which prevents them from learning the language as a means of communication.

Observations show that students have poorly formed speech development skills. Students are not always able to freely give reasons for their speeches, draw generalized conclusions, or simply communicate freely and freely with each other. Often they try to replace lively, cultural speech with standard everyday facial expressions and gestures, i.e. primitive non-verbal methods of communication. The children find it difficult to create independent, coherent, generalized oral and written statements. The problem of cultural communication among schoolchildren is one of the most important today in the organization of a social learning environment. After all, it is communicative competence that will begin to play a fundamental role, helping in professional training and work activity. In modern society, there is a particularly strong need for comprehensively literate people who are fluent in oral and written communication skills. Professional, business contacts, and interpersonal interactions require a modern person to have a universal ability to generate a wide variety of statements, both oral and written.

Thus, working with texts in Russian language and literature lessons plays an important role in the formation of the communicative competence of students in Kazakh classes. This allows them to develop reading, writing and oral communication skills in both languages, which is becoming a key factor for success in modern society. Working with texts allows students to better adapt their communication skills to a variety of situations and contexts.

References

1. Antonova Ye.S. Metodika prepodavaniya russkogo yazyka: kommunikativno - deyatel'nostnyy podkhod: ucheb. posobiye v 3 ch. - M.: MGOU, 2005, - CH.3, S.7.
2. Vygotskiy L.S. Myshleniye i rech' / L.S. Vygotskiy // Psikhologiya. M.: EKSMO-Press, 2002. – S. 27.
3. Leont'yev A.A. YAzyk i rechevaya deyatel'nost' v obshchey i pedagogicheskoy psikhologii. Izbrannyye pedagogicheskiye trudy, M., 2016.-13.
4. Cherepanova L.V. Innovatsionnyye podkhody v obuchenii russkomu rodnomu yazyku. - Chita: ZabGGPU, 2012. – 145 S.
5. Russkiy yazyk i literatura: Uchebnik dlya 5 kl. obshcheobrazovat. shk. s kazakhskim yazykom obucheniya. V 2 chastyakh. / U.A. Zhanpeys, N.A. Ozekbayeva. - Almaty: «Atamura», 2017.
6. Cherepanova L.V. Formirovaniye lingvisticheskoy kompetentsii pri obuchenii russkomu yazyku / L.V. Cherepanova. – Novosibirsk: Nauka, 2006. – 324 S.

GAME TECHNOLOGIES IN RUSSIAN LANGUAGE AND LITERATURE LESSONS IN SECONDARY SCHOOL

Chaika D., Minaidarova M.E.

Taraz Regional University named after M.H. Dulati, Taraz
dilorom2005@mail.ru, mariya-estaevna@mail.ru

Abstract: The article provides definitions of linguist scientists about “game”, theoretical information, as well as methods for using game technologies in the Russian language and literature lesson.

***Keywords**: language, game, learning, lesson, topic, development, students.*

The problem of increasing students' interest in Russian language lessons is one of the most pressing problems of modern methodology. Mastering this subject has its own characteristics. Language is always at the disposal of students, because we use language constantly. The connection between theory and practice is a characteristic feature of our subject of study. It is necessary to attract the attention of children, first of all, to the world of words that they use every day.

According to L.S. Vygotsky, there is a close connection between the development of children and play activities. The scientist notes that throughout all stages of a child’s development, his play experiences turn out to be connected with personality problems - with the moments of its manifestation and development; the game creates a “zone of proximal development”, and in it the child becomes, as it were, head and shoulders above himself [1, 62].

In the “Small Explanatory Dictionary of the Russian Language” we find the following definition of game: “Game... an activity used for entertainment, recreation, competition, a set of objects for such an activity. A sports competition between two rivals (individual athletes or teams), conducted according to established rules... Actions pursuing a secret goal, intrigue” [4,172].

According to E.I. Udaltsova, “Game is indispensable as a means of developing correct relationships between people. In it, the child shows a sensitive relationship with a friend, learns to be fair, to give in to a friend, to help in trouble, etc. Therefore, the game is an excellent means of educating the team” [5,25].

The “Big Psychological Dictionary” explains the concept of “game” as follows: “Game is one of the types of human and animal activities - Children’s play, a historically emerging type of activity, which consists in children reproducing the actions of adults and the relationships between them, aimed at understanding the surrounding reality” [7].

It can be stated that play is the freest form of manifestation of children’s activity, the need of the psyche, intellect, and biological fund of a growing child. It forms will, independence, directs the teenager’s energy to creativity, which is very important for the normal development of the individual in modern society. It

should be noted that each game as a means of teaching the Russian language is in close interaction with other means of teaching and is used in an integral didactic system.

It must be remembered that in a Russian language lesson the game should primarily be used not as a means of entertainment, but as a means and form of learning. On the one hand, a game is entertainment, a free activity conducted for the sake of interest; hence the game should be entertaining. On the other hand, a game is an activity that provides some new knowledge; hence it should be educational. Consequently, the teacher's task is to minimize the entertaining aspect of the game and make it as educational as possible.

The use of various types and types of games in various combinations in Russian language lessons helps the teacher fight the pattern in his work and diversify the lesson. The pedagogical purpose of games is carried out using their system, compiled in accordance with the role and place of the game in the learning process.

The following groups of games can be distinguished, depending on the nature of the pedagogical process: educational, training, controlling and generalizing; cognitive, educational, developmental; reproductive, productive, creative, diagnostic, communication, career guidance, psychotechnical, etc.

Classification of games according to their role in the process of teaching the Russian language in secondary school is possible only if the main goal of each game is identified. Since the main goal changes depending on the needs of the educational process, the game system itself should be mobile and dynamic. The fact that the same type of game can be used to teach various aspects of language knowledge and to develop different types of skills and abilities leads us to the same conclusion. It is more appropriate to start using games in Russian language and literature lessons when introduction is required new forms of work in order to enhance speech activity and maintain students' interest in learning the Russian language. In this regard, the specificity of educational games in Russian language lessons is as follows: they gradually form and develop skills of coherent speech in listening, reading, speaking and writing. In addition, the basis of game actions is a complex of internal operations for the choice of linguistic means, as well as for making decisions not only of a speech, but also of a behavioral nature, which makes it easier for students to analyze the complex process of analyzing the world around them and consolidating individual phenomena of this world in speech" [3,145] .

The classification of games used in teaching the Russian language is based on the systematic organization of the language. The following types of designated games are distinguished:

1) phonetic games;
2) word-building games;
3) lexical and phraseological games;
4) grammar games;

5) spelling games.

The games and game tasks we used based on this classification were adapted to the conditions of teaching the Russian language in secondary school. Let us give an example of consolidating the material covered using game technologies on the topic: “Pronoun and its categories” in 5th grade [6]. We divide the class into 3 groups, hand out colored pieces of paper on which the types of pronouns are written. Each student must write on a piece of paper in a chain, come up with a phrase or sentence; whoever finishes it the fastest and writes it without mistakes, that team wins.

2. To consolidate the completed topic “Numerals”. We write numbers on a piece of paper. Students must write numbers in words, come up with a sentence and write what type the numeral is. Whoever writes the fastest without errors, that team wins and receives a prize.

3. Topic: “I am a poet.” We divide the class into 3 groups. Each member of the team must recite a poem expressively. Teams discuss how one of the students performed and ask questions.

4. Topic: “Who is this?” The teacher shows drawings for the work. Students must retell any passage from a work, biography, or poem.

5. Topic: “Noun.” The teacher distributes pieces of paper and students must write animate and inanimate, proper and common nouns. Whoever writes faster and more correctly wins a prize.

Thus, based on the results of our own practical experience, we can note the fact that the use of various gaming technologies in Russian language and literature lessons increases the level of cognitive activity and motivation of students, develops thinking, imagination, creativity, develops skills of self-esteem, self-control of their educational activities , promotes the development of a culture of communication, fosters an active personality who knows how to see, pose and solve non-standard problems. An element of competition is introduced into educational activities, which transforms a didactic task into a game one.

References

1.Vygotskiy L.S. Igra i yeye rol' v psikhicheskom razvitii rebenka // Voprosy psikhologii. - 2006. - № 6. S. 62.

2. Dauletova S.S. Didakticheskiye osnovy razvitiya obuchennosti uchashchikhsya v usloviyakh primeneniya pedagogicheskikh tekhnologiy // Obrazovaniye. - 2010. - № 2. - S.71-73.

3. Yerkibayeva G. Modul'naya tekhnologiya na uroke russkogo yazyka // Poisk. Ser. Gumanitarnykh nauk. – 2004. - № 4. - S. 145.

4. Lopatin V.V., Lopatina L.B. Malyy tolkovyy slovar' russkogo yazyka. - M.: EKSMO, 1993. S. 172.

5. Udal'tsova Ye.I. Didakticheskiye igry v vospitanii i obuchenii doshkol'nikov.-M.:2008.S.25.

6. Russkiy yazyk i literatura: Uchebnik dlya 5 kl. obshcheobrazovat. shk. s kazakhskim yazykom obucheniya. V 2 chastyakh. / U.A. Zhanpeys, N.A. Ozekbayeva. - Almaty: Atamura, 2017.

7. Bol'shoy psikhologicheskiy slovar'. Avtory: B. G. Meshcheryakov, V. P. Zinchenko. M.: Praym-Yevroznak, 2007.

--- ENGINEERING ---

--- MECHANICAL ENGINEERING, CHEMICAL ENGINEERING, --- --- CIVIL ENGINEERING, CONSTRUCTION MATERIALS, --- --- TRANSPORT, LIFE SAFETY, ECOLOGY, TEXTILE INDUSTRY, --- ---AGRO-INDUSTRY ---

IMPROVEMENT OF ORGANIZATIONAL AND ECONOMIC RELATIONS BETWEEN GRAPE GROWING AND PROCESSING ENTERPRISES

Shafkarov Bakhrom Khudoyberdievich

National Research University of Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, Tashkent

Abstract: This article focuses on improving organizational and economic relations between grape growing and processing enterprises. It provides insights and strategies for stakeholders in the grape industry to enhance their operations and maximize economic benefits. The article covers various aspects, including export market development, branding and marketing, continuous quality improvement, market diversification, collaboration with research institutions, benchmarking, market collaboration, continuous innovation, consumer education, and economic and policy advocacy. Additionally, it highlights the importance of supply chain optimization, technological adoption, risk management, financial management, certification and standards compliance, consumer engagement, research and development, environmental stewardship, data analysis and insights, and fostering a culture of continuous improvement. By implementing these strategies, grape growers and processing enterprises can strengthen their relationships, increase competitiveness, and drive sustainable growth.

Keywords: *Grape growing, processing enterprises, organizational relations, economic relations, export market development, branding, marketing, quality improvement, market diversification, research institutions, benchmarking, market collaboration, innovation, consumer education, economic advocacy, supply chain optimization, technological adoption, risk management.*

Introduction: Grape growing and processing enterprises play a crucial role in the agricultural and food processing sectors, contributing to the production of a wide range of grape-based products such as wines, juices, dried fruits, and jams. The success of these enterprises depends not only on the quality of their products but also on the strength of their organizational and economic relations.

Organizational and economic relations encompass various aspects, including collaboration, communication, supply chain management, market development, branding, innovation, and financial performance. Strengthening these relations is essential for grape growers and processing enterprises to remain competitive, adapt to market dynamics, and maximize their economic potential.

This article aims to provide insights and strategies for improving the organizational and economic relations between grape growing and processing enterprises. By implementing these strategies, stakeholders in the grape industry can enhance their operations, foster mutually beneficial partnerships, and capitalize on emerging opportunities. The article will explore key areas such as export market development, branding and marketing, continuous quality improvement, market diversification, collaboration with research institutions, benchmarking, market collaboration, continuous innovation, consumer education, and economic and policy advocacy.

Furthermore, the article will emphasize the importance of supply chain optimization, technological adoption, risk management, financial management, certification and standards compliance, consumer engagement, research and development, environmental stewardship, data analysis and insights, and fostering a culture of continuous improvement. These aspects are crucial for creating a sustainable and thriving grape industry that meets evolving consumer demands, ensures product quality and safety, and drives economic growth. By understanding and implementing the strategies and considerations outlined in this article, grape growers and processing enterprises can enhance their organizational and economic relations, build strong partnerships, and create a competitive edge in the grape industry. Ultimately, this will lead to increased profitability, market expansion, and long-term sustainability in a rapidly evolving and highly competitive market landscape.

Literature Analysis: Research on organizational relations within agricultural supply chains has a long history. Early studies examined vertical coordination between farms and processing facilities (Sexton, 2012; Hardesty & Leff, 2010). Subsequent literature analyzed factors that strengthen relationships like contracts, cooperatives and strategic alliances (Ménard & Klein, 2004; Porter & Scully, 1987). More recent works explore innovative partnerships and information sharing stimulated by industry change (Goulding et al., 2018; Okello et al., 2014). To explore the topic of improving organizational and economic relations between grape growing and processing enterprises, a comprehensive literature analysis was conducted. The analysis involved a review of scholarly articles, industry reports, case studies, and relevant publications from reputable sources. The literature analysis aimed to identify key factors, strategies, and best practices that contribute to enhancing organizational and economic relations within the grape industry.

The literature analysis revealed several recurring themes and findings. Firstly, collaboration emerged as a crucial factor in improving relations between grape growers and processing enterprises. Collaborative initiatives such as joint marketing efforts, shared resources, and knowledge exchange were found to strengthen partnerships and improve overall efficiency.

Secondly, supply chain optimization was identified as a critical aspect for enhancing organizational and economic relations. Effective supply chain management, including efficient logistics, inventory management, and timely

communication, was found to streamline operations, reduce costs, and enhance customer satisfaction.

Thirdly, technological adoption was highlighted as a key driver for improving relations within the grape industry. The literature emphasized the importance of precision agriculture technologies, data analytics, and automation in optimizing grape production and processing, improving quality control, and driving innovation.

Furthermore, the literature analysis identified risk management and financial management as essential components for fostering strong organizational and economic relations. Proactive risk mitigation strategies, such as insurance coverage and contingency planning, were found to enhance resilience and protect operations. Additionally, sound financial management practices, including accurate record-keeping, budgeting, and performance monitoring, were identified as crucial for long-term economic success.

Lastly, the literature analysis highlighted the significance of certifications, consumer engagement, research and development, environmental stewardship, and continuous improvement in building strong relations between grape growers and processing enterprises. These aspects contribute to market differentiation, sustainability, and meeting consumer expectations.

Methods: The literature analysis was conducted through a systematic search of academic databases, industry publications, and reputable online sources. Key search terms included "grape growing," "processing enterprises," "organizational relations," "economic relations," and related keywords. The search encompassed literature published within the past decade to ensure the inclusion of recent insights and developments in the grape industry.

The identified literature was carefully reviewed and analyzed to extract relevant information, key findings, and recurring themes related to improving organizational and economic relations in the grape sector. The analysis involved synthesizing the information, identifying gaps, and drawing conclusions based on the collective insights from the literature.

It is important to note that while the literature analysis provides valuable insights, the specific strategies and approaches outlined in this article are recommendations based on the synthesized findings. Stakeholders in the grape industry should consider their unique circumstances, resources, and market conditions when implementing these strategies, and adapt them accordingly to achieve the desired outcomes.

Discussion: The discussion section focuses on the key findings and implications derived from the literature analysis and methods employed in this study. It provides a deeper understanding of the strategies and considerations for improving organizational and economic relations between grape growing and processing enterprises in the grape industry.

Collaboration emerged as a central theme in fostering strong relationships within the grape industry. The literature analysis revealed that collaborative efforts

between grape growers and processing enterprises, such as joint marketing initiatives and knowledge exchange, can lead to improved communication, shared resources, and enhanced efficiency. By working together, stakeholders can leverage their respective strengths, minimize redundancies, and create synergies that benefit both parties.

Supply chain optimization was identified as a critical factor in improving organizational and economic relations. Efficient supply chain management, encompassing logistics, inventory management, and timely communication, can streamline operations, reduce costs, and enhance customer satisfaction. By optimizing the flow of grapes from the vineyard to the processing facility, stakeholders can ensure a reliable supply of high-quality grapes, thus improving the overall value chain.

Technological adoption was highlighted as a key driver for enhancing relations within the grape industry. Precision agriculture technologies, such as remote sensing, drones, and IoT devices, enable grape growers to monitor vine health, optimize irrigation, and detect diseases or pests. Processing enterprises can benefit from advanced machinery, automation, and data analytics to improve productivity, consistency, and quality control. Embracing technology can lead to increased efficiency, cost savings, and improved product outcomes.

Risk management and financial management were identified as crucial components for fostering strong organizational and economic relations. The literature emphasized the need for proactive risk mitigation strategies, such as insurance coverage and contingency planning, to protect operations from weather-related events, disease outbreaks, and market volatility. Sound financial management practices, including accurate record-keeping, budgeting, and performance monitoring, are essential for the long-term economic success of grape growers and processing enterprises.

Certifications, consumer engagement, research and development, environmental stewardship, and continuous improvement were identified as additional considerations for improving relations within the grape industry. Obtaining relevant certifications and adhering to industry standards can enhance credibility and marketability. Engaging with consumers directly through various channels can create brand loyalty and drive demand. Investing in research and development activities fosters innovation and a competitive advantage. Demonstrating environmental stewardship aligns with consumer expectations for sustainable products. Fostering a culture of continuous improvement encourages innovation, collaboration, and adaptability.

It is important to note that the strategies and considerations discussed in this article are not exhaustive, and their implementation should be tailored to the specific circumstances and goals of each grape growing and processing enterprise. Additionally, the dynamic nature of the grape industry requires stakeholders to remain adaptable and responsive to changing market conditions and consumer preferences.

Overall, improving organizational and economic relations between grape growing and processing enterprises requires a holistic approach that encompasses collaboration, supply chain optimization, technological adoption, risk management, financial management, certifications, consumer engagement, research and development, environmental stewardship, and continuous improvement. By implementing these strategies and considering the identified factors, stakeholders can foster strong relationships, enhance competitiveness, and drive sustainable growth in the grape industry.

Results: The results section of the article "Improving organizational and economic relations between grape growing and processing enterprises" presents the key findings derived from the literature analysis and methods employed in this study. These findings provide insights into the strategies and considerations for enhancing organizational and economic relations within the grape industry.

1. Collaboration: The literature analysis highlighted the importance of collaboration between grape growers and processing enterprises. Successful collaborative efforts, such as joint marketing initiatives and knowledge exchange, can lead to improved communication, shared resources, and enhanced efficiency. This collaboration fosters stronger relationships and creates synergies that benefit both parties.

2. Supply Chain Optimization: Efficient supply chain management emerged as a crucial factor in improving organizational and economic relations. Optimizing logistics, inventory management, and timely communication streamlines operations, reduces costs, and enhances customer satisfaction. By ensuring a reliable supply of high-quality grapes, stakeholders can improve the overall value chain.

3. Technological Adoption: The literature emphasized the significance of technological adoption in the grape industry. Precision agriculture technologies enable grape growers to monitor vine health, optimize irrigation, and detect diseases or pests. Processing enterprises can benefit from advanced machinery, automation, and data analytics to improve productivity, consistency, and quality control. Embracing technology leads to increased efficiency, cost savings, and improved product outcomes.

4. Risk Management and Financial Management: Proactive risk mitigation strategies, such as insurance coverage and contingency planning, were identified as crucial for protecting operations from weather events, disease outbreaks, and market volatility. Sound financial management practices, including accurate record-keeping, budgeting, and performance monitoring, contribute to the long-term economic success of grape growers and processing enterprises.

5. Certifications, Consumer Engagement, Research and Development, Environmental Stewardship, and Continuous Improvement: Obtaining relevant certifications, engaging with consumers directly, investing in research and development, demonstrating environmental stewardship, and fostering a culture of continuous improvement were identified as additional considerations for

improving relations within the grape industry. These factors enhance credibility, drive demand, foster innovation, meet sustainability expectations, and encourage adaptability.

It is important to note that the results presented in this section are derived from the literature analysis and may vary based on the specific circumstances and goals of each grape growing and processing enterprise. The identified findings provide a foundation for understanding the strategies and considerations for improving organizational and economic relations in the grape industry, but their applicability should be evaluated in the context of individual operations. By considering these results and implementing the corresponding strategies, stakeholders in the grape industry can strengthen their relationships, increase competitiveness, and drive sustainable growth. The results highlight the importance of collaboration, supply chain optimization, technological adoption, risk management, financial management, certifications, consumer engagement, research and development, environmental stewardship, and continuous improvement in improving relations within the grape industry.

The grape industry relies on strong organizational and economic relations between grape growing and processing enterprises to thrive in a competitive market. This article has explored various strategies and considerations for improving these relations, based on a literature analysis and research methods.

Collaboration emerged as a key factor in fostering strong relationships within the grape industry. Joint marketing initiatives, knowledge exchange, and shared resources can enhance communication and efficiency, leading to mutual benefits for grape growers and processing enterprises.

Supply chain optimization is crucial for improving organizational and economic relations. By streamlining logistics, inventory management, and communication, stakeholders can ensure a reliable supply of high-quality grapes, resulting in improved overall value chain performance.

Technological adoption plays a significant role in enhancing relations within the grape industry. Precision agriculture technologies, advanced machinery, and data analytics enable grape growers and processing enterprises to optimize production, improve quality control, and drive innovation. Embracing technology can lead to increased efficiency, cost savings, and improved product outcomes

Risk management and financial management are essential components of strong organizational and economic relations. Proactive risk mitigation strategies, such as insurance coverage and contingency planning, protect operations from potential disruptions. Sound financial management practices ensure the long-term economic success of grape growers and processing enterprises.

Certifications, consumer engagement, research and development, environmental stewardship, and continuous improvement are additional considerations for improving relations within the grape industry. These factors contribute to market differentiation, sustainability, innovation, and meeting consumer expectations.

Conclusion: In conclusion, improving organizational and economic relations between grape growing and processing enterprises requires a holistic approach. By implementing the strategies and considerations discussed in this article, stakeholders in the grape industry can foster strong relationships, enhance competitiveness, and drive sustainable growth. However, it is important to note that each enterprise should adapt these strategies to their specific circumstances and goals. By continuously striving to strengthen organizational and economic relations, the grape industry can overcome challenges, seize opportunities, and maintain its position as a vital sector in the agricultural and food processing industries. With collaboration, supply chain optimization, technological adoption, risk and financial management, certifications, consumer engagement, research and development, environmental stewardship, and continuous improvement as guiding principles, grape growers and processing enterprises can navigate the dynamic market landscape and achieve long-term success.

References:

1. Anderson, K., Aryal, N. R. (2020). Wine production in China: Past, present, and future. China Economic Review, 60, 101348.
2. Chen, Y., Paulson, N. (2019). A systematic review of collaborative governance: Implications for grape and wine research and extension. Journal of Wine Economics, 14(1), 29-54.
3. De Oliveira, E.R., Marin, T.D. (2018). Supply chain management practices in the context of grape production: An exploratory study in the Brazilian wine industry. International Journal of Production Economics, 196, 1-11.
4. Gómez-Limón, J.A., Gómez-Limón, D., Roibás-Millán, E. (2020). Sustainable development, innovation, and competitiveness in the wine sector: A review. Journal of Cleaner Production, 272, 122682.
5. Hall, C. M., Sharples, L. (Eds.). (2020). Wine Business Case Studies: Thirteen Cases from the Real World of Wine Business Management. Routledge.
6. Kallbekken, S., Farstad, E. (2019). Economic incentives for reducing pesticide runoff in viticulture: Evidence from a choice experiment in Norway. Journal of Wine Economics, 14(4), 381-399.
7. Kuehne, G., Brewer, P. (2019). Innovation in the wine industry: A review of the literature. Journal of Wine Research, 30(1), 1-20.
8. Marin, T.D., De Oliveira, E.R. (2020). Risk management practices in the grape production: An exploratory study in the Brazilian wine industry. International Journal of Production Economics, 226, 107568.
9. Pons, L. E., Giraud-Héraud, E. (2021). The role of cooperatives in the wine industry: A review of the literature. Journal of Wine Economics, 16(1), 3-29.
10. Reinders, M.J., Van Ittersum, M.K. (2020). Precision agriculture and sustainability. Current Opinion in Environmental Sustainability, 44, 120-126.
11. Vrontis, D., Thrassou, A. (2019). Wine marketing and management. Routledge.
12. Zollo, L., Winter, S.G. (2002). Deliberate learning and the evolution of dynamic capabilities. Organization Science, 13(3), 339-351.
13. Optimization of agricultural lands in land equipment projects Khamidov, F.R., Imomov, S.J., Abdisamatov, O.S., Ibragimova, G.Kh., Kurbonova, K.I. Journal of Critical Reviews, 2020, 7(11), pp. 1021–1023

14. Modeling of heat exchange processes in the Metanetka bioenergy plant for individual use Sharipov, L.A., Imomov, S.J., Majitov, J.A., ...Pulatova, F., Abdisamatov, O.S. IOP Conference Series: Earth and Environmental Science, 2020, 614(1), 012035
15. Numerical solution of nonlinear integro-differential equations Shodmonova, G., Islomov, U., Abdisamatov, O., ...Kholiyorov, U., Khamraeva, S. IOP Conference Series: Materials Science and Engineering, 2020, 896(1), 012117
16. Transfer equation for the strain rate tensor and description of an incompressible dispersed mixture (incompressible fluid) by a system of equations of dynamic type Yuldashov, A., Abdisamatov, O., Abdullaev, B., Dustova, S.E3S Web of Conferences, 2021, 264, 03025
17. Restoration and use of degraded irrigated lands in the context of land use diversification Usmanov Yusuf Alikulovich Abdisamatov Otabek Saydamatovich science and innovation international scientific journal volume 1 issue 8 uif-2022: 8.2 | issn: 2181-3337 pp.616-624
18. Cadastral value as a tool for monitoring the market value of real estate. construction of a mathematical model for assessing the market value of real estate O.S.Abdisamatov1 2023 issn: 2181-3833 | volume 2 | issue 1 | pp.495-502
19. Use of modern geodetic technologies to improve land reclamation. assis. O.S.Abdisamatov assis.A.Juraev assis.I.Karimov on the occasion of "International Land Day" on the topic "Innovative approaches to management and protection of land resources: problems and creative solutions" republican scientific-practical Tashkent April 22-23, 2019 316 - page 319.
20. Introduction of innovative technologies in effective use of irrigated land in agriculture. O. Abdisamatov, U. Islamov, F. Yusupov Scientific-practical agro-economic journal 2019. Pages 151-153.

THE ESSENCE OF CREATING HORTICULTURAL ARRAYS BASED ON TERRACING

[1]Ashurov A.F., [2]Abdisamatov O.S., [3]Bazhirov T.S. [4]Ibragimova G.X.

[1]National Research University of Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, Uzbekistan
[2]Tashkent International University of Financial Management and Technologies Uzbekistan,
[3]Auezov South Kazakhstan State University, Kazakhstan
[4]Tashkent State University of Economics, Uzbekistan
abdisamatov_otabek@mail.ru

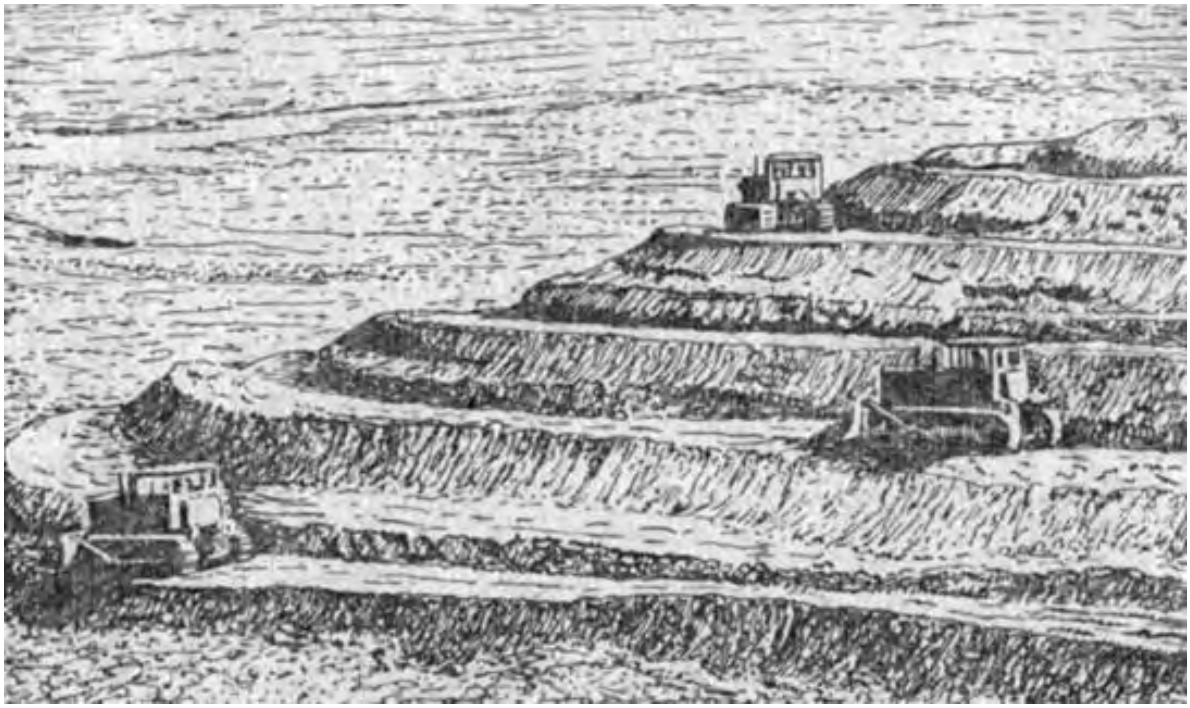
Abstract: The article highlights the issues of the possibility of developing foothill and mountain slopes in Uzbekistan with the construction of terraces, followed by the creation of orchards and vineyards, the advantages of such gardens and vineyards. The need for agro-climatic analysis and the study of the relief of territories for terracing in order to create orchards and vineyards and their water supply is discussed. The anti-erosion role of terraces and their importance in the economy of the Republic is given.

Terracing is carried out during the development of foothill (sloping) lands for perennial fruit plantations. The device of terraces is carried out in the process of periodic plowing of the slopes of the earth and the formation of strips (terraces). The soil layer is moved and form an embankment on part of the strips and accumulated along the outer border of the strip for the pass, subsequently on the canvas of the terrace under construction, starting from the lower part of the slope. Flattening to the horizontal of the subsoil is carried out, exposed as a result of periodic plowing with the movement of the soil layer into the bulk part of the strips, as well as its loosening. Fruit trees are planted on the soil layer. The use of terracing will make it possible to carry out terracing of mountain slopes with the preservation of the soil layer.

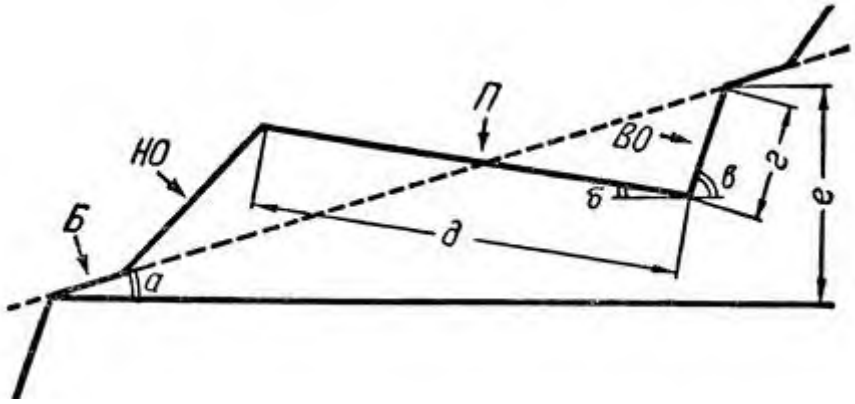
The benefits of terracing are numerous, which speaks to the benefits of this practice for humanity and the environment. In particular, the terrace system in agriculture: Increases the usability and productivity of fields located on slopes. Contributes to the conservation of water resources: slows down and reduces the intensity of water flows, retains rainwater; prevents the formation of streams and water erosion of soils; contributes to the conservation of land resources; minimizes silting and pollution of water bodies; The water stays on the terraces long enough for heavy particles to settle rather than being washed into nearby water bodies. At the same time, the period of flooding is not long enough to harm the crops. Increases food production through the use of hilly and mountainous regions for agricultural purposes.

Increases the biodiversity of ecosystems. Terracing slopes and creating platforms in the form of wide (steps) limited by rollers for growing fruit crops, grapes, etc. The use of terraces has long been common in countries with mountainous terrain (Japan, India, Sri Lanka, South African countries, Turkey,

Greece, Italy, etc.), in the former Soviet Union - in the Caucasus, in Moldova, the republics of Central Asia, etc. Fruit crops will be placed at a height of up to 2-3 thousand meters above sea level, somewhat lower - grapes down the slope - citrus crops. The most common are stepped terraces, arranged on slopes from 100-120 to 400-500; on slopes up to 100, they usually produce contour planting of perennial fruit plantations.



Pic - 1. The process of construction of cut-and-fill terraces



Pic - 2. Parts of the excavation - bulk terraces. П- (cloths) of the terrace, ВО - excavation (internal) slope, НО - bulk (outer) slope and Б - berm - untouched part of the slope between two terraces.

When constructing terraces with vertical slopes, there are no berms, and the excavation slope of the terrace below is the bulk slope of the upper terrace. Terraces can be horizontal or with a slope along the longitudinal or transverse profile.

The purpose of terracing is the efficient use of mountain slopes with the preservation of the soil layer, the expansion of plantation areas of orchards and

vineyards and the growth of agricultural production. This goal is achieved by terracing on slopes, starting from gentle (4o-5o), is carried out by periodically plowing strips (terraces) with a unit with a four-body mounted plow, the multiplicity of which depends on the width of the strips, the thickness of the soil cover and the steepness of the slope with movement at each plowing of the soil layer to the outer border of the strip by 45-50 cm and planting fruit trees on them and subsequently obtaining up to two harvests of fruit products annually.

In Uzbekistan, mountains occupy about one third of the territory. In the agricultural development of the mountains and foothill zone, an important role belongs to horticulture. By their biological characteristics, fruit trees are more adapted to growing in mountainous conditions than other crops; they do better on coarse-skeletal slope soils than annuals. Growing on slopes of annuals, especially row crops, is greatly complicated by soil washout. When cultivating perennial woody plants, including fruit trees, the soil is better protected from erosion, which makes it possible to develop slopes with a steepness of up to 30 °. With the right location and sufficient care, the productivity of mountain gardens is much higher than that of valleys. At the same time, the development of gardening in that foothill area should be based on terracing and drip irrigation. Almonds, walnuts, apple trees, pears, plums, apricots, grapes and other crops grow especially well here. The fruits are distinguished by high commercial qualities. The dignity of the apples and pears of the Sangardak and Khonzhizi massifs of the Sariasi and Uzun regions are very high. They have no competitors in Uzbekistan due to their graceful shape, absence of scab damage, very bright and beautiful integumentary color, high sugar and vitamin C content.

Big tasks are in the field of expansion and intensification of horticulture. In 2010, in the republic from 172 thousand hectares. orchards harvested 1542.8 thousand tons of fruits and the yield averaged 89.7 c / ha. from a vineyard area of 104 thousand hectares. 899.6 thousand tons of grapes were harvested, the yield was 86.5 c / ha.

The President of the Republic at a meeting of the Cabinet of Ministers dedicated to the results of the socio-economic development of the state and the economic

The smallest amount of atmospheric precipitation (less than 100 mm per year) falls in the northwestern flat part of the republic (the lower reaches of the Amu Darya, the western Kyzyl kum, the south of the Kvrakalpakstan Ustyurt). To the east and southeast of this driest zone in Uzbekistan, precipitation

program for 2015 noted that “in 2010-2014. planted 50 thousand hectares. new gardens, of which over 14 thousand hectares. intensive orchards, created on 23 thousand hectares of new vineyards. The intensive orchards created have already begun to bear fruit; an average of 300 centners per hectare has been harvested per hectare. in 2014 and year after year, their yield increases, and this proves that today such gardens have a number of advantages. "The rise in horticulture is especially important because Uzbekistan, in addition to providing

the country's population with fresh fruits, can become a supplier of them to other countries.

One of the aspects of improving the living standards of the population in rural areas of Uzbekistan and sources of income generation is the rational use of land resources located in the unproductive foothill slopes of the republic. The second source of income is the rational organization of the use of pastures and the development of animal husbandry.

The Republic of Uzbekistan is characterized by extreme variegation of physical and geographic conditions, clearly expressed in the uniqueness of a combination of plain (80%) and mountainous (20%) relief. Moreover, the mountains border the plains from the south, southeast and east.

The assessment of the degree of favorableness of the climate for agricultural production is given as part of the general scientific physical and geographical zoning of the territory. The territory of Uzbekistan is almost entirely included in the Turan climatic province, homogeneous in terms of the climatic regime. The differences between the provinces lie primarily in the peculiarities of atmospheric circulation.

Uzbekistan, as part of the Turan province, is divided into flat and foothill-mountainous sub-provinces.

The smallest amount of atmospheric precipitation (less than 100 mm per year) falls in the northwestern flat part of the republic (the lower reaches of the Amu Darya, the western Kyzyl kum, the south of the Karakalpakstan Ustyurt). To the east and southeast of this driest zone of Uzbekistan, the amount of precipitation

as it approaches the mountain ranges, it increases, reaching in the high-mountain zone in some places 1000 mm per year or more. The highest annual precipitation amounts are characteristic of the high-mountainous part of the basins of the Chirchik, Akhangaran, Kashkadarya and Surkhandarya rivers.

In studies on the qualitative characteristics of the natural environment of physical and geographical regions for agriculture, it is necessary, first of all, an agroclimatic analysis of the territory. Areas should be delineated where, from the point of view of climatic possibilities, it is advisable to spread leading agricultural crops. Latitudinal and altitude boundaries must be found, within which the ripening (or achievement of technical ripeness) of fruits and other horticultural products should be ensured to one degree or another.

At this time, in many regions of the republic, the foothills, where it is possible to grow high-quality fruits, are actually empty. On these lands, with appropriate investments, it is advisable to build stepped terraces for growing gardens, which will give an effect of both anti-erosion, environmental and economic nature, which can serve as a source of significant income. Additional jobs are being created, a network of small businesses for the storage and processing of fruits can be developed. To a certain extent, the income of the population is formed, and its standard of living rises.

In the foothill regions of the republic, the development of mountain fruit growing is of great importance due to the fact that there is a lack of water in the foothill plains and in a smaller amount they will provide gardens, since an increase in the amount of precipitation and relative humidity of air to a certain height improves the water supply of trees. In the mountains, fruit plants need less water, and at altitudes of 1000-1300 m they can be cultivated without irrigation. Particular attention should be paid to spring waters, often flowing in temporary flow channels - say, they can

viticulture and melon growing as a source of water for drip irrigation.

Terracing is one of the important means of protecting soil from erosion on mountain slopes. At the same time, these lands are a reserve for increasing agricultural production, it is possible to transform unproductive agricultural lands (pastures) into more productive ones - gardens. In the foothill zone, there are areas that are provided with precipitation and do not require irrigation. Terraces are powerful moisture concentrates. At the same time, they play an anti-erosion role by intercepting the amount of precipitation that does not have time to be absorbed and flows down the slope. The significant steepness of the slopes prevents the development of lands for contour planting, and here terracing with subsequent drip irrigation due to insignificant water resources will allow unproductive lands to be drawn into agricultural circulation.

When terracing slopes, the following tasks should be solved:

a) thematic mapping, foothill and mountain zones, the proposed placement of horticulture based on GIS technology (mapping by relief, by soils, by precipitation, along mountain slopes, by temperature, etc.)

b) prevention of land erosion (soil washout);

c) stopping soil washout;

d) retention of surface runoff and its circulation into the internal runoff;

e) maximum mechanization of work on the construction of terraces;

f) creation of favorable conditions for the growth of perennial crops (the presence of humus horizons of soils on the terrace canvas);

h) maximum use of the area on the terraced slopes;

i) the construction of terraces should be economically feasible.

Terracing should be carried out on a scientific basis, since it requires a deep theoretical and practical study of the nature of erosion processes and the use of a complex of anti-erosion measures.

References:

1. Decree of the President of the Republic of Uzbekistan of December 15, 2021 N PP-52 "On measures for state support of the horticultural sector, further development of the cluster system and cooperation in the industry"

2. Decree of the President of the Republic of Uzbekistan of February 19, 2020 N PP-4610 "On additional measures for the further development of lemon growing"

3. Bakuev Zh.Kh., Kuchmezov Kh.I., Bishenov Kh.Z. innovation in the construction of stepped terraces for intensive gardens. Eurasian Union of Scientists (ESU) 6(75),2020.

4. Bakuev Zh.Kh. Intensification of horticulture in the foothills of Kabardino-Balkaria // Print Center Publishing House - Nalchik, 2012. - 360 p.
5. Berbekov V.N., Bakuev Zh.Kh., Gagloeva L.Ch. Intensive gardening on the slopes of the Central part of the North Caucasus. Monograph // Print Center Publishing House - Nalchik, 2016. - 146 p.
6. Effects of terracing practices on water erosion control in China: A meta-analysis Earth-Science ReviewsVolume // Die Chen, Wei Wei, Liding Chen. -173 October 2017. - P. 109-121.
7. Berbekov V.N., Kuchmezov Kh.I., Karmov S.T., Bakuev Zh.Kh., Temirzhanov I.O. A method for arranging terraces with an increase in the humus layer on the excavation part of the canvas for intensive gardening // Patent of the Russian Federation for the invention No. 2646232. - 2018.
8. Kuchmezov Kh.I., Berbekov V.N., Shomakhov L.A. and others. Method for removing and moving the humus layer when terracing mountain slopes // Patent of the Russian Federation for the invention No. 2697006. -2019.
9. Evaluation of biological absorption of micro - elements and heavy metals for buckwheat phytomass. Ilyinsky Andrey Valerievich Candidate of Agricultural Sciences, Associate Professor, VNIIGiMim..N. Kostyakov", Ryazan
10. Estimatcon of biological absorption coefficients of buckwheat, Ilinskiy Andrey can-didate of agricultural sciences, associate professor Federal State Scientific Institution "All-Russian research institute for hydraulic engineering and reclamation of A.N. Kostyakov, Ryazan DOI: 10.31618/ESU.2413-9335.2020.6.75.866.
11. Optimization of agricultural lands in land equipment projects Khamidov, F.R., Imomov, S.J., Abdisamatov, O.S., ...Ibragimova, G.Kh., Kurbonova, K.I. Journal of Critical Reviews, 2020, 7(11), pp. 1021–1023
12. Modeling of heat exchange processes in the Metanetka bioenergy plant for individual use Sharipov, L.A., Imomov, S.J., Majitov, J.A., ...Pulatova, F., Abdisamatov, O.S. IOP Conference Series: Earth and Environmental Science, 2020, 614(1), 012035
13. Numerical solution of nonlinear integro-differential equations Shodmonova, G., Islomov, U., Abdisamatov, O., ...Kholiyorov, U., Khamraeva, S. IOP Conference Series: Materials Science and Engineering, 2020, 896(1), 012117
14. Transfer equation for the strain rate tensor and description of an incompressible dispersed mixture (incompressible fluid) by a system of equations of dynamic type Yuldashov, A., Abdisamatov, O., Abdullaev, B., Dustova, S.E3S Web of Conferences, 2021, 264, 03025
15. Restoration and use of degraded irrigated lands in the context of land use diversification Usmanov Yusuf Alikulovich Abdisamatov Otabek Saydamatovich science and innovation international scientific journal volume 1 issue 8 uif-2022: 8.2 | issn: 2181-3337 pp.616-624
16. Cadastral value as a tool for monitoring the market value of real estate. construction of a mathematical model for assessing the market value of real estate O.S.Abdisamatov1 2023 issn: 2181-3833 | volume 2 | issue 1 | pp.495-502
17. Use of modern geodetic technologies to improve land reclamation. assis. O.S.Abdisamatov assis.A.Juraev assis.I.Karimov on the occasion of "International Land Day" on the topic "Innovative approaches to management and protection of land resources: problems and creative solutions" republican scientific-practical Tashkent April 22-23, 2019 316 - page 319.
18. Introduction of innovative technologies in effective use of irrigated land in agriculture. O. Abdisamatov, U. Islamov, F. Yusupov Scientific-practical agro-economic journal 2019. Pages 151-153.
19. Energy transfer from large to small scales in turbulence by multiscale nonlinear strain and vorticity interactions (Physical Review Letters (2020) 124 (104501) DOI: 10.1103/PhysRevLett.124.104501) Physical Review Letters, Том 126, Выпуск 2, 13 January 2021, 029901

20. Land changes in Slovakia: Past processes and future directions Author links open overlay panelRobert Pazúr a b, Janine Bolliger a Swiss Federal Institute for Forest, Snow and Landscape Research WSL, Zürcherstrasse 111, 8903 Birmensdorf, Switzerland Institute of Geography, Slovak Academy of Sciences, Štefánikova 49, 814 73 Bratislava, Slovakia Received 1 November 2016, Revised 15 May 2017, Accepted 23 May 2017, Available online 20 June 2017, Version of Record 20 June 2017.
21. Satellite remote sensing data reveal increased slope climbing of urban land expansion worldwide Shi, K., Liu, G., Zhou, L., ...Liu, S., Wu, Y. Landscape and Urban Planning, 2023, 235, 104755
22. A.S.Altiyev.,M Mahsudov Ways to improve the economic and legal framework for the regulation of the system of use of land resources Neuro Quantology. October 2022.Volume 20. Issue 12. Page 01-12. DOI: 10.14704/nq.2022.20.12.NQ
23. K. Rakhmonov, Sh. Rakhmonov, U. Umurzakov, O. Karamatov, I. Bozorov. Land Use and Land Cover Change in Khorezm, Uzbekistan. Annual International Scientific Conference on Geoinformatics-GI_2021. https://doi.org/10.1051/e3sconf /202122701002
24. Magazinshikov T.P. "Land Registry". Lvov. Publishing house of Lviv University, 1986.
25. State of the inter-farm irrigation canal: In the case of Khorezm province, Uzbekistan Matyakubov, B., Goziev, G., Makhmudova, U. E3S Web of Conferences, 2021, 258, 03022

MECHANISMS FOR IMPROVING THE ENERGY EFFICIENCY OF BUILDINGS

Dossaliyev K.S., Zhambaev Zh.B. Saipov Zh.M., Mirkasov B.A., Altynbekov G.T.

M.Auezov South-Kazakhstan University, Shymkent, Kazakhstan,
e-mail: dosaliev_k@mail.ru

Abstract: In the work, analyzes of foreign experiences on energy efficiency of buildings, namely in Russia, the United States of America, Europe and the Scandinavian countries, are considered, which is the closest to our climatic conditions of our republic. Also, issues of research of heat losses in buildings, on reduction of consumption of energy consumption in buildings, due to thermal insulation of external enclosing structures of walls of buildings and roofing coverings are considered. Inclusion of a complex of organizational, technical, regulatory and legal measures that cover all stages of the life cycle of buildings, including design, construction, operation, maintenance, repair and reconstruction. All these issues lead to a fundamental review of issues relating to structural solutions of enclosing structures and the physical and mechanical properties of heat insulation materials used in the Republic of Kazakhstan.

Keywords: energy efficiency, heat loss, reduction, enclosing construction, reduction, heat supply, heat engineering, buildings.

Analysis and generalization of the world experience in energy saving and reduction of carbon dioxide emissions into the atmosphere shows that these issues have developed most in some countries of the world, namely in the USA, Western Europe, especially in Denmark. As you know, a significant amount of consumed energy is used to create comfortable conditions for human life in general: heating, hot water supply, ventilation and air conditioning of premises, electricity supply for lighting and other household appliances. Therefore, with the use of effective heat engineering equipment, more advanced heat supply schemes, energy-efficient space-planning solutions, and reduction of heat energy consumption, the increase in thermal protection of buildings certainly contributes. To reduce heat losses in buildings and to use energy efficiently, it is necessary to design and build new buildings, only with improved heat-shielding properties to increase their energy efficiency. Energy efficiency of buildings largely depends on the thermal protection properties of the exterior structure of the building - enclosing structures: walls, roofs, floors, light apertures.

The main method of reducing energy consumption in buildings in all developed countries of the world now considers improved thermal insulation. Good thermal insulation, while providing profitable capital investments in it, can reduce heating costs by 50% in buildings built at the modern level [1].

In developed countries of the world, especially in Europe, the beginning of developments to improve the thermal and energy characteristics of buildings was the result of the energy crisis of the 1970s. Since 1976, most countries in the world have been periodically reviewing regulations to ensure strict energy consumption

requirements for newly built buildings. As a result, by 2010 the normalized values of the thermal protection of the enclosing structures increased by 2-3.5 times, and the energy consumption in the operated buildings was reduced to 2.5 - 3 times. At the same time, it should be noted that the level of energy requirements in the construction norms of the European Union differs in a rather wide range in 1,2 - 2,6 times. For example, in Denmark, Spain and Germany energy consumption norms in buildings are respectively 12, 14, 18 kW/m^3/year, and in Italy and Belgium, respectively, 28 and 32 kW/m^3/year [3]. At the same time, in spite of such differences, the scientific and technical policy in the EU countries in the field of energy saving is aimed at realizing the general trend of reducing energy consumption by buildings by 10-20% every 3 to 5 years.

The experience of Scandinavian countries in improving the energy efficiency of buildings deserves to be recognized. So in Finland, after the energy crisis, in 1974, new higher standards for heat protection were introduced, applied to all types of buildings. According to the new Finnish standard, the thermal resistance of the external walls and roofing coatings was 2.86 and 4.35 (m^2•^{0}C)/W, respectively, and structures that come into contact with the ground - 2.5 (m^2•^{0}C)/W, window and door fillings not less than 0.48 (m^2•^{0}C)/W [2]. According to the building norms of Sweden, introduced in 1978, thermal resistances were adopted: for walls - 2.5, for coatings - 4.0 and for floors - 2.86 (m^2•^{0}C)/W. In 1985, these values increased accordingly to 4.0 for walls, and to 5.0 for coatings, to 3.33 (m^2•^{0}C)/W for floors [2]. In the Austrian standards for the thermal protection of buildings with a glazed wall exceeding 30%, an increase in the resistance to heat transfer of the walls by 100% and overlap (due to attic) is required by 50% compared to buildings whose glazed walls do not exceed 30% /2/.

Among the European countries, Denmark is the most developed in the field of energy conservation. Not possessing their own fossil energy resources, there earlier than others began to solve the problem of reducing energy consumption in the communal sector, construction, production, transport. As a result, over the last 30 years, with a constant increase in GDP, gross energy consumption in Denmark remains almost at the level of 1980. This was achieved through the implementation of the following strategic directions in energy conservation: the annual directional restriction of energy consumption at the political level; the creation of a unified electricity supply network with the import and export of electricity to neighboring states; annual revision of building codes with strict energy requirements for newly built buildings; the possibility of selling excessively produced electricity and heat from the consumer to a common network; carrying out energy audit and certification of buildings for energy consumption; wide propaganda and education of the population in the spirit of energy saving. As a result of the constant revision and tightening of building norms for energy consumption, the Danish standards provide the lowest level of specific energy consumption in the EU countries. The dynamics of energy consumption reduction in the residential sector of Denmark clearly demonstrates the effectiveness of the measures applied. So, the average

level of energy consumption by now, compared to the pre-crisis level in 1979, is reduced in residential buildings by more than 2 times and is 85 kW/ m^2/year. At us, for comparison, this indicator makes approximately 230 kw/m^2/year. In public buildings, the average standard in Denmark is 97 kW/m^2/year, and we have 296 kW/m^2/year.

Increasing the energy efficiency of buildings has become one of the main directions of the development of construction in the CIS countries in the last 15-20 years.

The most intensive energy conservation issues are developing in Russia, where a number of legislative acts were adopted. At the governmental level, an energy strategy has been developed that defines the goals and objectives of energy policy, which consists in maximizing the efficient use of natural resources and the potential of the energy sector for sustainable economic growth. The concept of [3] rationing the energy efficiency of buildings and facilities involves the development and adjustment of a system of normative and methodological documents, most of which are currently absent or hopelessly out of date.

The practice of design and construction in Russia and other CIS countries is fundamentally different from the European one and is aimed at determining the calculated indicators for maximum energy consumption by engineering systems of buildings, taking into account the standardized level of thermal protection of external fences of structures. According to the calculated maximum parameters, the installed capacity of the heat-power-consuming engineering equipment is selected. Therefore, it was decided [3] that it is advisable to harmonize the Russian concept of energy efficiency with the concept of the countries of the European Union defined by the directive in the EU countries [4], with the obligatory consideration of the domestic experience in the development of normative documents, the peculiarities of the state and development of the industrial and construction industry, climatic and geographical features.

The main task formulated in the development of the system of normative documents was to realize the energy saving potential in the construction sector by improving the energy efficiency of new, reconstructed and maintained buildings and their energy supply systems. The goal was to improve the energy efficiency of buildings by at least 35-45%, starting from 2000 in comparison with the base level of 1995, to reduce emissions of environmentally harmful substances in the energy supply of the newly erected and reconstructed existing housing stock, especially the mass construction of the 50-60 years, and thereby promote both the protection of the environment and the energy security of Russia.
In the Republic of Belarus, measures to reduce energy consumption in the housing and communal sector are implemented within the framework of the sectoral program; they include a set of organizational, technical, regulatory and legal measures that cover all stages of the life cycle of buildings, including design, construction, operation, maintenance, repair and reconstruction [5]. One of the measures to significantly reduce the energy losses of buildings, and, consequently,

the consumption of heat energy for heating, is recognized as increasing their thermal protection by increasing the resistance to heat transfer of the enclosing structures. At the same time, attention is drawn to the fact that an increase in the resistance to heat transfer of the enclosing structures is associated with an increase in the cost of fences and buildings as a whole. In this regard, in the normalization of the resistance to the heat transfer of the enclosing structures in the Republic of Belarus, by analogy with foreign practice, proceed from the economically feasible value of resistance to heat transfer. This approach to determining the resistance to heat transfer in world practice is recognized as the most reasonable. Calculations also indicate that the increase in the cost of energy resources also increases the importance of an economically feasible level of resistance to heat transfer of the enclosing structures of buildings. This fact is confirmed by the practice of a phased increase in the standard resistance to heat transfer by developed countries.

Technical and economic assessment of the possible increase in the resistance to heat transfer of the shell of the building, made in the Republic of Belarus for external walls, covers, attic floors, attests to the economic feasibility of such a step. The recoupment of one-time costs for increasing the thermal resistance of enclosing structures of residential buildings is no more than 8 years with the cost of energy resources for a given period, with an increase in the cost of energy resources (gas) by 2 times the recoupment of one-time costs will be about 5 years [5].

At the same time, the already achieved high level of requirements for thermal protection of buildings in the Republic of Kazakhstan requires a fundamental review of the issues relating to structural solutions of enclosing structures and the physical and mechanical properties of the heat insulation materials used. Wall fencing made of traditional wall materials (brick, structural and heat-insulating light concretes) that perform both load-bearing and heat-insulating functions in single-layer structures, can no longer be used without additional thermal insulation with the use of effective thermal insulation materials with a sufficiently low thermal conductivity. So, for example, to provide the second level of heat protection, which is according to the norms of SNiP Heat engineering and construction geophysics compulsory for social buildings (schools, colleges, lyceums, etc.), clay brick walls should have a thickness of 510 and 640 m. the thickness of the walls is economically inexpedient.

Conclusions. In view of the foregoing, it should be noted the undoubted importance and the need to develop research on further improving the regulatory framework for the design of energy-efficient enclosing structures that provide ever-increasing requirements for thermal protection of buildings. In conditions when the saturation of the market and the domestic industry of building materials do not cover the construction needs for heat-insulating materials, the development of their effective types and enclosing structures based on them using local raw materials and production wastes acquire special significance and relevance. In our country, it is necessary to carry out a great work on development of import-

substituting production in the republic of effective heat-insulating materials and products, enclosing structures.

References

1. Energy saving in urban development / Ed. R. Cortpie; Abbr. Per.s. Eng. A.S. Gusev et al.; Ed. E.V. Sarnatsky - M.; Stroizdat, 1983.
2. Belyaev V.S., Khokhlov L.P. Designing of energy-efficient and energy-active civil buildings. Учеб.пособие для вузов.М.Высшая школа, 1991.
3. Pugachev S.V, Tabunshchikov Yu.A., Naumov A.L., Fadeeva E.N. Russian concept of rationing the energy efficiency of buildings and structures // AVOK. - 2011. - No. 8.
4. Directive 2010/31 / EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings.
5. Energy saving in the construction and reconstruction of housing / (Report of the Director of the Institute NIPTIS of the Republic of Belarus Pilipenko V.M. at the 25th meeting of the Intergovernmental Council for Cooperation in the Construction Activities of the CIS Member States).
6. Law of the Republic of Kazakhstan on Energy Saving and Energy Efficiency Improvement (with amendments and additions as of December 28, 2016)

ANALYZING DEFECTS AND DAMAGE TO STRUCTURES OF RESIDENTIAL AND CIVIL BUILDINGS

Zhambayev Zh.B., Zhanabay A., Saipov Zh. M., Myrkasov B.A., Altynbekov G.T.

M.Auezov South Kazakhstan State University, Shymkent, Kazakhstan

Abstact: The work examines and analyzes damage to residential large-panel buildings built in the 80-90s of the last century. The horizontal joint of the external panels is designed in such a way as to exclude the possibility of moisture entering the room. Having examined and analyzed these joints, we came to the conclusion that the most successful solution in structural terms to ensure spatial rigidity is the 1-464 A series, since all the main load-bearing elements are interconnected. In terms of sealing, the best solution is the joint of the 1-125 series, which has a narrower mouth compared to other series, which contributes to less moisture penetration. The practice of operating large-panel buildings has shown that the most unreliable element is the joint of external wall panels, which accounts for approximately 30 - 35% of all leaks, freezing, peeling of interior decoration and other damage. The reasons for these phenomena are imperfect design solutions, poor-quality sealing of joints, loose grouting, poor-quality gluing of insulating material in the joint plane, violation of tightness during the operation of buildings, etc. The reasons causing increased air permeability and leakage of joints of external wall panels have been identified. These include: moistening the insulation with rainwater penetrating into the mouth of the joint, careless installation of a heat-insulating liner, non-compliance with design tolerances during the manufacture and installation of panels, misalignment of external panels during installation, failure to comply with technical conditions and sealing rules, defects when gluing roofing material in the plane of the joint, local destruction of the “tooth”, incorrect installation of the water barrier tape, etc. Whatever anti-corrosion protection measures are applied, the operating mode of metal embedded parts in hidden units (under conditions of systematically changing temperatures and humidity in the material of external wall panels and inevitable uneven settlement) cannot but contribute to the appearance and development of corrosion over time.

Keywords: embedded parts, grouting of joints, wall panels, sealing of joints, joint defects, depressurization.

Large-panel housing construction in the Republic of Kazakhstan took on a wide scope from the 1960s to 1990, when the development of a series of standard prefabricated projects began. During the first stages of construction from 1959 to 1971. the following structural systems were adopted: with longitudinal and transverse load-bearing walls; with full frame; with an incomplete frame. In 1963, based on new standards, the development of improved standard housing designs began.

Panels of external walls of buildings of various series are made in one-, two- and three-layer. The most common are single-layer panels made of lightweight and cellular concrete. Internal walls are divided into load-bearing (inter-apartment) and non-load-bearing (interior). Load-bearing internal walls are subject to requirements for reliability, fire resistance and sound insulation. Currently, solid single-layer panels of internal walls of acoustically homogeneous design are most widely used. The interfloor ceiling as an inter-apartment enclosing and load-bearing structure is

one of the most critical elements in terms of combining operational requirements in the structural design of large-panel buildings. Along with the general requirements of strength, rigidity and fire resistance, the interfloor ceiling must meet the requirements of sound insulation from impact and airborne noise. Floor panels for various series have one or more manufacturing methods: solid cellular room-sized or multi-hollow.

In large-panel buildings, three main structural types of roof are used: a roofless (combined) roof with a soft roof made of rolled materials; attic with a cold attic, with a rigid or roll-free roof; attic with a warm attic with a rigid or roll-free roof.

The horizontal joint of the external panels is designed in such a way as to exclude the possibility of moisture entering the room.

Having examined and analyzed these joints, we came to the conclusion that the most successful solution in structural terms to ensure spatial rigidity is the 1-464 A series, since all the main load-bearing, elements are interconnected.

In terms of sealing, the best solution is the joint of the 1-125 series, which has a narrower mouth compared to other series, which contributes to less moisture penetration.

Surveys and observations of the condition of large-panel buildings made it possible to identify the following issues that need to be paid attention to during the inspection process:

- direct moistening of walls with storm, flood and groundwater;
- additional loads on the walls that are formed as a result of glazing loggias and balconies, arranging warehouses for household items on balconies, additional fastenings of canopies to the walls, installation of large flower boxes, etc.;
- condition of panel joints;
- the state of insulation in multilayer external enclosing structures: multilayer panels and combined roofs;
- condition of the protective and decorative coating;
- the condition of other parts of buildings have a significant impact on the condition of adjacent sections of the walls.

as well as the most common structural defects in residential buildings:

- cracks in joints and panels;
- freezing of individual elements;
- corrosion of reinforcement;
- spalling and delamination of concrete;
- sinks and voids in structures;
- peeling of the protective layer of concrete.

Distribution of defective elements of five-story panel buildings (Fig. 1), thus, having analyzed this distribution, we can note those structural elements that need to be paid the closest attention.

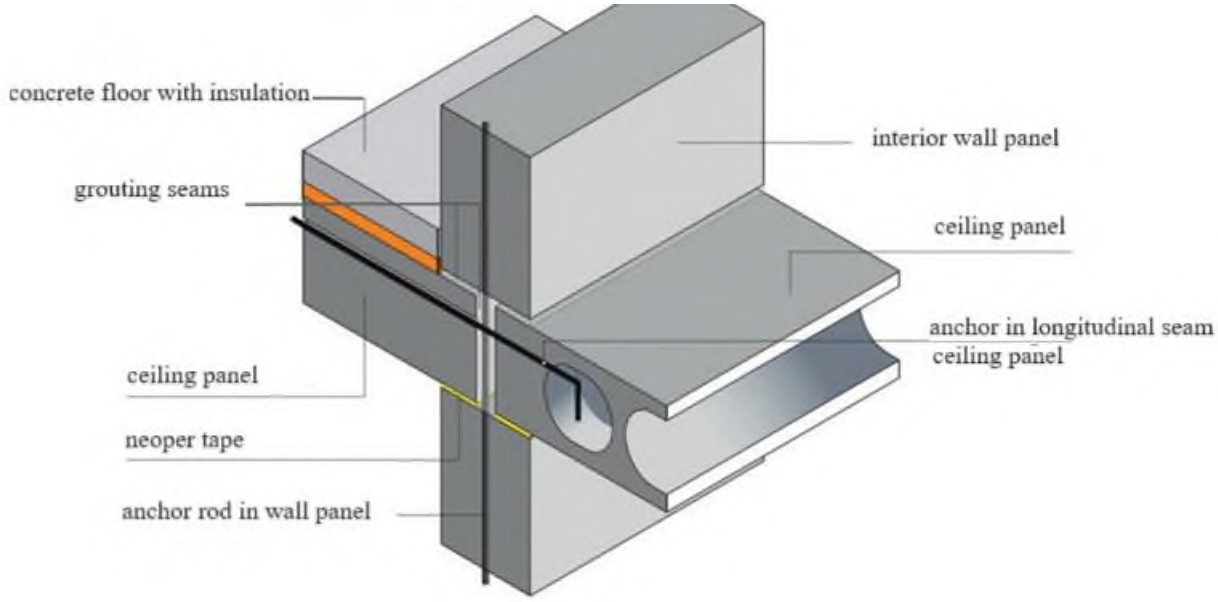


Figure 1 - Distribution of defective elements of five-story panel buildings

Of all the reasons, there is one that is the main one, and it is this that must be eliminated first. Other causes are eliminated in parallel with the main one.

Damage is classified into four main groups, which can be taken as a basis:

1. Damage caused by design solutions given in the project or specific properties of materials.
2. Damage caused by poor-quality construction and installation work.
3. Damage caused by product manufacturing technology.
4. Damage resulting from unfavorable operating conditions.

The practice of operating large-panel buildings has shown that the most unreliable element is the joint of external wall panels, which accounts for approximately 30 - 35% of all leaks, freezing, peeling of interior finishing and other damage. The reasons for these phenomena are imperfect design solutions, poor-quality sealing of joints, loose embedding with concrete (mortar), poor-quality gluing of insulating material in the plane of the joint (these shortcomings are due to poor-quality construction), violation of tightness during the operation of buildings (these are operational factors, and also features and specific properties of materials), etc. The reasons causing increased air permeability and leakage of joints of external wall panels have been identified. These include: moistening the insulation with rainwater penetrating into the mouth of the joint, careless installation of a heat-insulating liner, non-compliance with design tolerances in the manufacture and installation of panels, distortion of external panels during installation, failure to comply with technical conditions and sealing rules, defects when gluing roofing felt in the plane of the joint, local destruction of the “tooth”, incorrect installation of the waterproof tape, etc.

Of particular importance is the sealing of joints at the nodal interfaces of the panels. In large-panel house construction, the joints of external wall panels with

each other, with internal panels and interfloor slabs are the most complex and critical junctions. There is conflicting information about the development of corrosion of metal embedded parts in large-panel houses, so the authors of many works sought opportunities to assess the quality of embedded parts on existing facilities. The results of such checks are also contradictory, but we can safely say that the durability of metal parts depends on compliance with the work technology, on the qualifications and responsibility of the workers.

Whatever anti-corrosion protection measures are applied, the operating mode of metal embedded parts in hidden units (under conditions of systematically changing temperatures and humidity in the material of external wall panels and inevitable uneven settlement) cannot but contribute to the appearance and development of corrosion over time. Disadvantages of welded joints also include the difficulty of controlling welds. When processing series 1-464 Av 111-121, a locking joint with continuous embedding was used. However, it is not universal either. Thus, the main causes of corrosion of metal products at joints are: poor tightness of joints, porous structure of panels, sedimentary and shrinkage deformations, temperature and humidity fluctuations in the outside air, as a result of which cracks form, which in turn cause leaks, moisture moisture, high air conductivity coefficient, temperature changes.

Knowledge of the physical deterioration of a building is important not only for calculating the costs of its restoration, but mainly for predicting the frequency of repairs. The essence of the method for determining physical wear and tear based on the actual condition is that through a thorough inspection of each structural element of the building, the most characteristic signs of wear are identified, on the basis of which wear is determined as a percentage. The actual condition of structures is assessed through visual assessment, and in order to eliminate the subjective factor, signs of the technical condition of structural elements, collected in the form of tables, were developed.

In our country, the determination of actual physical wear and tear for the revaluation of fixed assets is at the beginning of its development. However, all buildings are periodically revalued with the determination of their physical depreciation in value terms, which, together with data on the replacement cost of buildings, serves as the basis for a well-founded solution to the issues of establishing depreciation charges and the reproduction of buildings in general.

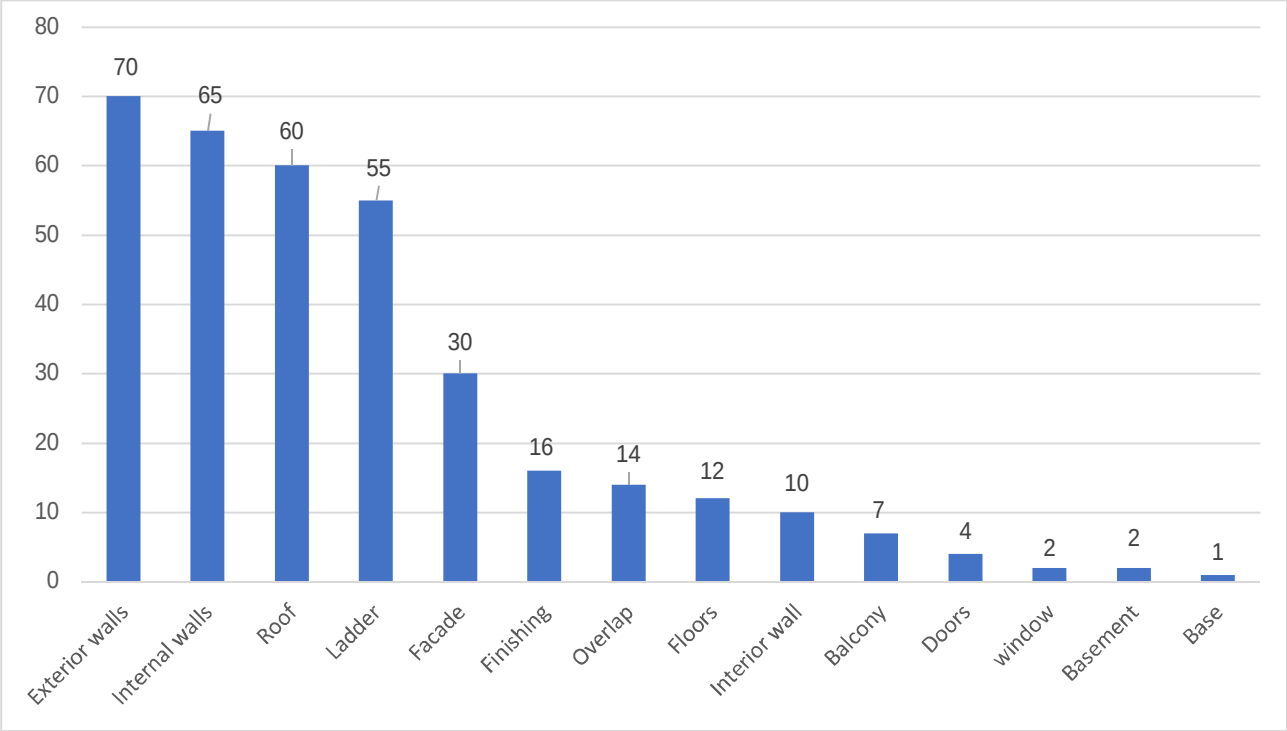


Figure 2 – Physical wear and tear of large-panel residential buildings

Based on the appearance of the diagram, we can confidently say that physical wear and tear in the first years of operation increases most intensively due to the action of certain factors (settlement of foundations, shrinkage of mortar, manifestation of installation and manufacturing defects, etc.). Further, the increase in physical wear slows down, which is associated with the stabilization of foundation settlement and shrinkage processes in structures. The third stage of the service life again gives a significant change in physical wear and tear. Thus, with an increase in the duration of operation of buildings, the cost of repair and restoration work increases. Consequently, the longer the issue of repair and reconstruction of houses of the first mass series is postponed, the more funds will have to be spent on its production in the future.

References

1. Blekh E.M. Economic problems of obsolescence and modernization of residential buildings. - M.: Stroyizdat, 1985. - 216 p.
2. Boyko M.D. Diagnostics of damage and methods for restoring the operational qualities of buildings. - JL: Stroyizdat, Leningrad. department, 1975. - 336 p.
3. Bubes E.Ya. and others. Optimal long-term planning of capital repairs and reconstruction of housing stock. / E.Ya. Bubes, G.T. Popov, K.A. Sharlygina. Ed. E.Ya. Bubesa. - L.: Stroyizdat, Leningrad. department, 1980. - 190 pp., ill.
4. Valov V.M. Renovation of houses of the first mass series. Zh.: Housing construction, 1993, N^{o} 8, p. 9-10.
5. Sealing of joints of prefabricated buildings and structures. Directory. - Baglay A.N., Karapuzov E.K., Omelchenko A.A. - K.: Budivelnik, 1989. - 144 p., ill.
6. Drozdov P.F., Sebekin I.M. Design of large-panel buildings (frame and frameless): Textbook. -M.: Stroyizdat, 1967. - 416 p.

METHODS OF FINISHING MATERIALS AND TECHNOLOGY OF DECORATING MODERN CLOTHES

Janpaizova V.M., Kim I.S., Khozha A.I., Tursynbek D.B.

Zhumabek Akhmetovich Tashenev University, Shymkent, Kazakhstan
vasmir1@ mail.ru

Abstact: The article is devoted to the issues of finishing clothes in the context of fashion trends. Modern fashion materials give preference to types of elements that combine hand-decorated elements and new technologies. Methods of perforation in clothes are provided. On the basis of the proposed algorithm, the preparation and design of the model of women's clothing was carried out.

Key words: *finishing, clothing, perforation, guilloche, clothing decoration, fashion trends.*

Nowadays, the consumer has high demands for modern clothes. So, it should not only be well-designed and made of textile materials with high performance properties, but should also express one's personality. Customization of the image of the customer allows to apply to the finishing of the garment while designing and making it. Finishing often shapes the aesthetic perception, allows to significantly improve the quality and expand the range of clothes.

Studying ways of finishing products and testing them is one of the urgent tasks of constructive and decorative decision of clothes. The relevance is due to the fact that with the emergence of new types of materials and new types of finishes with different properties, there is a need to study and evaluate the technology of obtaining finishes.

In previous studies [1], their classification was made based on the theoretical understanding of the variety of finishing types. This classification is presented in the form of a structured multi-level scheme, where all types of clothing are considered at four levels:

1) according to the method of preparation: surface finishing, bulk finishing, additional accessories;

2) by the way of impact on the material: mechanical impact, physico-chemical impact, mixed impact;

3) according to the method of joining (fixing) the finish: threading, glueing, welding, riveting, fastening with the help of PPE, fixing with the help of PPE and chemical means;

4) by the range of types of finishing (by name): appliqué, embroidery, finishing seams and seams, finishing fittings, finishing with wire, becky, edge, folds, draperies, clamps, buffers, folds, corrugations, etc. b.

The analysis of modern fashion trends in clothing from the standpoint of studying the types and methods of finishing showed an even greater variety, which indicates the need to make additions to the existing classification, so that the accumulated knowledge leads to the level of a systematic approach for accurate orientation in the variety of types and technologies of finishing in clothes.

Modern fashion focuses on hand-made products, but it is not denied that high-tech engineering developments expand innovations in garment decoration. Currently, finishing combining handmade elements and new methods of its creation (welding, gluing, laser processing, etc.) is gaining more and more attention. In addition, new technologies of clothing decoration are not always know-how. They are often associated with the use of traditional decoration practices of different materials or the replacement of traditional decoration methods with new materials. Taking into account the retrospect and development perspective of finishing technologies, it is worth noting the significant impact of the processes of differentiation and integration in the chemical fiber and textile industries on these technologies.

The variety of decoration is characteristic of products of high luxury and personal demand, for which traditionally complex decoration is voluminous embroidery and appliqué, perforation, inlay, new methods of dyeing and printing, etc. types of finishes such as

The analysis of fashion trends of the 2021-2022 fall-winter and 2023 spring-summer seasons (based on more than 200 collections) made it possible to single out perforation as the main trend - a figure thread pattern. Designers continue to master this finishing technology. Thus, perforated models in fabric and leather were presented by Alexander Mc Queen, Burberry Prorsum, Damir Doma, Sacai and many other fashion houses (Figure 1).

Figure 1 - Perforation in Burberry Prorsum Alexander McQueen, Damir Doma collections

Since the information about this type of decoration available in special literature is mainly descriptive, theoretical and practical researches were conducted on the decoration of clothing with perforation.

The first prerequisites for the appearance of perforation as a form of decoration can be found in elements of Renaissance clothing in Germany. The peculiarity of the costume of this period was that the clothes were cut along

constructive lines (armpits, elbow seams, on the chest), through which a white linen undershirt was released, which created a special decorative effect (Fig. 2).

Figure 2 - Renaissance women's and men's clothing

The analysis of the traditional and innovative methods of performing perforation on clothes made it possible to create a classification of perforation types, which can be included in the previously created general classification of finishing types, highlighting the following groups:

- perforation obtained by cutting with scissors on non-shedding fabrics and knitwear;
- perforation obtained by cutting textiles with professional punches or presses; commonly used in leather goods and allows for the creation of leather decorated with various patterns and ornaments;
- applying perforation-fabric obtained as a result of guilloche;
- perforation obtained by laser processing of textile products, it

it is made by a non-contact method and allows working with complex, "bulk", synthetic, mixed fabrics.

Guilloching is one of the newest and most interesting forms of applied creativity. The word "guilloching" comes from the French and means to get a pattern in the form of an ornament, which is a dense network of intertwined wavy lines; pictures of this type are called guilloche. Fabric burning is based on the properties of fabrics, consists of chemical fibers, melts and glues under the influence of high temperature.

There are several types of guilloche:

- cut open work (perforation) - can be in different forms: points (injections), holes, punches, mesh and other contours.
- open edge processing is performed in several ways: breaking, cutting, "stem seam", punches (points), brackets.
- application.

Figure 3 - Types of execution of guilloche

The image of the collection was created by using original cuts, new structural and decorative parts, a variety of silhouette shapes and perforations made in the guilloche technique as a finishing touch. The design and creation of clothing models with this type of finish was carried out according to the developed algorithm.

Only synthetic fabrics are suitable for finishing in guilloche technique. These fabrics do not burn under the influence of a hot needle, but melt and become sticky. In this case, heat is generated in the material, which allows the thermoplastic material to become viscous without forming a liquid bath.

The chemical nature of the welded material, the temperature limits of its softening and melting, the pressure in the material processing area, the temperature and heating time of the material, the thickness of the material, etc., affect the quality of the pattern formation on the fabric. b. factors like crepe de chine, a cloak fabric made of synthetic fibers.

As the main tool of guilloche, the "pattern" device for burning wood and fabric was used. In addition, glass to protect the work table from damage, a stencil, cotton cloth to remove carbon from the hot needle, fine sandpaper (used to clean the hot needle from burning), and also a simple pencil to transfer the pattern to the fabric through the stencil are used. The readiness of the needle to burn is checked on a piece of fabric, which allows you to adjust the optimal level of the needle's heat temperature. The tip of the needle should be kept perpendicular to the burned surface during the burning process. In the process of cutting the fabric, it is necessary to clean the hot needle from the layer of the molten mass of the fabric with sandpaper or a piece of cotton cloth.

A feature of designing materials in the guilloche technique is the game of imitation. As a result, the previously plain dyed cloak fabric from which women's trousers and hats were made is decorated with a pattern typical of richelieu-decorated fabric.

Another version of finishing in the guilloche technique was tested when making women's tunics. In this case, burning is performed in the technique of

applying it to transparent fabric. The following steps are added to the above algorithm:

- apply the upper layer of contrasting fabric along the transparent contour;
- Laying a paper-based glue mesh with horizontal strips on each side with the help of an iron on the perforated cutting part from the wrong side 2 cm;
- connecting the perforated cutting part of the back to the main part by glue method.

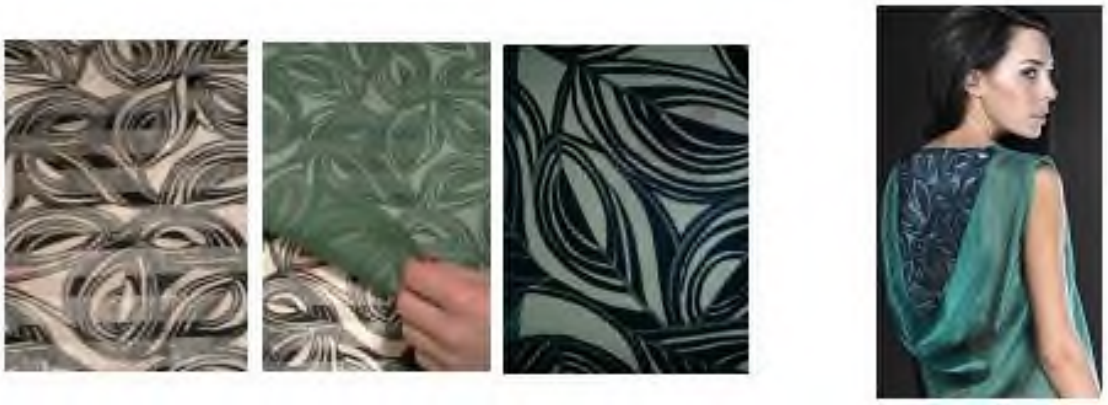


Figure 4 - Guilloche finishing on a pattern of women's tunic made of transparent fabric.

Thus, the study of the subject area of clothing finishing production showed that it is possible to obtain new types of finishing in products made of modern materials with synthetic threads using traditional methods of decorating materials. In addition, the use of the guilloche technique makes it possible to create collectible items for participation in creative contests and exhibitions, and means taking into account all stages of design: from the development of a sketch to the production of products on individual demand.

References

1. Kryukova, N.A. Tekhnologicheskiye protsessy v servise. Otdelka odezhdy iz razlichnykh materialov: ucheb. Posobiye. – M.: FORUM: INFRA-M, 2007. – 440 s.
2. Kryukova, N.A. Razrabotka sposoba sozdaniya i zakrepleniya otdelki s ob"yemnymi effektami v izdeliyakh iz trikotazhnykh poloten: dis. kand. tekhn. nauk. – M., 2014.
3. Kryukova, N.A. Teoreticheskiye i metodologicheskiye osnovy proyektirovaniya formoustoychivoy odezhdy iz trikotazhnykh poloten: monografiya/ N.A. Kryukova, N.M. Konopal'tseva. – M.: GOUVPO «MGUS», 2016. – 168 s.
4. Kotenkova Z.P. Vyzhiganiye po tkani. Izdeliya v tekhnike gil'oshirovaniya. – M.: Akademiya Razvitiya, 2022.
5. Amosova, E.YU. Formirovaniye modnykh tendentsiy pod vozdeystviyem innovatsionnykh tekhnologiy// Tekstil'naya promyshlennost'. – 2020. – №2. – S. 40-43.

ISSN 2700-8622

Eurasian Education, Science and Innovation Journal

Volume 17, January 2024

Published by Shan Engineering Consulting
http://www.euco.kz

OPEN ACCESS