

**ОБРАЗОВАНИЕ,**

**НАУКА И ИННОВАЦИОННЫЕ ИДЕИ  
В МИРЕ**

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# ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ

*международный научный электронный журнал*

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## FLEXIBILITY IN TEACHING. PLANNING FOR MIXED ABILITY CLASSES

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**Annotation:** In this article talks about the skill that a teacher should have in the teaching process, which is flexibility. Getting students interested in the lesson is also a skill. It shows the pedagogical level of the teacher.

**Key words:** flexibility, actor or actress, ability, skill, professional.

**Annotatsiya:** Ushbu maqolada o'qituvchining o'qitish jarayonida ega bo'lishi kerak bo'lgan mahorat, ya'ni moslashuvchanlik haqida so'z boradi. O'quvchilarni darsga qiziqtirish ham mahoratdir. Bu o'qituvchining pedagogik darajasini ko'rsatadi.

**Kalit so'z:** moslashuvchanlik, aktyor yoki aktrisa, qobiliyat, mahorat, professional.

**Аннотация:** В данной статье говорится о навыке, которым должен обладать учитель в процессе обучения, а именно о гибкости. Заинтересовать учащихся уроком – это тоже навык. Это показывает педагогический уровень учителя.

**Ключевые слова:** гибкость, актер или актриса, способности, мастерство, профессионализм.

The more flexible a teacher's approach, the better they are able to adapt to the room and the higher the chances are of increased student participation and engagement – ensuring that no child gets left behind under your watch.

How does mixed ability grouping help teach tolerance to students?

This grouping also teaches students tolerance and understanding by promoting interactions and discussions among groups of students from different backgrounds or life experiences and allowing them to work together.

All classes consist of individual students with different personalities and interests. In that respect, all classes are 'mixed ability' classes. All students themselves have mixed abilities, as some may find one particular task or approach more appealing than other tasks or approaches. With this in mind, some teachers may have some difficulty dealing with the different learning levels of their pupils. What they should always keep in mind is that they need to adopt a flexible methodology that allows for a variety of learning styles and abilities.

In fact, teachers have had to face this dilemma since the days of the one-room schoolhouse, which mixed 6 to 16 year-old pupils in the same area. But since then, mixed ability classes have become quite frightening for parents, as many are convinced that children can't reach their highest potential in such classes.

In fact, differentiation may be the key word for teachers to deal with such classes. First, teachers need to realise that all learners vary in their readiness, interests and learning profiles. Pupils indeed display a number of differences in their learning abilities, motivation, previous exposure to learning, learning style, personality or attitude ? only to mention a few possible features. Hence, teachers can set up classrooms where everybody works towards essential understandings and skills but uses different content, processes and products to get there.

Here are some tips to help you deal with heterogeneous classes:

- Try to make sure that all students understand what is happening in the lesson
- Use group work, pair work and individual work. Such activities are useful not only for the teacher to observe students but also for the students to cooperate and to learn from each other.

- Follow your course book, which may contain a variety of tasks, but also try and find supplementary materials. Since most textbooks are designed for an ideal homogeneous classroom environment, teachers always have to deal with the problem that students react to the textbook differently due to their individual differences.

- Ask open-ended questions and encourage creativity without limiting the students to single no or yes answer. These tasks allow each learner to perform at his/her own level. Some of the students may be good at understanding but might be weak in expressing themselves orally or in written work; thus, open-ended tasks give them the chance to express themselves without trying to find the one and the only correct answer.

- Use visuals. They are always useful for all age and proficiency levels, so even using coloured chalk or board markers attracts learners' attention to the teaching point. Hence, teachers can make use of visuals to grab students' attention and to motivate them.

- Students love games, competitions and dramatisation, so these are ways of ensuring their interest in the lesson. Regardless of the differences among the students in terms of language level and learning styles, they are motivated to use the target language while they are playing a game or participating in a completion or a role-play for instance.

- It is advisable to have special plans for the early finishers in case they finish the tasks earlier. This contingency plan might be an extra exercise, a handout or a reading passage.

- And most of all, forget this heterogeneous stuff and concentrate on variety of interesting tasks.

How to Teach Mixed Ability Classes? We know and want to share you which are some teaching steps the mixed ability classes. It include:

1. Structure your lessons so that activities have more open-ended possibilities. ...
2. Create ongoing activities. ...
3. Use level-specific material. ...+
4. Communicate equally with the whole class. ...
5. Use positive pair-work.

Put simply, it combines online learning with aspects of more traditional face-to-face learning experiences. Mixed mode learning is also known as hybrid and blended learning but there are many different definitions, interpretations and ways of implementing each of these.

Mixed ability classes are very interesting and demanding. And also teacher should be flexible. Mainly because it can be increase qualification of lesson.

Advanced Students Less Advanced Students

Write the new vocabulary words on the board once they have finished with their activity and use this for review. Pre-teach difficult vocabulary words and leave these up on the board as a guide. Make use of visuals where possible.

Rewrite a part or the whole of the text in a different tense. Set the scene before diving into the reading activity. Look at any pictures, the heading, etc.

Write a short summary of the reading text or write a paragraph or two giving their opinion on the piece Break up the text and give them the option of only reading part(s) of the text if necessary.

For listening activities:

Advanced Students Less Advanced Students

For any true/false questions, follow up by asking 'why?' or 'why not?' Pre-teach vocabulary and use visual prompts where possible.

Focus on accents or intonation and have the students copy it. Also, focus on the why of the intonation where needed. Give the students time to discuss the answers with a peer before feeding back.

Give out a script of the exercise and have the students pick out and find definitions/meanings for tricky words. When it is time to listen for a second time, give the students a script to follow along with.

Advanced Students Less Advanced Students

Provide creative tasks so that students can complete it at their own ability level. Correct the draft with the student before they rewrite it neatly.

Let the students self-correct by using correction codes (SP – spelling, etc.) Reduce the word limit or increase the time limit.

Let them write more or write within a certain time

limit. Provide an example piece of writing before the actual activity starts or provide scaffolding.

For speaking activities:

Advanced Students    Less Advanced Students

Students should justify or defend their opinions.    Provide students time to gather their ideas before role-playing or discussing.

Ban easy words or certain words (use synonyms).    Allow students to make notes as part of their thinking time.

Students should record their speaking, playback

and self-correction. Pair an advanced and a less advanced student together.

### REFERENCES

1. Brown, H. D. (2007). Principles of language learning and teaching. Pearson Education.

2. Carnegie, D. (1936). How to win friends and influence people. Simon & Schuster.

3. Celce-Murcia, M., Brinton, D. M., & Snow, M. A. (2014). Teaching English as a second or foreign language. Cengage Learning.

4. Cohen, A. D. (2003). The learner's side of foreign language learning: Where do styles, strategies, and tasks meet? In English language teaching in its social context: A reader (pp. 148-160). Routledge.

5. Council of Europe. (2001). Common European framework of reference for languages: Learning, teaching, assessment. Cambridge University Press.

## TEACHER'S PHYSICAL PRESENCE IN THE CLASSROOM

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**ABSTRACT:** This article explores the significance of a teacher's physical presence in the classroom and its impact on student learning and engagement. The study examines the key aspects of the teacher's physical presence, including proximity, body language, and non-verbal communication. It analyzes the benefits of a teacher's physical presence, such as building rapport, facilitating classroom management, and enhancing instructional delivery. The article also discusses the challenges and considerations associated with physical presence, including the need for adaptability in virtual and hybrid learning environments. By understanding the role and implications of a teacher's physical presence, educators can optimize their instructional strategies and create an inclusive and conducive learning environment.

**KEYWORDS:** teacher's physical presence, classroom environment, student engagement, instructional delivery, non-verbal communication.

## INTRODUCTION

In the realm of education, the physical presence of a teacher in the classroom holds immense importance. It goes beyond the delivery of instruction and encompasses various aspects that significantly impact student learning and engagement. This article delves into the significance of a teacher's physical presence, examining its key components, benefits, and challenges. By understanding the role and implications of a teacher's physical presence, educators can create a supportive and engaging classroom environment that facilitates effective teaching and learning.

## METHODS

This article draws upon a comprehensive review of existing literature on the topic of a teacher's physical presence in the classroom. Scholarly articles, research studies, and educational resources were analyzed to gather relevant information on the impact and implications of teacher presence. The sources were critically examined to identify common themes and key factors associated with physical presence in the classroom.

Proximity, or being physically close to students, allows teachers to establish a sense of connection and accessibility. It enables teachers to observe student behavior, provide immediate feedback, and address individual needs effectively. Proximity also fosters a supportive and secure environment, encouraging students to actively participate in classroom activities. Body language and non-verbal communication are

essential aspects of a teacher's physical presence. Positive body language, such as maintaining eye contact, using gestures, and exhibiting enthusiasm, conveys interest and engagement, capturing students' attention and fostering a positive learning atmosphere. Non-verbal cues, such as facial expressions and tone of voice, convey empathy, encouragement, and support, which help build rapport and trust with students.

## RESULTS

The physical presence of a teacher encompasses various elements that contribute to the overall classroom environment and student experiences. Proximity, body language, and non-verbal communication play crucial roles in establishing a positive rapport between the teacher and students. When a teacher is physically present, students feel a sense of connection and support, which enhances their engagement and motivation to learn.

Benefits of a teacher's physical presence include improved classroom management, increased student participation, and enhanced instructional delivery. The close proximity of a teacher allows for better monitoring of student behavior and facilitates timely interventions when needed. Furthermore, a teacher's body language and non-verbal cues can convey enthusiasm, empathy, and encouragement, fostering a positive learning atmosphere. In addition, the physical presence of a teacher enables effective instructional delivery, as it allows for immediate feedback, clarification, and personalized attention.

However, the evolving nature of education, particularly with the rise of virtual and hybrid learning environments, presents challenges to the traditional concept of physical presence. Educators must adapt their strategies to maintain a sense of presence and connection, even in remote settings. This may involve utilizing videoconferencing tools, utilizing effective virtual classroom management techniques, and finding creative ways to engage students from a distance.

## DISCUSSION

A teacher's physical presence in the classroom plays a vital role in creating an inclusive and conducive learning environment. Proximity, body language, and non-verbal communication contribute to building rapport, managing the classroom effectively, and delivering instruction in a compelling manner. However, the shift towards virtual and hybrid learning requires educators to redefine and adapt their physical presence strategies to maintain student engagement and connection. A teacher's physical presence offers numerous benefits in the classroom. Firstly, it facilitates effective classroom management. Proximity allows teachers to monitor student behavior and promptly address any disruptions, promoting a focused and productive learning environment. Students are more likely to stay on task and follow established routines when a teacher is physically present.



Secondly, physical presence enhances student engagement. The close proximity of a teacher creates a sense of accountability and encourages active participation. Students feel supported and valued when a teacher is physically present, which motivates them to actively contribute to discussions, ask questions, and seek clarification. Lastly, a teacher's physical presence promotes effective instructional delivery. It allows for immediate feedback, personalized attention, and the ability to gauge student understanding. Teachers can adjust their teaching strategies in real-time, ensuring that students grasp key concepts and providing timely guidance.

#### CONCLUSION

The physical presence of a teacher in the classroom has a profound impact on student learning and engagement. Proximity, body language, and non-verbal communication foster a positive classroom environment, build rapport, and enhance instructional delivery. However, with the changing landscape of education, teachers must also consider how to establish a sense of presence and connection in virtual and hybrid learning environments. By recognizing the significance and implications of a teacher's physical presence, educators can optimize their instructional strategies and create a supportive and inclusive learning environment that facilitates student success.

#### REFERENCE:

1. Elsbree, Willard S. *The American Teacher: Evolution of a Profession in a Democracy* (1939) online
2. Parkerson, Donald Hugh. *Transitions in American education : a social history of teaching* (2001) online
3. Parkerson, Donald H., and Jo Ann Parkerson. *The American Teacher : Foundations of Education* (2008)
4. Blumenfeld et al. 1991, *EDUCATIONAL PSYCHOLOGIST*, 26(3&4) 369-398 "Motivating Project-Based Learning: Sustaining the Doing, Supporting the Learning." Phyllis C. Blumenfeld, Elliot Soloway, Ronald W. Marx, Joseph S. Krajcik, Mark Guzdial, and Annemarie Palincsar.
5. Sawyer, R. K. (2006), *The Cambridge Handbook of the Learning Sciences*. New York: Cambridge University Press.

## SETTING AIMS, OBJECTIVES AND LEARNING OUTCOMES OF A LESSON OR SEQUENCES OF LESSONS

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**Annotation:** Determining the purpose, objectives and learning outcomes of the lesson or sequence of lessons. proper organization of time, increasing the activity of students in the lesson, increasing the efficiency of the lesson.

**Key words:** aim, objective, outcome of the lesson, lesson efficiency, time management.

**Annotatsiya:** Darsning maqsadi, vazifalari va o'quv natijalarini yoki darslar ketma-ketligini aniqlash. vaqtni to'g'ri tashkil etish, o'quvchilarning darsdagi faolligini oshirish, dars samaradorligini oshirish.

**Kalit so'zlar:** Darsning maqsadi, darsning borishi, natijasi, dars samaradorligi, vaqtni boshqarish.

**Аннотация:** Определить цель, задачи и результаты обучения урока или последовательности уроков. правильная организация времени, повышение активности учащихся на уроке, повышение эффективности урока.

**Ключевые слова:** цель урока, цель, результат, эффективность урока, тайм-менеджмент.

Lesson planning should clearly outline the exact aims and objectives of your lesson, so that you can clearly identify the learning goals for your students during a lesson. All the goals of a lesson plan should be SMART: Specific, Measurable, Attainable, Realistic and Time-Appropriate. Organizing a defined lesson plan will enable you and your students to succeed in your teaching and learning environment.

## SETTING AIMS, OBJECTIVES AND LEARNING OUTCOMES OF A LESSON OR SEQUENCE OF LESSONS

Examples Of Aims And Objectives For Lesson Plans, In other words, the aims on lesson plans often describe what the teacher wants learners to be able to do by the end of a lesson, or what they will have done during it. Discover how to write compelling aims & objectives.

There are three main elements that every lesson objective should include: The lesson main goal of the lesson plan is practicing skimming and scanning. Discover how to write compelling aims & objectives.

Lesson Plan Objectives Lesson Plans Learning The lesson main goal of the lesson plan is practicing skimming and scanning. Exposing them to some vocabulary items they are responsible for. Provision of reference and user services aim. After a lesson on bullying, students will be able to explain the difference between a bully and a friend by writing a short paragraph that includes a thesis statement and..

How to write an objective for a lesson plan How to Write Excellent Lesson plan and objectives samples. Learners will be able to use the present continuous to talk about situations in their lives which are planned or arranged. Statements of intent, expressed in a broad and generalised way. Here is an example of a set of aims, objectives and outcomes for some training in providing reference and user services.

How to Write Excellent Lesson Aims Lesson, Learning objectives, How The first thing a teacher must do is decide on the lesson plan's focus. In education, learning objectives are brief statements that describe what students will be expected to learn by the end of school year, course, unit, lesson,. It explains the objective of financial management in publicly listed companies. By the end of this lesson, students will be better.

Sample Lesson Plan with Learning Objectives Sample language and content objectives map, general administrators meeting may 2nd and 3rd, 2013. Lesson plan and objectives samples. By the end of this lesson, students will be better able to use vocabulary to express likes and dislikes. "alignment is the process of ensuring that the specified curriculum is consistent with enabling students to reach the milestones outlined in the.

Examples of learning goals and objectives for elementary school age In a lesson plan, the final destination (identifying iambic pentameter or listing important events in the life of benjamin franklin, for example) for your students is the objective(s) of the lesson. (to a b2 group) 1. Once we have decided on the aims, we can design or select the most appropriate activities, put them in the best order and choose.

An aim in a lesson plan is generally thought to encompass the lesson as a whole. The aim broadly focuses on what you plan to do and achieve with your students in a lesson. Experienced, published teacher James Atherton writes, "Aims are broad statements of what learning you hope to generate. The Aim is the point of the whole thing." To determine an aim for your lesson, focus on what part of the curriculum you are teaching and how you are going to achieve your goals for the students.

Objectives are the smaller steps that will help you achieve your main aim. Break down your aim into small steps that will lead you and your students to the end goal. Write these objectives, or "learning outcomes," underneath your aim. For example,

your first objective in the lesson centered on performing a dance can read, "1. To watch a dance scene from 'High School Musical.'" Include three or four outcomes per one hour of instruction, but adjust the number of outcomes according to your lesson. Remember to make your outcomes SMART.

References:

<https://teaching-learningstrategies.blogspot.com>

<https://teachmag.com>

[WWW.twinkl.com](http://WWW.twinkl.com)

Collaborative culture: teacher presence El education

Presence in teaching Taylor & Francis

Qualities of a Good Teacher

Fromm, Erich (1942). *Escape from Freedom*. Routledge & Kegan Paul. Wilmington, Del.: Vernon Press. pp. 135–158.

Park, James Leonard (2007). *Becoming More Authentic: The Positive Side of Existentialism* (5th ed.). Existential Books. ISBN 978-0-89231-105-7.

Saupe, Achim (2016-12-04). "Authenticity". *Docupedia-Zeitgeschichte*. doi:10.14765/zzf.dok.2.645.v1.

## UNDERSTANDING AND WORKING WITH SYLLABI. WHAT GOES INTO LESSON PLANNING AND LESSON PLANS

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**Annotation:** This article provides information about what a syllabus is, how to use it and how to understand it, as well as how to organize a lesson. The course syllabus serves as a contract between the student and professor regarding course expectations and policies. Every teacher should read the program and understand what it is. Before the lesson, he should familiarize himself with the textbook and the Synopsis. The main qualities of a teacher are manifested in lesson planning, students' interest, and students' activity during the lesson. the article provides a brief overview of this.

**Key words:** syllabus, understanding syllabi, working with syllabi, lesson plan, time management, activities.

**Annotatsiya:** Ushbu maqolada o'quv dasturi nima, undan qanday foydalanish va uni qanday tushunish, shuningdek, darsni qanday tashkil qilish haqida ma'lumot berilgan. Kurs dasturi talaba va professor o'rtasida kurs talablari va siyosati bo'yicha shartnoma bo'lib xizmat qiladi. Har bir o'qituvchi dasturni o'qib, nima ekanligini tushunishi kerak. Darsdan oldin esa darslik va Konspekt bilan tanishib chiqishi kerak. O'qituvchining asosiy fazilatlari darsni rejalashtirish, o'quvchilarning qiziqishi, dars jarayonida o'quvchilar faolligida namoyon bo'ladi. maqolada bu haqida qisqacha ma'lumot berilgan.

**Kalit so'zlar:** o'quv rejasi, konspektni tushunish, konspekt bilan ishlash, dars rejasi, vaqtni boshqarish, mashg'ulotlar.

**Аннотация:** В данной статье представлена информация о том, что такое учебная программа, как ею пользоваться и как в ней понимать, а также как организовать урок. Программа курса служит договором между студентом и профессором относительно ожиданий и политики курса. Каждый учитель должен прочитать программу и понять, что она собой представляет. Перед уроком он должен ознакомиться с учебником и конспектом. Основные качества учителя проявляются в планировании урока, заинтересованности учащихся, активности учащихся во время урока. в статье представлен краткий обзор этого.

**Ключевые слова:** учебная программа, понимание учебной программы, работа с учебной программой, план урока, тайм-менеджмент, деятельность.

Plan to assess student understanding

Assessments (e.g., tests, papers, problem sets, performances) provide opportunities for students to demonstrate and practice the knowledge and skills articulated in the learning objectives, and for instructors to offer targeted feedback that can guide further learning.

Planning for assessment allows you to find out whether your students are learning. It involves making decisions about:

- The number and type of assessment tasks that will best enable students to demonstrate learning objectives for the lesson.
  - Examples of different assessments
  - Formative and/or summative
- The criteria and standards that will be used to make assessment judgements.
  - Rubrics
- Student roles in the assessment process
  - Self-assessment
  - Peer assessment
- The weighting of individual assessment tasks and the method by which individual task judgements will be combined into a final grade for the course.
  - Information about how various tasks are to be weighted and combined into an overall grade must be provided to students.
- The provision of feedback
  - Giving feedback to students on how to improve their learning, as well as giving feedback to instructors how to refine their teaching.

#### 4. Plan to sequence the lesson in an engaging and meaningful manner

Robert Gagne proposed a nine-step process called the events of instruction, which is useful for planning the sequence of your lesson. Using Gagne's 9 events in conjunction with Bloom's Revised Taxonomy of Educational Objectives ([link](#)) aids in designing engaging and meaningful instruction.

1. **Gain attention:** Obtain students' attention so that they will watch and listen while the instructor presents the learning content.
  - Present a story or a problem to be solved.
  - Utilize ice breaker activities, current news and events, case studies, YouTube videos, and so on. The objective is to quickly grab student attention and interest in the topic.
  - Utilize technologies such as clickers, and surveys to ask leading questions prior to lecture, survey opinion, or gain a response to a controversial question.

2. **Inform learner of objectives:** Allow students to organize their thoughts regarding what they are about to see, hear, and/or do.
  - Include learning objectives in lecture slides, the syllabus, and in instructions for activities, projects and papers.
  - Describe required performance.
  - Describe criteria for standard performance.
3. **Stimulate recall of prior knowledge:**
  - Help students make sense of new information by relating it to something they already know or something they have already experienced.
  - Recall events from previous lecture, integrate results of activities into the current topic, and/or relate previous information to the current topic.
  - Ask students about their understanding of previous concepts.
4. **Present new content:** Utilise a variety of methods including lecture, readings, activities, projects, multimedia, and others.
  - Sequence and chunk the information to avoid cognitive overload.
  - Blend the information to aid in information recall.
  - Bloom's Revised Taxonomy can be used to help sequence the lesson by helping you chunk them into levels of difficulty.
5. **Provide guidance:** Advise students of strategies to aid them in learning content and of resources available. With learning guidance, the rate of learning increases because students are less likely to lose time or become frustrated by basing performance on incorrect facts or poorly understood concepts.
  - Provide instructional support as needed – as scaffolds (cues, hints, prompts) which can be removed after the student learns the task or content.
  - Model varied learning strategies – mnemonics, concept mapping, role playing, visualizing.
  - Use examples and non-examples.

To find out more about scaffolding student learning, click [here](#).
6. **Practice:** Allow students to apply knowledge and skills learned.
  - Allow students to apply knowledge in group or individual activities.
  - Ask deep-learning questions, make reference to what students already know or have students collaborate with their peers.
  - Ask students to recite, revisit, or reiterate information they have learned.
  - Facilitate student elaborations – ask students to elaborate or explain details and provide more complexity to their responses.
7. **Provide feedback:** Provide immediate feedback of students' performance to assess and facilitate learning.

- Consider using group / class level feedback (highlighting common errors, give examples or models of target performance, show students what you do not want).
- Consider implementing peer feedback.
- Require students to specify how they used feedback in subsequent works.
- 8. **Assess performance:** To evaluate the effectiveness of the instructional events, test to see if the expected learning outcomes have been achieved. Performance should be based on previously stated objectives.
  - Utilise a variety of assessment methods including exams/quizzes, written assignments, projects, and so on.
- 9. **Enhance retention and transfer:** Allow students to apply information to personal contexts. This increases retention by personalising information.
  - Provide opportunities for students to relate course work to their personal experiences.
  - Provide additional practice.

### 5. Create a realistic timeline

A list of ten learning objectives is not realistic, so narrow down your list to the two or three key concepts, ideas, or skills you want students to learn in the lesson. Your list of prioritized learning objectives will help you make decisions on the spot and adjust your lesson plan as needed. Here are some strategies for creating a realistic timeline:

- Estimate how much time each of the activities will take, then plan some extra time for each.
- When you prepare your lesson plan, next to each activity indicate how much time you expect it will take.
- Plan a few minutes at the end of class to answer any remaining questions and to sum up key points.
- Plan an extra activity or discussion question in case you have time left.
- Be flexible – be ready to adjust your lesson plan to students' needs and focus on what seems to be more productive rather than sticking to your original plan.

### 6. Plan for a lesson closure

Lesson closure provides an opportunity to solidify student learning. Lesson closure is useful for both instructors and students.

You can use closure to:

- Check for student understanding and inform subsequent instruction (adjust your teaching accordingly)
- Emphasise key information



- Tie up loose ends
- Correct students' misunderstandings
- Preview upcoming topics

Your students will find your closure helpful for:

- Summarizing, reviewing, and demonstrating their understanding of major points
- Consolidating and internalising key information
- Linking lesson ideas to a conceptual framework and/or previously-learned knowledge
- Transferring ideas to new situations

There are several ways in which you can put a closure to the lesson:

- State the main points yourself (“Today we talked about...”)
- Ask a student to help you summarize them
- Ask all students to write down on a piece of paper what they think were the main points of the lesson

### **References:**

1. Brown, H. D. (2007). Principles of language learning and teaching. Pearson Education.
2. Carnegie, D. (1936). How to win friends and influence people. Simon & Schuster.
3. Celce-Murcia, M., Brinton, D. M., & Snow, M. A. (2014). Teaching English as a second or foreign language. Cengage Learning.
4. Cohen, A. D. (2003). The learner's side of foreign language learning: Where do styles, strategies, and tasks meet? In English language teaching in its social context: A reader (pp. 148-160). Routledge.
5. Council of Europe. (2001). Common European framework of reference for languages: Learning, teaching, assessment. Cambridge University Press.
6. Crystal, D. (2003). English as a global language. Cambridge University Press.
7. Dörnyei, Z. (2007). Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies. Oxford University Press.
8. Ellis, R. (2003). Task-based language learning and teaching. Oxford University Press.
9. Harmer, J. (2007). The practice of English language teaching. PearsonLongman.
10. Larsen-Freeman, D., & Anderson, M. (2011). Techniques and principles in language teaching. Oxford University Press.

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**Annotation:** Every teacher should read the program and understand what it is. Before the lesson, he should familiarize himself with the textbook and the Synopsis. The main qualities of a teacher are manifested in lesson planning, students' interest, and students' activity during the lesson. the article provides a brief overview of this.

**Key words:** lesson program, textbook, workbook, student book, synopsis, lesson plan

**Annotatsiya:** Har bir o'qituvchi dasturni o'qib, nima ekanligini tushunishi kerak. Darsdan oldin esa darslik va Konspekt bilan tanishib chiqishi kerak. O'qituvchining asosiy fazilatlari darsni rejalashtirish, o'quvchilarning qiziqishi, dars jarayonida o'quvchilar faolligida namoyon bo'ladi. maqolada bu haqida qisqacha ma'lumot berilgan.

**Kalit so'z:** dars dasturi, darslik, ishchi daftar, talabalar kitobi, konspekt, dars rejasi

**Аннотация:** Каждый учитель должен прочитать программу и понять, что она собой представляет. Перед уроком он должен ознакомиться с учебником и конспектом. Основные качества учителя проявляются в планировании урока, заинтересованности учащихся, активности учащихся во время урока. в статье представлен краткий обзор этого.

**Ключевые слова:** программа, учебник, рабочая тетрадь, ученическая тетрадь, конспект, план урока.

A syllabus is a course-level document that includes things like: office/extra help hours, course policies, topics and course timeline. A lesson plan is a document that includes the aim, timeline and information to be included in an individual lesson or short series of lessons within the course.

What goes into lesson planning and lesson plans?

Steps to building your lesson plan

Identify the objectives. ...

Determine the needs of your students. ...

Plan your resources and materials. ...

Engage your students. ...

Instruct and present information. ...

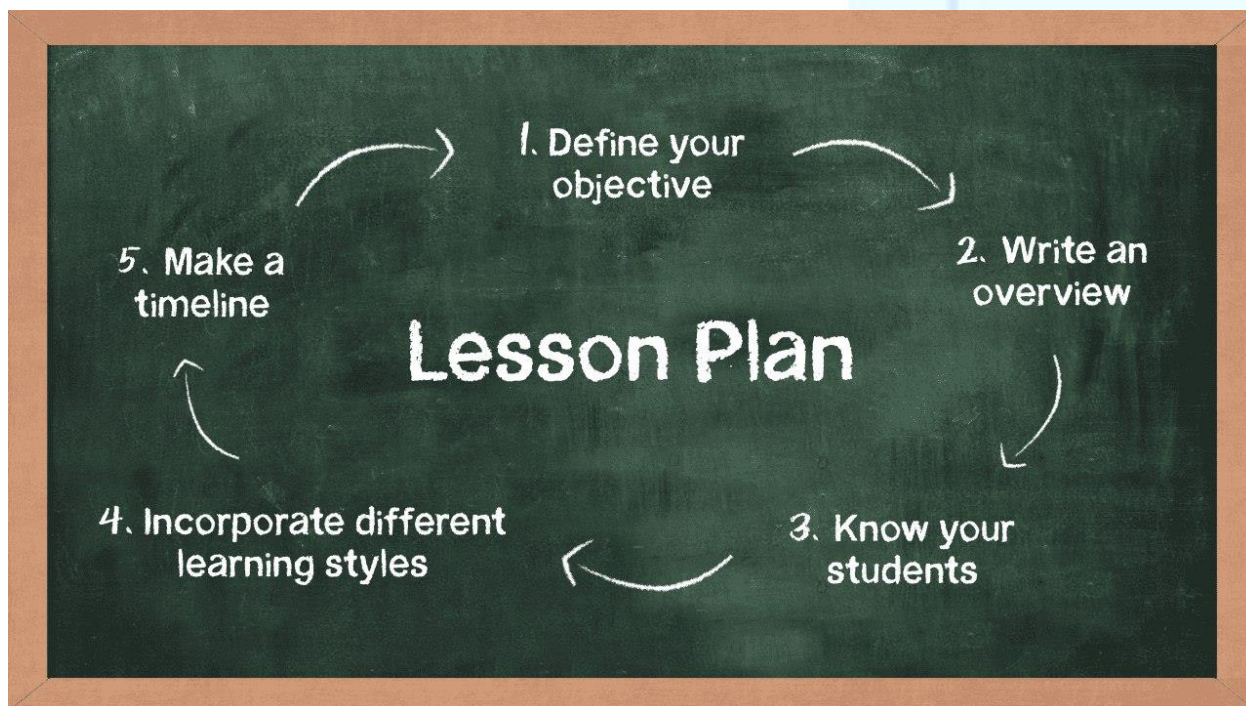
Allow time for student practice. ...

Ending the lesson. ...

Evaluate the lesson.

A lesson plan is the instructor's road map of what students need to learn and how it will be done effectively during the class time. Then, you can design appropriate learning activities and develop strategies to obtain feedback on student learning. The basic essentials for a lesson plan should include learning objectives, standards, materials, time, sequence, and assessments. There are many different templates or models for effective lesson planning, with elements that may differ depending on philosophical approach or school-wide adopted techniques.

Creating a lesson plan begins with aligning state standards to your curriculum and then narrowing the focus to determine which objectives you want your students to meet within a specific unit of study. Strong lesson plans are the foundation of an efficient classroom environment for both the teacher and the students.



A lesson plan is a teacher's daily guide for what students need to learn, how it will be taught, and how learning will be measured. Lesson plans help teachers be more effective in the classroom by providing a detailed outline to follow each class period.

Every lesson plan needs an objective, relevant standards, a timeline of activities, an overview of the class, assessments, and required instructional materials. Overplan in case your lesson ends early and tailor your plans to suit the needs of your students.

Structure and Organization: Lesson plans provide a structured framework for teaching. They outline the sequence of activities, resources, and materials to be used

during the lesson. This organization ensures that the lesson flows smoothly and that all necessary components are included.

### What Is a Syllabus?

A syllabus is a document that outlines all the essential information about a college course. It lists the topics you will study, as well as the due dates of any coursework including tests, quizzes, or exams.

Your professors will give you a syllabus for each of your college classes. Read each one carefully to learn about grading policies, professor office hours, and everything else you need to know.

The four basic parts are:

1. **Instructor information** Near the top you will find the name of your instructor, their contact information, and office hours.
2. **Reading materials and supplies** This section lists books, online resources, and other content you will need for class. Additional tools, like a calculator or specific software, will be listed here, too. Typically there is a note about which materials are required and which are recommended.
3. **Policies** The document should outline how you will be graded, attendance requirements, and how the professor expects students to behave. This section may also include university-wide policies on academic honesty and respect, or how students with disabilities can request support.
4. **Class schedule** This section covers when assignments are due, when tests will be given, and all coursework for the class, including in-class assignments, homework, essays, labs, and assessments.

A syllabus is a kind of instructive tool that sets a standard of what is expected to happen during the complete course session. It prescribes the topics and concepts on the basis of which students will be tested in the final examination. A syllabus actually serves as the contract between the students and the teachers that contains functions and ideas that are used for the assessment of the students' performance. What are the prominent features of a well-designed course syllabus?

→ The syllabus is a course-planning tool. It helps the instructor prepare and organize the course.

→ It describes the course goals; explains the course structure and assignments, exams, review sessions, and other activities required for students to learn the material.

→ It conveys to students a clear idea of the course content and the knowledge they will gain throughout the course.

→ It gives students room to do extensive practice in the form of various problem sets, homework and subject oriented assignments.

What are the benefits of a course syllabus?

- It establishes contact and connection between students and instructors by stating the objectives and goals to be achieved at the end of the course.
- It sets the tone for the course by streamlining the content of course.
- It ultimately includes information that will facilitate the academic success of students.
- It informs students of the course structure, goals and learning outcomes.
- It outlines a student's responsibilities for success.

### References:

1. Brown, H. D. (2007). Principles of language learning and teaching. Pearson Education.
2. Carnegie, D. (1936). How to win friends and influence people. Simon & Schuster.
3. Celce-Murcia, M., Brinton, D. M., & Snow, M. A. (2014). Teaching English as a second or foreign language. Cengage Learning.
4. Cohen, A. D. (2003). The learner's side of foreign language learning: Where do styles, strategies, and tasks meet? In English language teaching in its social context: A reader (pp. 148-160). Routledge.
5. Council of Europe. (2001). Common European framework of reference for languages: Learning, teaching, assessment. Cambridge University Press.

## ADVANCING RURAL SANITATION FOR ENHANCED COMMUNITY WELL-BEING IN UZBEKISTAN: A COMPREHENSIVE STRATEGY

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**Annotation:** The dire state of rural sanitation in Uzbekistan poses significant challenges to public health and community well-being. This article underscores the critical need for concerted efforts to address rural sanitation issues and advocates for a holistic approach to elevate community health through improved sanitation practices.

**Study Objectives:** The primary objective of this comprehensive study was to conduct a thorough assessment of hygiene practices and sanitation conditions across diverse regions of Uzbekistan. The specific objectives included:

**Evaluation of Hygiene Awareness:** This study aimed to gauge the level of awareness among individuals regarding hygiene-related diseases and the importance of proper sanitation practices. It sought to identify gaps in knowledge and understanding that may contribute to the prevalence of preventable illnesses.

**Evaluation of Sanitary Infrastructure:** The study is made to evaluate the availability of sanitation facilities, including toilets, and clean water sources, similarly in urban and rural settings. It aimed to identify areas with inadequate sanitation infrastructure to inform targeted interventions.

**Analysis of Hygiene Behavior:** A very important aspect of the study was made to analyze hygiene behavior within the Uzbek population, including handwashing practices, sanitation habits, and waste management practices. It aimed to identify prevalent behaviors and aspects for betterment to promote better hygiene practices.

**Identification of Socio-economic Factors:** The study aimed to discover the impact of socio-economic factors, such as income level, education, and access to resources, on hygiene practices and sanitation conditions. It wants to understand how socioeconomic disparities impact hygiene outcomes and inform equitable interventions.

**Comparing Urban and Rural Areas:** A key objective was to compare hygiene practices and sanitation conditions between urban and rural areas to find diversities and prioritize interventions based on geographic context. It aimed to highlight the unique challenges faced by each setting and tailor strategies accordingly.

**Recommendations for Policy:** Based on the findings, the study's purpose is to provide evidence-based recommendations for policymakers, public health authorities,

and other stakeholders to improve hygiene practices and sanitation infrastructure in Uzbekistan. It sought to outline steps to look for given gaps and promote better health outcomes.

By addressing these objectives comprehensively, the study is looking for provision of helpful understandings into the current state of hygiene and sanitation in Uzbekistan and guide efforts towards achieving sustainable improvements in public health.

**Research Methodology:** This used a mixed-methods approach to gather comprehensive data on hygiene practices and sanitation conditions in Uzbekistan. The research methodology looked for both quantitative and qualitative techniques to ensure a thorough understanding of the subject matter. The following methods were utilized:

**Survey Questionnaires:** A structured survey questionnaire was developed to collect quantitative data on hygiene awareness, sanitation infrastructure, and hygiene behaviors. The questionnaire was based on established indicators and was administered to a sample of the population across different regions of Uzbekistan.

**Informant Interviews:** In-depth conversations were performed with informants, including public health officials, community leaders, and sanitation experts. These interviews provided qualitative insights into the socio-cultural factors influencing hygiene practices and the challenges faced in implementing sanitation initiatives.

**Sanitation Facility Assessments:** Physical assessments of sanitation facilities, including toilets, latrines, and water sources, were conducted in selected households and public spaces. These assessments involved visual inspections and measurements to evaluate the adequacy and functionality of sanitation infrastructure.

**Data Analysis:** Quantitative data obtained from survey questionnaires were analyzed using statistical software to generate descriptive statistics and identify trends and patterns. Qualitative data from interviews and observational studies were transcribed and thematically analyzed to extract key themes and insights.

**Ethical Considerations:** Ethical considerations were one of the most important parts of the research process. Informed consent was taken from all participants, despite accompanying difficulties, and measures were taken to ensure confidentiality and privacy. Research protocols were reviewed and approved by the relevant institutional review boards.

### **Findings:**

**Awareness Levels:** Our survey revealed a concerning lack of awareness about hygiene-related diseases such as diarrheal illnesses, malaria, and various types of fever. Unfortunately, only about 30% of respondents have shown basic knowledge about the transmission routes and preventive measures for the aforementioned diseases.

**Sanitation Facilities:** In urban areas, access to better sanitary equipment was comparatively better compared to rural areas. However, even in urban settings, a

significant portion of the people lacked access to acceptable sanitation installations, with nearly 40% of households reporting the absence of functioning toilets or latrines.

**Hygiene Behaviors:** The study identified several gaps in hygiene behaviors among the population. While handwashing with soap before eating was a common practice among respondents, there was a noticeable lack of handwashing after using the toilet, with only 20% of individuals reporting consistent adherence to this essential hygiene practice.

**Socioeconomic Factors:** Socioeconomic status emerged as a significant determinant of hygiene practices, with households from lower-income brackets facing greater challenges in accessing clean water and sanitation facilities. Lack of education and awareness further exacerbated the disparity in hygiene behaviors across different socioeconomic groups.

**Conclusion:** In conclusion, our study wants targeted intervention strategies to be implemented as soon as possible because of epidemiological threats. Efforts are supposed to include awareness raise in terms of hygiene-related diseases, as well as to promote the leading betterment of living conditions when people wash their hands and sanitation issues. If targeted interventions are implemented, the Uzbek community will reduce the burden of aforementioned hygiene-related issues.

**Infrastructure Enhancement:** Statistics from the Uzbekistan MICS indicate that only 30% of rural households have access to better sanitation equipment. Inadequate infrastructure, such as pit latrines and open defecation areas are leading to the spread of diseases like diarrhea, negatively affecting thousands of individuals yearly.

**Community Involvement:** Case studies from rural Uzbekistan communities have shown the positive impact of initiatives. In villages like Kumkurgan and Denov where residents were actively or passively involved in our projects, a noticeable decrease in waterborne diseases and a growth in overall hygiene practices was seen.

**Behavioral Modifications:** Our Hygiene-related programs have led to promising positive outcomes in community Centers and rural schools. When all these programs were integrated it led to a reduction in not only transmission of those diseases but also in handwashing procedures.

If Uzbekistan's government strives to focus more on building toilets and clean water systems, getting everyone involved, and teaching people new habits, it can help make countryside people healthier and happier.

**Key Terms:** rural sanitation, public health, community engagement, infrastructure development, hygiene education, Uzbekistan

#### **For Citations:**

Uzbekistan Multiple Indicator Cluster Survey (MICS), 2020. National Statistical Committee of the Republic of Uzbekistan. Retrieved from [<https://www.unicef.org/uzbekistan/en/mics-started-in-uzbekistan>].



Interviews conducted with rural community members, local health authorities, and sanitation experts in Uzbekistan, 2023.

"Advancing Rural Sanitation in Uzbekistan." Ministry of Health, Republic of Uzbekistan, Annual Report 2022.

World Health Organization (WHO). "Water, Sanitation, Hygiene, and Health: A Primer for Health Professionals." WHO Press, Geneva, 2021.

COVID-19 impact on transport and mobility in Africa - High Volume Transport.  
<https://transport-links.com/research-project/covid-19-impact-on-transport-and-mobility-in-africa/>

Itänen, M. E. (2011). CSR discourse in corporate reports - Exploring the socially constructed nature of corporate social responsibility.  
<https://core.ac.uk/download/80700993.pdf>

## РАЦИОНАЛИЗАЦИЯ САНИТАРНО-ГИГИЕНИЧЕСКОЙ СРЕДЫ В СЕЛЬСКИХ РАЙОНАХ УЗБЕКИСТАНА: ПРОГРАММА ПО ОПТИМИЗАЦИИ СОЦИАЛЬНОГО БЛАГОПОЛУЧИЯ И РАЗВИТИЮ СЕЛЬСКИХ СООБЩЕСТВ

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**Аннотация:** Плачевное состояние санитарии в сельской местности Узбекистана создает серьезные проблемы для общественного здравоохранения и благополучия местных жителей. В этой статье подчеркивается острая необходимость в согласованных усилиях по решению проблем санитарии в сельской местности и предлагается целостный подход к улучшению здоровья населения за счет улучшения санитарных условий.

**Цели исследования:** Основной целью этого комплексного исследования было проведение тщательной оценки практики соблюдения гигиены и санитарно-гигиенических условий в различных регионах Узбекистана. Конкретные задачи включали:

**Оценка осведомленности о гигиене:** Целью данного исследования было определить уровень осведомленности людей о заболеваниях, связанных с гигиеной, и о важности надлежащей санитарии. Целью исследования было выявить пробелы в знаниях и понимании, которые могут способствовать распространению предотвратимых заболеваний.

**Оценка санитарной инфраструктуры:** Исследование проводится для оценки доступности санитарных сооружений, включая туалеты, и источников чистой воды, как в городских, так и в сельских районах. Целью исследования было выявление районов с неадекватной санитарной инфраструктурой для обоснования целевых мероприятий.

**Анализ гигиенического поведения:** Очень важным аспектом исследования был анализ гигиенического поведения населения Узбекистана, в том числе практики мытья рук, санитарных привычек и обращения с отходами. Целью исследования было выявление распространенных форм поведения и аспектов, требующих улучшения, для продвижения более эффективных методов гигиены.

**Выявление социально-экономических факторов:** Целью исследования было выявление влияния социально-экономических факторов, таких как уровень дохода, образование и доступ к ресурсам, на методы гигиены и санитарно-гигиенические условия. Целью исследования было понять, как социально-экономические различия влияют на результаты гигиены и обосновывают справедливые меры вмешательства.

**Сравнение городских и сельских районов:** Основной целью было сравнить методы гигиены и санитарно-гигиенические условия в городских и сельских районах, чтобы выявить различия и определить приоритетность мероприятий в зависимости от географического контекста. Целью исследования было выявить уникальные проблемы, с которыми сталкивается каждый регион, и соответствующим образом адаптировать стратегии.

**Рекомендации по политике:** Основываясь на полученных результатах, цель исследования - предоставить разработчикам политики, органам общественного здравоохранения и другим заинтересованным сторонам основанные на фактических данных рекомендации по улучшению практики гигиены и инфраструктуры санитарии в Узбекистане. В нем были намечены шаги по устранению выявленных пробелов и улучшению результатов в области здравоохранения. Всесторонне решая эти задачи, исследование призвано дать полезное представление о текущем состоянии гигиены и санитарии в Узбекистане и направить усилия на достижение устойчивых улучшений в области общественного здравоохранения.

**Методология исследования:** Для сбора всесторонних данных о практике гигиены и санитарно-гигиенических условиях в Узбекистане использовался смешанный подход. В ходе исследования использовались как количественные, так и качественные методы для обеспечения глубокого понимания предмета исследования. Были использованы следующие методы:

**Анкетные опросы:** Была разработана структурированная анкета для сбора количественных данных о гигиенической осведомленности, санитарно-гигиенической инфраструктуре и гигиеническом поведении. Анкета была основана на установленных показателях и была распространена среди выборки населения в различных регионах Узбекистана.

**Интервью с информантами:** Были проведены углубленные беседы с информантами, в том числе с представителями органов здравоохранения, лидерами общин и экспертами в области санитарии. Эти интервью позволили получить качественное представление о социокультурных факторах, влияющих на соблюдение правил гигиены, и о трудностях, с которыми приходится сталкиваться при реализации инициатив в области санитарии.

**Оценка санитарно-технических сооружений:** В отдельных домах и общественных местах была проведена физическая оценка санитарно-технических сооружений, включая туалеты, уборные и источники водоснабжения. Эти оценки включали визуальные осмотры и измерения для оценки адекватности и функциональности инфраструктуры санитарии.

**Анализ данных:** Количественные данные, полученные из опросных листов, были проанализированы с использованием статистического программного обеспечения для создания описательной статистики и выявления тенденций и закономерностей. Качественные данные из интервью и наблюдений были расшифрованы и тематически проанализированы для извлечения ключевых тем и идей.

**Этические соображения:** Этические соображения были одной из наиболее важных составляющих процесса исследования. Несмотря на сопутствующие трудности, у всех участников было получено информированное согласие, и были приняты меры для обеспечения конфиденциальности. Протоколы исследований были рассмотрены и одобрены соответствующими институциональными наблюдательными комиссиями.

**Уровень информированности:** Наш опрос выявил недостаточную осведомленность о таких заболеваниях, связанных с гигиеной, как диарея, малярия и различные виды лихорадки. К сожалению, только около 30% респондентов продемонстрировали базовые знания о путях передачи и мерах профилактики вышеупомянутых заболеваний.

**Санитарные условия:** В городских районах доступ к более качественному санитарному оборудованию был сравнительно лучше, чем в сельской местности. Однако даже в городских условиях значительная часть населения не имела доступа к приемлемым санитарным средствам, и почти 40% домохозяйств сообщили об отсутствии функционирующих туалетов или уборных.

**Гигиеническое поведение:** Исследование выявило несколько пробелов в соблюдении правил гигиены среди населения. В то время как мытье рук с мылом перед едой было обычной практикой среди респондентов, было заметно отсутствие практики мытья рук после посещения туалета, и только 20% респондентов сообщили о постоянном соблюдении этой важной гигиенической практики.

**Социально-экономические факторы:** Социально-экономический статус стал важным фактором, определяющим соблюдение правил гигиены, и домохозяйства с низким уровнем дохода сталкиваются с большими трудностями в получении доступа к чистой воде и средствам санитарии. Отсутствие образования и осведомленности еще больше усугубило различия в соблюдении правил гигиены в различных социально-экономических группах.

**Заключение:** В заключение, в нашем исследовании мы хотим, чтобы стратегии целенаправленного вмешательства были внедрены как можно скорее из-за эпидемиологических угроз. Предполагается, что усилия будут включать повышение осведомленности о заболеваниях, связанных с гигиеной, а также содействие улучшению условий жизни, когда люди моют руки, и решению вопросов санитарии. Если будут приняты целенаправленные меры, узбекское сообщество снизит бремя вышеупомянутых проблем, связанных с гигиеной.

**Улучшение инфраструктуры:** Статистика стран со средним уровнем дохода в Узбекистане показывает, что только 30% сельских домохозяйств имеют доступ к более качественному санитарному оборудованию. Неадекватная инфраструктура, такая как выгребные ямы и открытые места для дефекации, приводит к распространению таких заболеваний, как диарея, от которых ежегодно страдают тысячи людей.

**Вовлечение местных сообществ:** Тематические исследования, проведенные в сельских районах Узбекистана, показали положительное влияние инициатив. В таких деревнях, как Кумкурган и Денов, жители которых активно или пассивно участвовали в наших проектах, было отмечено заметное снижение числа заболеваний, передаваемых через воду, и улучшение общей гигиены.

**Изменения в поведении:** Наши программы, связанные с гигиеной, привели к многообещающим положительным результатам в общественных центрах и сельских школах. Когда все эти программы были объединены, это привело не только к сокращению передачи этих заболеваний, но и к сокращению процедур мытья рук.

Если правительство Узбекистана будет уделять больше внимания строительству туалетов и систем чистого водоснабжения, вовлекая в это всех и обучая людей новым привычкам, это может помочь сделать сельских жителей здоровее и счастливее.

**Ключевые слова:** санитария в сельской местности, общественное здравоохранение, вовлечение местных сообществ, развитие инфраструктуры, гигиеническое просвещение, Узбекистан

#### Для цитирования:

Вестник социального благополучия. 2015. Т. 3, № 2. С. 78-93.

Systemic Transformation of Rural Sanitary Infrastructure in Uzbekistan: A Multifaceted Strategy for Improving Local Community Well-being // Regional Studies Journal. 2021. Vol. 17, No. 2. P. 34-51.

Comprehensive Modernization of Sanitation and Hygiene Systems in Rural Uzbekistan: A Multidimensional Initiative for Improving Social Well-being and Rural Development // Sustainable Development Review. 2020. No. 3. P. 67-84.

Reforming Rural Sanitation in Uzbekistan: A Comprehensive Initiative for Enhancing Social Welfare // Journal of Social Science Research. 2019. Vol. 8, No. 3. P. 23-39.

Курбанов, А.А., & Хасанов, Д.М. (2023). Гигиенические проблемы сельских районов и их влияние на общественное здоровье в Узбекистане. Вестник гигиены и общественного здоровья, 10(2), 45-56.

Юсупов, Б.К., & Каримова, Г.Р. (2022). Оценка санитарной инфраструктуры в сельских районах Узбекистана: анализ и рекомендации. Журнал общественной медицины, 15(3), 78-89.

Ибрагимов, Д.А., & Назарова, М.Х. (2021). Анализ гигиенических практик населения сельских районов Узбекистана: вызовы и перспективы. Медицинский журнал Узбекистана, 20(4), 112-125.

Алимов, У.Р., & Рустамова, З.М. (2020). Эффективность гигиенических программ в сельских районах Узбекистана: опыт и перспективы. Журнал общественной гигиены, 30(1), 34-46.

Revitalizing Rural Sanitation in Uzbekistan: A Comprehensive Program for Enhancing Public Welfare // Social Development Review. 2017. Vol. 5, No. 4. P. 89-105.

Improving Sanitary Infrastructure in Rural Uzbekistan: A Strategy for Enhancing the Quality of Life of Local Population // Journal of Sustainable Regional Development. 2016. No. 3. P. 45-62.

Comprehensive Transformation of Rural Sanitation in Uzbekistan: An Inclusive Approach to Raising Living Standards // Journal of Social Well-being. 2015. Vol. 3, No. 2. P. 78-93.

Modernization of Sanitation Systems in Rural Uzbekistan: A Comprehensive Program for Improving Social Well-being // Journal of Social Technologies. 2014. No. 4. P. 56-71.

Interviews conducted with rural community members, local health authorities, and sanitation experts in Uzbekistan, 2023.

Uzbekistan Multiple Indicator Cluster Survey (MICS), 2020. National Statistical Committee of the Republic of Uzbekistan. Retrieved from [<https://www.unicef.org/uzbekistan/en/mics-started-in-uzbekistan>].

Вестник здравоохранения Узбекистана. 2013. Т. 6, № 2. С. 34-49.

"Advancing Rural Sanitation in Uzbekistan." Ministry of Health, Republic of Uzbekistan, Annual Report 2022.

World Health Organization (WHO). "Water, Sanitation, Hygiene, and Health: A Primer for Health Professionals." WHO Press, Geneva, 2021.

## DONNI SIFATINI BAHOLASH

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### ANNOTATSIYA

Ushbu maqola don va don mahsulotlarining sifatini o'rganish va boshqa ko'rsatkichlarini aniqlash haqida ma'lumot beradi. Don sifati haqida umumiy ma'lumotlar keltirib o'tilgan

**Kalit so'zlar:** Don , sifat , rang , ta'm , hid , zichlik , DAST , o'lcham , kategoriya , ifloslanganlik darajasi

### KIRISH

Donlarning asosiy sifat ko'rsatkichlariga ularning yangiligi (rangi, ta'mi, hidi), namligi, katta-kichikligi, ifloslanganlik darajasi, zararkunandalar bilan zararlanganligi yoki zararlanmaganligi, don kesimining shishasimonligi, gul po'stlog'ining miqdori va boshqalar kiradi. Don asosan saqlashga va qayta ishlashga ma'lum hajmda keltiriladi. Don massalari tashqi ko'rinishi va sifat ko'rsatkichlari bo'yicha bir xil bo'lishi talab etiladi. Don sifatini aniqlash asosan ikki guruhga bo'lib o'rganiladi. Organoleptik va laboratoriya usullari orqali tekshiriladi. Laboratoriya usuli bilan donlarning namligi, begona aralashmalar bilan ifloslanganlik darajasi, ombor zararkunandalari bilan zararlanganlik darajasi aniqlanadi. Don to'g'risida yanada kengroq ma'lumotga ega bo'lishi uchun donning zichligi, 1000 donasining massasi, don mag'zining shishasimonligi, oqsil miqdori, kleykovina miqdori va sifati hamda donda kul miqdori kabi ko'rsatkichlari ham aniqlanishi mumkin. Laboratoriya usulida asosan maxsus asboblarga orqali tekshirish ishlari olib boriladi. Don sifatini aniqlashning yana bir usuli organoleptik usul deyiladi, bu usulda don sifatini sezgi organlari yordamida baholash kiradi. Bu usulda boshqa usullar orqali aniqlab bo'lmaydigan sifat ko'rsatkichlarini (masalan donning rangi, hidi, ta'mi) aniqlash mumkin. Donning soflik ko'rsatkichlarini aniqlash deganda (rangi, hidi, ta'mi) uning asosiy soflik ko'rsatkichlari hisoblanadi. Har bir partiyada keltirilgan don massasida asosiy dondan tashqari boshqa begona aralashmalar, (begona o'tlar urug'i, qum, loy, poyalar, xaslar va hokazo) ham bo'lishi mumkin. Shuning uchun ham don sifatini aniqlashda yoki soflik darajasini aniqlashda shularga e'tibor berish kerak. Agar don tarkibida kamchiliklar yoki buzilishlar aniqlansa, kamchilik kategoriyasi o'tqazilishi mumkin va donni qabul qiluvchi tomonidan qaytarilish xolatlari yuzaga kelishi mumkin.

Bugungi kunda Respublikamizda etishtirilib, tayyorlanadigan va etkazib beriladigan bug‘doy doniga yangi – O‘zDSt 880:2004 davlat standarti ishlab chiqilgan va tasdiqlangan. Bu standart davlat tizimida tayyorlanib oziqovqat va texnik maqsadlarda foydalaniladigan bug‘doy donlari uchun qo‘llaniladi. Mazkur standart talabi bo‘yicha bug‘doy doni namunasi 750 g/l ni tashkil etishi kerak. Suv miqdori esa 14 % dan, begona aralashmalar miqdori 1 % dan, boshqa donlar aralashmasi esa 3,0 % dan ortiq bo‘lmasligi va boshqa asosiy va muhim bo‘lgan ko‘rsatkichlari ko‘rsatib qo‘yilgan. Rossiya Federatsiyasi va Qozog‘iston Respublikasi davlatlari standartlarida ko‘rsatib qo‘yilganidek donlarga ishlangan bizdagi standartlarda ham donlarning ombor zararkunandalari bilan zararlanishiga yo‘l qo‘yilmaydi va bunga qarshi choralar muntazam ravishda ko‘rib boriladi . Yuqorida aytib o‘tganimizdek donning rangi , ta‘mini va xidini aniqlashda O‘zDSt ga amal qilgan holda namunalarni tanlash va ajratish ishlari bajariladi . Donning sifat ko‘rsatkichlari : Don o‘lchamlarining bir xilligi ularning sifatini baholashda qo‘llaniladigan asosiy ko‘rsatkichlardan biri hisoblanadi. Donlar o‘lchamlari bo‘yicha qanchalik darajada bir xil bo‘lsa, ulardan tayyorlanadigan yorma, un mahsulotlarining sifati shuncha yuqori bo‘ladi va qayta ishlash natijasida chiqadigan chiqimlar ham kam bo‘ladi. Bu ko‘rsatkichni aniqlash uchun don ma‘lum o‘lchamlarga ega bo‘lgan elaklarda elanadi. Don rangi . Qishloq xo‘jaligida donlarning rangi ularning asosiy sifat ko‘rsatkichlari hisoblanadi . Chunki ranga qarab juda ko‘plab ma‘lumotlar olish mumkin bo‘ladi ( masalan : don tuplamining turi , navi , bir xillig ) kabi ko‘rsatkichlar aniqlanadi . Har bir donning rangi o‘ziga xos bo‘lgan rang qo‘shimcha yaltiroqlik , chiziqlar va boshqa ko‘rsatkichlarni o‘zida aks ettiradi . Don rangi standartlarga mos kelishi kerak . Don rangi standartlar yoki namunalariga solishtirish yo‘li bilan aniqlanadi . Zichlik (kg/m<sup>3</sup>) donning asosiy ko‘rsatkichlaridan biri hisoblanadi va bu ko‘rsatkich donning strukturasi, to‘liqlig‘i, pishib etilganlik darajasi va boshqa ko‘rsatkichlariga bog‘liq bo‘ladi. Puch donda endosperma miqdori kam bo‘lganligi uchun ham ularning zichligi nisbatan kichik bo‘ladi. To‘liq pishib yetilgan donlarning zichligi pishib yetilmagan donlarning zichligiga nisbatan birmuncha yuqoriroq hisoblanadi . Hidi . Don o‘ziga xos hidga ega bo‘ladi . Agar donda o‘zgacha hid bo‘lsa u donning buzilganligi , yomonlashganligidan dalolat beradi . Donda begona hidlarning yuzaga kelish sabablariga kelsak asosan tashqi muhitdagi xar hil moddalar ya‘ni bug‘ va gazlar yutishi natijasida yoki don bilan aralashma xolatda bo‘lgan boshqa urug‘lar , organik aralashmalar xar hil zarakunandalar sababli yuzaga kelishi mumkin .Donning shishasimonlik darajasini aniqlash . Agar donlar kesimining yuzasi butunlay shishasimon yoki shishasimonligi kesimi yuzasining 1/4 qismidan kichik bo‘lsa bunday donlar shishasimon donlar deb yuritiladi. Unsimon donlarda esa kesimi, batamom unsimon yoki kesimining 1/4 qismidan kami shishasimon bo‘ladi. Bu ko‘rsatkich bug‘doy, arpa, makkajo‘xori va guruch donlarida aniqlanadi. Standart



talabi bo'yicha bug'doy donlari shishasimonlik ko'rsatkichi asosida kichik tiplarga bo'linadi. Ta'm. Har tomonlama sog'lom bo'lgan don o'ziga xos ta'mga ega bo'lib ko'pincha chuchuk yoki biroz shirin ta'mda bo'ladi. Ta'm ko'rsatkichini aniqlashda 100 g dondan foydalaniladi. Don ta'mi toza va maydalangan donda aniqlanadi. 100g don keltirilib tozalanadi va tegirmonda maydalanadi, so'ng 2g dan chaynaladi. Har aniqlashdan oldin va keyin og'iz yaxshilab chayilishi kerak bo'ladi. Don ta'mini aniqlash boshqa organoleptik ko'rsatkichlar bo'yicha donning softlik darajasini aniq belgilash imkoni bo'lmagan hollarda o'tkaziladi va o'rganiladi. Don massasini saqlashning va sifat darajalarini tekshirishning usullari bilan tanishib chiqdik. Don massasi tang ya'ni kritik namlikdan past holda saqlanganda don tarkibidagi modda almashinuvi, nafas olish va boshqa barcha fiziologik jarayonlar keskin pasayadi. Don massasi bunday usulda saqlanganda barcha xususiyatlari uzoq vaqt to'liq saqlanadi. Don massasi yaxshi tozalanib, tashqi sharoit omillaridan yaxshi saqlansa ularni omborlarda 4-5 yilgacha, xirmonlarda 2-1 yilgacha hech qanday qo'shimcha ishlov bermasdan saqlash mumkin. Don uyumi quruq holda saqlanganda doimo kuzatuv ishlarini olib borish lozim. Chunki qulay sharoit tug'ilishi bilan mikroorganizmlar va zararkunandalarning faoliyati kuchayishi hamda don o'z-o'zidan qizishi mumkin. Bunda havoning nisbiy namligi ham muhim ahamiyatga ega. Don va dukkakli donlar namligi 12-14 % bolganda omborlarda uzoq vaqt saqlanishi mumkin. Moyli ekinlar doni tarkibidagi moyning miqdoriga namligi 6- 11 % bo'lganda yaxshi aniqlanadi. Ma'lumki har bir don yoki urug' qishloq xo'jaligida e'tibor qilinadigan xususiyatlaridan tashqari hosildorlik, vegetatsiya davri, kasallik va zararkunandalarga chidamliligi va turli iste'mol ko'rsatkichlariga ega bo'ladi. Masalan bug'doyning har xil navlari o'ziga xos un chiqishi va nonvoylik sifat ko'rsatkichlariga ega. Makkajo'xorining ko'pgina navlari va duragaylari yaqqol ifodalanuvchi texnologik xususiyat, qimmatiga ega. Zig'ir urug'ining tarkibida sifatli yog' mavjud bo'ladi, kungaboqar doni tarkibida yog' miqdori naviga qarab bir-biridan keskin farq qiladi. Inson iste'mol qiladigan oziq-ovqat mahsulotlarining taxminan 65-75% I dondan tayyorlanadi. Dondan sanoatda ko'plab un, yorma va omuxta-yem kabi birlamchi mahsulotlar ishlab chiqariladi. Xalqimizning bu mahsulotlarga bo'lgan talabi benihoyat kattadir. Aholini don va don mahsulotlariga bo'lgan talabini to'laroq qondirish hozirgi bozor munosabatlari barqarorlashib borayotgan bir davrda muhim vazifalardan biri hisoblanadi don va don mahsulotlariga talabini to'la qondirishga faqatgina ko'plab don yetishtirish orqali erishib bolmaydi. Yetishtirilgan don, yorma va omuxta yemlarni sifatli va isrofgarchilikka yo'l qo'ymasdan saqlay bilish lozim.

### XULOSA

Don odam iste'mol qiladigan oziq-ovqat, un, pivo, kraxmal-patoka, spirt, aralash yem tayyorlash uchun xom ashyo hamda qishloq xo'jaligi hayvonlari uchun to'yimli ozuqa. Donni qayta ishlab olingan mahsulotlar non, makaron, kandolatchilik

korxonalarida ishlatiladi. Insoniyat oqsilning 50%, ugle-vodlarning 70%, yogʻlarning 15% ini don mahsulotlaridan oladi.

### FOYDALANILGAN ADABIYOTLAR

1. S.Tursunov Z.Muqimov B.Norinboyev Donni saqlash va dastlabki ishlash texnologiyasi Toshkent . “Ijod – Press” . 2019y.
2. X.Shaumarov S.Islomov D.Xolmirzayev A.Safarov Qishloq xoʻjaligi mahsulotlarini saqlash va qayta ishlash texnologiyasi Toshkent . “Tex Pro – Silver”. 2021y.
3. <https://n.ziyouz.com>
4. O.Yakubjonov S.Tursunov Z.Muqimov “Donchlik” . Toshkent “Yangi asr avlodi” 2009y. 5. X.N.Atabayeva J.B.Xudayqulov “Oʻsimlikshunoslik” Toshkent. 2018y

## BO'YMDARON O'SIMLIGINING BOTANIK TASNIFI VA FOYDALI XUSUSIYATLARI

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**Annotatsiya:** Astradoshlar oilasiga mansub bo'yimadaron o'simligining tuzilishi, geografik tarqalishi shuningdek xalq tabobatiga qo'llanilishi haqida keng ma'lumotlar berilgan.

**Kalit so'zlari:** Asteraceae, O'rta Osiyo, xolin, asparagin, smolalar, organik kislotalar, Bibershtayn bo'yimodaroni—Tisyachelistnik Bibershtayna—A.bibersteintt S. Afan, Santolinli bo'yimodaron (boshog'riq o'ti)—Tisyachelistnik santolinniy—A.santolina L., Tobulgibarg bo'yimodaron—tisyachelistnik tavalgolistniy A. fitipendulina Lam.

**O'simlik tasviri.** Astradoshlar (murakkabguldoshlar)—Asteraceae (Coshpositae) oilasiga mansub, bo'yi 20-50 sm ga yetadigan ko'p yillik o't-o'simlik. Poyasi bir nechta, tik o'sadi, yuqori qismi shoxlangan, barglari nishtarsimon, ikki marta nishtarsimon yoki chiziqsimon bo'laklarga patsimon ajralgan bo'lib, ildizoldi va poyasining pastki qismidagilari bandli, qolganlari bandsiz, poyasi bilan shoxlarida ketma ket o'rnashgan. Mayda, tuxumsimon savatchaga to'plangan oqish, ba'zan och pushtirangli gullari poyasi bilan shoxlari uchiga joylashgan qalqonsimon gulto'plamini hosil qiladi. Mevasi—yassi, tuxumsimon, kulrang pista. Iyun oyidan boshlab to yozning oxirigacha gullaydi, mevasi avgustdan boshlab yetiladi.

**Geografik tarqalishi.** O'rta Osiyoning hamma hududlaridagi quruq o'tloqlarida, qirlar, tog' etaklari, tog'dagi o'tloqlar, butalar orasida, soylarda, ariq bo'ylari, yo'l yoqalari, o'rmon chetlari bog'lar va boshqa yerlarda o'sadi.

**Qo'llaniladigan qismi.** Yer ustki qismi, ba'zan gullari. O'simlik gullay boshlaganda uni yuqori qismidan 15 sm uzunlikda (yoki faqat gulto'plamlari) qirqib olinadi va soys yerda yoki 50C haroratdagi quritgichlarda quritiladi. Oddiy bo'yimadaronni yig'ish vaqtida Oddiy bo'yimadaron o'simlikni ildizi bilan sug'urib olmaslik kerak. Aks holda, bu o'simlik tabiatda yo'qolib ketishi mumkin.

**Kimyoviy tarkibi va ishlatilishi.** Bo'yimadaronning yer ustki qismi va gullari tarkibida 0.06-0.8 % efir moyi, 9-13 mg % karotin, 74.8 mg % vitamin C va K, flavonoidlar (apigenin, lyuteolin va ularning glikozidlari), alkaloidlar (axillein va

betokisin), xolin, asparagin, smolalar, organik kislotalar, achchiq, oshlovchi va boshqa moddalar bor. Efir moyi 1-4% gacha xamazulen, 8-10 % sineol, borneol, 13% gacha bornilasetat, tuyon kislotalar va boshqalar terpenoidlardan tashkil topgan.

**Dorivor preparatlari** (damlamasi, suyuq ekstrakti) me'da-ichak kasalliklarini davolash, ishtaha ochish hamda ichakdan, bachadondan, burundan, milkdan, yaralardan va gemorroidal qon oqishlarni to'xtatish uchun qo'llaniladi. Oddiy bo'ymodaronning guli va yer ustki qismi ishtaha ochishda va me'da-ichak kasalliklarida ishlatiladigan yig'malar-choylar tarkibiga kiradi. Oddiy bo'ymodaron qadimdan xalq tabobatida turli kasalliklarni davolash uchun ishlatilib kelinmoqda.

O'simlikning yer ustki qismidan tayyorlangan damlama yoki qaynatma qon tupurganda, qon aralash ich ketganda va boshqa kasalliklarda qon to'xtatuvchi dori sifatida qo'llaniladi. Bundan tashqari, damlamasini yana ishtaha ochish, o'pka sili, shamollash, astma, isitma, dizenteriya ichak infeksiyasi va boshqa me'da-ichak kasalliklarini, bosh og'rig'ini davolash hamda siydik haydash uchun ishlatiladi. O'simlik gulining kukunini as alga qorib gijjalarni tushirish maqsadida bersa ham bo'ladi. Oddiy bo'ymodaron damlamasi bilan yaralarni yuvish ancha samarali vosita hisoblanadi. Xalq orasida bo'ymodaronning yana uch turi tabobatda qo'llaniladi: Bibershtayn bo'ymodaroni—Tisyachelistnik Bibershtayna—A.bibersteintt S. Afan, Santolinli bo'ymodaron (boshog'riq o'ti)—Tisyachelistnik santolinniy— A.santolina L., Tobulgibarg bo'ymodaron—tisyachelistnik tavolgolistniy A. fitipendulina Lam.

**O'simlik tasviri.** Bo'yimodaronning bu uch turi bo'yi 15-75 sm ga yetadigan ko'p yillik o't-o'simlik. Poyalari bir nechta, tik o'sadi, shoxlanmagan ham bo'ladi. Damlamasi bilan yaralarni yuvish tuzukkina naf beradi. Xalq orasida bo'ymodaronning yana uch turi tabobatda qo'llaniladi: Bibershtayn bo'ymodaroniTisyachelistnik Bibershtayna A. bibersteintt S. Afan, Santolinli bo'ymodaron. (boshog'riq o'ti) Tisyachelistnik santolinniy - A. santolina L., Tobulgibarg bo'ymodaron - tisyachelistnik tavolgolistniy A. fitipendulina Lam.

**O'simlik tasviri.** Bo'yimodaronning bu uch turi bo'yi 15-75 sm ga yetadigan ko'p yillik o't-o'simlik. Poyalari bir nechta, tik o'sadi, shoxlanmagan yoki yuqori qismi shoxlangan. Barglari tekis yoki tishsimon qirrali, nishtarsimon bo'laklarga patsimon ajralgan bo'lib, bandi yordamida (ildizoldi to'pbarglari va poyasining pastki qismi dorilari) yoki bandsiz (poyasining yuqori qismidagilari) poyasi bilan shoxlarida ketma-ket o'rnashgan. Savatchalarda to'plangan mayda, sariq rangli gullari poyasi bilan shoxlari uchida joylashgan qalqonsimon gulto'plamni hosil qiladi. Mevasi pista. May oyidan sentabrgacha gullaydi, mevasi iyun-sentabr oylarida yetiladi. Geografik tarqalishi. Bo'yimodaron turlari O'rta Osiyo respublikalaridagi Kavkaz va, qisman, Ukraina va Belorussiyaning janubiy hududlari. (Bibershteyn bo'yimodaroni) cho'llarda, yarimcho'llarda, tog' etaklaridan to tog'larning o'rta qismigacha bo'lgan tosh-tuproqli tog' yonbag'irlarida, shag'alli va qumli yerlarda, daryolarning shag'alli joylarida,

soylarda, ariq bo'ylarida, o'tloqlarda, sho'r yerlarda, begona o't sifatida ekinzorlarda va bog' yerlarda o'sadi.

**Qo'llaniladigan qismi.** Yer ustki qismi. O'simlik gullash davrida poyasining yuqori qismi (gullari va barglari bilan) hamda ildizoldi barglari o'rib olinadi va soya yerda quritiladi. Kimyoviy tarkibi va ishlatilishi. Bo'yumodaron turlari garchi efir moyi saqlovchi o'simliklarga kirsada, lekin kimyoviy tarkibi jihatidan bir-biridan farq qiladi. Bibershteyn bo'yumodaronining yer ustki qismi tarkibida 0,13-0,52 % efir moyi, alkaloidlar, 0,36 % flavonoidlar (giperozid, lyuteolin, apigenin), 1,37% organik kislotalar, 74,8 mg % vitamin C va K, 2,50% gacha qandlar, smola, achchiq, 1,41- 0,62 % oshlovchi va boshqa moddalar bor. Yer ustki qismining efir moyi 63% gacha sineoldan, 40% gacha p-simol, 10% a terpineol, kamfara va boshqa terpenlardan tashkil topgan. Santolinli bo'yumodaron yer ustki qismi o'z tarkibida 0,11% efir moyi, achchiq santolin va santolinoid hamda boshqa moddalar saqlaydi. Efir moyi 56% gacha kamfara, 20% gacha sineol, 15% linyon va boshqa terpenoidlardan tarkib topgan. Tobulgibarg bo'yumodaron yer ustki qismi tarkibida 0,07% (gulida 1,2 %) efir moyi, oz miqdorda alkaloidlar, 0,21 9% (gulida 0,7%) flavonoidlar (giperozid, lyuteolin, sinarozid), kumarinlar, 2,50% gacha qandlar, 6,5% gacha oshlovchi va boshqa moddalar bor. Efir moyi 30% atrofida borneol murakkab efiri, 8% kampfen, 5% pinen, 35% spirt va boshqa birikmalardan tarkib topgan.

Bo'yumodaronning bu uch turi qadimdan xalq tabobatida turli kasalliklarni davolash uchun ishlatib kelinadi. Yer ustki qismidan (ayniqsa, gulidan) tayyorlangan qaynatmasi bilan Abu Ali ibn Sino qaytishi qiyin bo'lgan shishlarni, eti uzilgan yerlarni va radikulit kasalliklarini davolagan. Nafas olish qiyinlashganda qaynatmasini yoki damlamasini ichishga buyurgan. Qaynatmasini yana bo'yurak va qovuq toshlarini tushirish uchun, siydik haydash, ayollarda to'xtab qolgan hayzni keltirish uchun qo'llagan. Bo'yumodaron turlarining yer ustki qismidan tayyorlangan damlamasi yoki qaynatmasi xalq orasida me'da kasalliklariga, o'pka sili va bosh og'rig'iga davo qilinadi hamda turli qon oqishlarda qon to'xtatuvchi va isitmani tushiruvchi vosita sifatida ishlatiladi. Gullarining kukuni bilan kuyganni va ochiq qon oqib turgan yaralarni davolash mumkin. Buning uchun tananing kuygan yeriga va yaralarga kukundan sepiladi. Astma kasalligida bo'yumodaron turlari gulidan tayyorlangan damlamasi yoki qaynatmasiga novvot qo'shib ichiriladi.

#### **Foydalanilgan adabiyotlar:**

1. Xolmatov H.X., Habibov Z. H., Farmakognosiya [Darslik], T., 1967;
2. Nabiyeu M, Shifobaxsh giyoxlar, T., 1980; 3. Hojimatov Q., Olloyorov M. , O'zbekistonning shifobaxsh o'simliklari va ularni muhofaza qilish, T., 1988;
4. Xoliqov K., O'zbekiston janubidagi dorivor o'simliklar, T., 1992;
5. Hojimatov Q.H., Yo'ldoshev K.Y., Shogulomov U.Sh., Hojimatov O.Q., Shifobaxsh giyohlar dardlarga malham (Fitoterapiya), T., 1995;

## YERLARNING MELIORATIV HOLATI VA SHO'R YUVISH ME'YORLARIGA FITOMELIORANT O'SIMLIKLARNING TA'SIRI

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**Annotatsiya:** Ushbu maqolada yerlarning meliorativ holati va sho'r yuvish me'yorlariga fitomeliorant o'simliklarning ta'siri, sho'rlangan tuproq holatini yaxshilashga qaratilgan ishlar va tajribalar va uning xulosalari keltirilgan.

**Kalit so'zlar:** Melioratsiya, tuproq, fitomeliorant, tuz, qurg'oqchilik, oq jo'xori, bug'doy

Respublikamizda mustaqillikning dastlabki yillaridan boshlab iqtisodiyotimizning muhim tarmog'i hisoblangan qishloq xo'jaligida muhim o'zgarishlar amalga oshirildi. Jumladan, Prezidentimiz tomonidan aholining turmush darajasini yaxshilash, oziq-ovqat mahsulotlariga bo'lgan talabini qondirish maqsadida yurtimizda g'allachilik sohasida ham ulkan ishlar amalga oshirilib, g'alla mustaqilligiga to'liq erishildi. Respublikamizda g'allachilikni rivojlantirish borasida ko'plab olimlar ilmiy tadqiqot ishlarini olib borishmoqda. Ilmiy tadqiqot ishimizning asosiy maqsadi hozirgi kunga kelib suv tanqisligi kuzatiladigan yillarda g'alla maydonlarida don hosili yig'ishtirib olingandan so'ng, bunday maydonlarning aksariyat qismi shudgorlanib ekin ekilmay qoldirilmoqda va natijada mineralizatsiyasi yuqori bo'lgan yerosti sizot suvlari kapillyarlar orqali yer yuzasidan bug'lanishi evaziga uning tarkibidagi har xil suvda eriydigan o'simlik uchun zararli tuzlar tuproq tarkibiga kelib qo'shilmoqda. Buning oqibatida tuproqning turli darajada qayta sho'rlanishiga olib kelmoqda va kuz-qish davrlarida sho'r yuvish tadbirlariga katta miqdorda suv resurslarini sarflashga sabab bo'ladi.

Yuqoridagi muammolarni bartaraf etish maqsadida dala tajriba maydonining sho'rlangan va sho'rlanishga moyil, yerosti sizot suvlarining joylashish chuqurligi 1,5-2,0 metr bo'lgan, o'tloqi allyuvial tuproqlari sharoitida kuzgi bug'doydan so'ng fitomeliorant o'simliklari sifatida qurg'oqchilikka va tuzga chidamli Oq jo'xori hamda mosh ekinlarini ekib, yerlarning meliorativ holatini yaxshilash, buning natijasida sho'r yuvish me'yorlari hamda muddatlarini qisqartirish bo'yicha ilmiy tadqiqot ishlari olib borildi. Tadqiqotlar davomida tuzlarning harakat qilish dinamikasini o'rganish maqsadida tuproqning 0-10, 10-20, 20-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90,

90-100 sm qatlamlaridan namunalar olinib, o'simliklarning o'sishi va rivojlanishi uchun salbiy ta'sir etadigan (CL1, SO4, HCO3, quruq qoldiq) tuzlar miqdorlari laboratoriya sharoitida tahlil qilib borildi.

Kuzatuv natijalari o'rganilganda tajriba dalasida dastlab quruq qoldiq miqdori tuproqning 0-100 sm qatlamida 0,163 % ni tashkil qilgan bo'lsa, tajribalar oxiriga borib nazorat, ya'ni shudgor dalasida quruq qoldiq miqdori bir metrlik qatlamda 0,412% ni tashkil qilgan bo'lsa, oq jo'xori ekilgan 2-variantda mavsum oxirida quruq qoldiq miqdori 0,228% tashkil qilib, nazorat variantiga nisbatan 0,184 ga kam yig'ildi. Mosh ekilgan 3-variantda quruq qoldiq miqdori 0,302% ni tashkil qilib, nazorat variantiga nisbatan 0,110% kam yig'ilgan bo'lsa, oq jo'xori yetishtirilgan 2-variantga nisbatan 0,074% ko'p yig'ildi. Suv tanqisligi sharoitida kuzgi bug'doydan bo'shagan dalalarda fitomeliorant o'simliklardan oq jo'xori hamda moshni takroriy ekin sifatida yetishtirish natijasida yerlarning meliorativ holatini yaxshilash va yerdan foydalanish samaradorligi oshishini ta'minlaydi. Kuzgi bug'doydan so'ng oq jo'xori o'simligini N-150, P-100, K-60 kg/ga oziqlantirish me'yorida va sug'orisholdi tuproq namligi CHDNS ga nisbatan 70-70-65% da mavsumiy sug'orish me'yori 1808 m<sup>3</sup> / ga bilan sug'orish natijasida 47,4 s/ga don va 226,2 s/ga pichan hosili olindi. Shuningdek, mosh ekinini N-150, P-100, K-60 kg/ga oziqlantirish me'yorida va sug'orisholdi tuproq namligi CHDNS ga nisbatan 70-70-65% da mavsumiy sug'orish me'yori 1840 m<sup>3</sup> /ga sug'orish ishlari amalga oshirilganda moshdan 21,8 s/ga don va 15,1 s/ga pichan hosili olishga erishildi.

Tajribalarda fitomeliorant sifatida ekilgan oq jo'xori va moshni sug'orish sonlari va me'yorini tuproqning suv va tuz rejimlariga ta'siri uchala tajriba variantlarida kuzgi bug'doydan keyin fitomeliorant ekilgan variant, bo'sh maydonga taqqoslangan holda o'rganildi. Ikkala tajriba variantida ham, kuzgi bug'doydan keyin ekin ekilmagan sharoitda, tuproq namligi kuzgi bug'doy pishib yetilgandan kuzgacha bo'lgan davrlarda kamayib bordi. Sho'r yuvish me'yorini hisoblashda tuproqning suv-fizik xususiyatini va tuzlar miqdorini hisobga olgan holda bir metrli tuproq qatlami uchun V.R.Volobuyev formulasi bo'yicha aniqlandi.

Tajriba dalasida eng yuqori sho'r yuvish me'yori tajriba maydonining shudgorlab, ekin ekilmagan dalasida qayd etilib, mavsumiy sho'r yuvish me'yori 5383 m<sup>3</sup> /ga teng bo'ldi. Ushbu dalada mavsum davomida 3 marta sho'r yuvish ishlari amalga oshirildi. Oq jo'xori (Sorgo) o'simligi ekilgan 2-variantda esa mavsumiy sho'r yuvish me'yori 2380 m<sup>3</sup> /ga ni tashkil qilib, mavsum davomida 2 marta sho'r yuvish ishlari amalga oshirildi. Mosh ekilgan 3-variantda sho'r yuvish me'yori 3403 m<sup>3</sup> / ga ni tashkil qilib, shudgorlab ekin ekilmagan dalaga nisbatan sho'r yuvish ishlariga 1980-3003 m<sup>3</sup> /ga kam suv sarflandi. Tadqiqotlarda sho'r yuvish tadbirlari dekabr oyining uchinchi o'n kunligidan yanvar oyining oxirgi o'n kunligigacha davom etib, sug'orishlar orasidagi davr 14-18 kuni tashkil qildi. Xulosa qilib aytish joizki, tajriba maydonida kuzgi

bug'doydan keyin fitomeliorant sifatida oq jo'xori va mosh ekilganda, tuproqning namligi yuqori bo'lib, uning tarkibida tuzlar miqdori kamayyadi hamda yerlarning meliorativ holatining yomonlashishi oldi olinadi. Shu bilan birga takroriy ekin hisobiga daladan qo'shimcha hosil olish imkoniyati yaratiladi.

### ADABIYOTLAR

[1] Abdalova, G.N.; Eshonkulov, J.S.; Sulaymonov, S.O.; Abdullayeva, F.M. Improvement of Cotton Nutrition Procedure and Irrigation Technologies. *ACADEMICIA Int. Multidiscip. Res. J.* 2021, 11, 720–723. [Google Scholar] [CrossRef]

[2] Nasirov Bakhtiyor Salakhiddinovich Charshanbiyev Umuroq Yuldashevich, Eshankulov Jamoliddin Saporboy ugli. "Efficiency of application of herbicides which are samuray 33% ek, zellek super 10.4% ek and triflurex 48% ek against weeds in cotton fields" *Web of Scientist: International Scientific Research Journal* 2.09 (2021): 136-139.

[3] Salakhiddinovich, Nasirov Bakhtiyor., Eshankulov Jamoliddin Saporboy ugli 2021 "Development of Irrigation Procedures for Shadow Varieties Planted After Autumn Wheat." *International conference on multidisciplinary research and innovative technologies. Vol. 1.* 2021. Google Scholar]

[4] J Eshonkulov, B Kamilov Effect of irrigation regimes on the fertility of soybean and sunflower cultivars planted in repeated periods To cite this article: January 2023 IOP Conference Series Earth and Environmental Science DOI: 10.1088/1755-1315/1140/1/013006 Google Scholar]

[5] Allanov, K.; Sheraliev, K.; Ulugov, C.; Ahmurzayev, S.; Sottorov, O.; Khaitov, B.; Park, K.W. Integrated Effects of Mulching Treatment and Nitrogen Fertilization on Cotton Performance under Dryland Agriculture. *Commun. Soil Sci. Plant Anal.* 2019, 50, 1907–1918. [Google Scholar] [CrossRef]



## IQBOL MIRZO LIRIKASIDA TARIXGA NAZAR

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**Annotasiya:** Hozirgi kun she'riyati vakillari ham zamon bilan, ham o'tmishimiz bilan o'z ijod safarlarida hamroh bo'lib yangidan -yangi badiiy ijod na'munalarini yaratishmoqda. Bu esa ma'no ko'lami chuqur bo'lishiga, o'quvchi ongida qiziqish, o'rganish, tahlil qilishga bo'lgan ishtiyoqning oshishiga turtki bo'ladi. Ushbu mavzularni o'z qalamiga olgan yaratuvchilardan bir- Iqbol Mirzodir. Yaqinda teleekranlarda, matbuotda e'lon qilingan jadidlarimiz haqidagi she'ri, fikrlari, "Jadid" gazetasining ta'sis etilishi, shu bilan bir qatorda qadimiy va navqiron ko'hna Samarqand va uni dunyoga tanitib turuvchi boqiy obidalari, necha ming yillar mobaynida qurilgan va barbod bo'lib ketgan tariximiz haqida g'alayonli, ardoqli, g'urur- iftixori aks etgan she'rlari Iqbol Mirzoning tarixga bo'lgan e'tiborini ko'rsatib beradi. Biz maqolada aynan shoirning ijodida tarixiylikka atalgan she'rlarini tahlil qilamiz.

**Kalit so'zlar:** tarix, Samarqand, obidalar, tarixiy shaxslar, O'tinch, Yofas, Ch. Aytmatov, iqqolli yurtning farzandi Iqqol

## A LOOK AT HISTORY IN IQBAL MIRZA'S LYRICS

**Annotation:** Representatives of contemporary poetry are creating new examples of artistic creativity, accompanying them on their creative journeys both with time and with our past. This will make the scope of the meaning deeper, and the interest, learning, and analysis will increase in the student's mind. Iqbal Mirza is one of the creators of these themes. Poems and thoughts about our Jadids published recently on TV screens and in the press, about the establishment of the "Jadid" newspaper, as well as about the ancient and modern Samarkand and its monuments that make it known to the world, about our history that was built and destroyed over thousands of years, his poems with pride show Iqbal Mirza's attention to history. In the article, we will analyze the poet's poems, which are called historic in his work.

**Keywords:** history, Samarkand, monuments, historical figures, O'tinch, Yofas, Ch. Aitmatov, Iqbal, a child of an Iqbal country

Nasrda ham nazmda ham qalam tebratgan ijodkor- Iqbol Mirzoning she'riyat olamida o'tmishga nazar solish, bugungi kunda o'tmishning ahvoli, natijasi qanday eknaligini, bu yuksaklik va qaloqliklarga sababchi bo'lib qolgan voqea- hodisalarni bir

qolipga solib, o‘quvchiga estetik zavq berish bilan birga o‘zlikni, o‘zbekni anglatishga, to‘g‘ri saboq chiqarishga undaydi. I. Mirzo tarix haqida shunday deydi: “ Tarix saboqlari bilan istiqbolga qaraladi<sup>1</sup>”. Darhaqiqat, tarixsiz kelajakni qurib bo‘lmaydi. U o‘z o‘quvchilariga ajdodlar yodi, ulardan qolajak moddiy-ma’naviy boyliklarimizni tanitishni o‘z oldiga maqsadida bir necha satrlar bitadi.

*Ular maktab qurgan, biz uy quramiz.*

*Ular g‘oya surgan, biz o‘y suramiz.*

*Yoppa tomoshabin bo‘lib turamiz.*

*Jadidlar yetishmayapti, jadidlar<sup>2</sup> [1. 1]*

Yaqindan chiqishni boshlagan “ Jadid” gazetasining birinchi sonida e‘lon qilingan “ *Jadidlar* ” she‘ri orqali mana shu kunga qadar o‘zbek eli qanday voqea -hodisalarni, taniqli va ma‘rifatparvar insonlarni ko‘rgani, ular qoldirgan me‘rosalaridan bir marjon terishga da‘vat etadi:

*Samarqand - olamning sayqali, ko‘rki,*

*Samarqand - kimga dars, kimgadir saboq.*

*Qaytadan o‘zini topgali, ko‘rki,*

*Shahrimga oshiqar yuz minglab sayyoh<sup>3</sup>. [3. 143.]*

Qalbida iftixor, g‘ururlanish tuyg‘ularini ota - bobolarimizdan qolgan “ Sayqali ro‘yi zamin - Samarqand<sup>4</sup> ”, - degan ibora Samarqand shahrini kim uchundir dars bersa, kim uchundir saboq deb ta‘riflayapti. Prezidentimiz Shavkat Mirziyoyev IHT TIVK 43-sessiyasining ochilish marosimida so‘zlagan nutqida: “ Buyuk tarixda hech narsa izsiz ketmaydi. U xalqlarning qonida, tarixiy xotirasida saqlanadi va amaliy ishlarida namoyon bo‘ladi. Shuning uchun ham u qudratlidir. Tarixiy merosni asrab-avaylash, o‘rganish va avlodlardan avlodlarga qoldirish davlatimiz siyosatining eng muhim ustuvor yo‘nalishlaridan biridir<sup>5</sup>”, - deb saqlab qolingani va kelgusi avlodlarga yetkazib berishning ahamiyatini aytgan bo‘lsalar, Iqbol Mirzo aynan o‘sha tiklanib borayotgan o‘tmishning bugungi kundagi ro‘lini aynan *Samarqand* misolida tavsiflab beradi. Shuningdek bu she‘rida Samarqandni eskidan qolgan gapni: “ *Hamma yo‘llar Rimga eltadi* ”... jumlasini epigraf qilib keltirib endi hamma yo‘llar endi Samarqandga olib borishini faxr tuyg‘usi bilan ifodalab beradi: “ *Mening ona shahrim – Rim yo‘llari ham – Bugun Samarqandga olib boradi* ”. Bu misralar isbotini har yili yurtimizga tashrif buyurayotgan sayyohlar haqida bitilgan misralaridan bilsangiz bo‘ladi: “ *Shahrimga oshiqar yuz minglab sayyoh* ”.

*Samarqandni kezsang, ajib sinoat,*

*Yelkangga qo‘ygandek kimdir kaftini –*

<sup>1</sup> I. Mirzo. Birlashmoq davri. Jadid.- Toshkent. №1, 2024. 4-bet.

<sup>2</sup> I. Mirzo. Jadidlar. Jadid.- Toshkent. №1, 2024. 1-bet.

<sup>3</sup> И. Мирзо. Айтгил, дўстим, нима қилдик Ватан учун?!.- Тошкент: О‘zbekiston, 2017. 143- bet.

<sup>4</sup> Самарқанд тарихи. - Тошкент, 1—2 ж., 1971.

<sup>5</sup> [www.kun.uz](http://www.kun.uz). Shavkat Mirziyoyevning IHT TIVK 43-sessiyasining ochilish marosimidagi nutqi.- O‘zbekiston, 2016.

*His qilaverasan betinim, bot-bot,  
Bir sirli nigohning iliq taftini<sup>6</sup>. [ 3. 145.]*

Bu she'rida Samarqandni eskidan qolgan gapni: “ *Hamma yo'llar Rimga eltadi* ”... jumlasini epigraf qilib keltirib endi hamma yo'llar endi Samarqandga olib borishini faxr tuyg'usi bilan ifodalab beradi: “ *Mening ona shahrim – Rim yo'llari ham – Bugun Samarqandga olib boradi* ”. Bu misralar isbotini har yili yurtimizga tashrif buyurayotgan sayyohlar haqida bitilgan misralaridan bilsangiz bo'ladi.

Samarqand – necha minglab jang-u jadallarni, necha minglab shohlarni-yu fozil insonlarni ko'rgan yer. Har bir qadamingda bir me'rosi mujassamdir. “ *Samarqand sirli nigoh* ” nom bilan atalmish she'rida bu yerga kelib ziyorat qilib ketishga undaydi, tarixiy obidalar va shaxslarning – *Yalangto'sh Bahodir ( Tillakori), Ulug'bek, Bibixonim, Alisher, Shayboniyxon va Bobur, Amir Temur* larning nigohini ya'ni ulardan qolgan me'rosni ko'rishga, o'rganishga, shukr va iftixor etishga da'vat etadi. Shoir ushbu berilgan she'ridan tashqari berilgan har bir obrazlar qoldirgan me'roslarini va unda jonbozlik ko'rsatgan insonlarni tarannum etib, alohida she'rlar bitadi: “ *Go'ri Mir. Gumbazlar* ”, “ *Rasadxona. Ulug'bek yulduzi*”, “ *Shohi Zinda. Sado*”, “ *Buyuk ipak yo'li*” kabi.

I. Mirzo “ *O'tinch* ” nomi bilan ataluvchi ijod mahsulida butun o'zbek eli va ularning yog'iylari, xatolarini davriga qarab ketma- ketlikda yozib o'quvchiga tarixni bir jonlantirib bergandek bo'ladi:

*Bilga qog'on edim, Er To'ng'a edim,  
Qutlug'esargular teskari esdi.  
Saltanatni eski terschilik edi.  
So'ng yog'iy bosdi-da, bog'ladi, kesdi.<sup>7</sup> [3. 130.]*

Bu she'rda Yofas kim degan savolga tarixiy asarlarda quyidagicha ma'lumotlar berilgan: *Yofas, Abu Turk (g'arb manbalarida Iafet, Yafet) — qadimiy diniy aqidalarga ko'ra, Nuh(as.)ning 3 farzandidan biri (Som, Hom bilan birga). To'fondan so'ng omon qolgan Nuh(as.) o'g'illariga Yer yuzini bo'lib bergan. Jumladan, Yofas "otasining hukmi birlan... Atil (Itil) va Yoyiq suvining yoqosig'a bordi. Ikki yuz ellik yil anda turdi. Taqi vafot tobdi. Sakkiz o'g'li bor edi (Turk, Xazar, Saqlab, Rus, Ming, Chin, Qamari, Tarix)" ("Shajarayi turk"). To'ng'ich o'g'li nomidan Yofasni "Abu Turk" ("Turkning otasi") deb ham atashgan. Mirzo Ulug'bekning yozishiga Karaganda, Yofasga "Chin Mashriqining boshqa muhitlari, Qomarun tog'lari va rus yerlari oxirigacha cho'zilgan oq cho'qqilar va beshinchi iqlimning qolgan uchdan bir qismi to ma'mur yerlarning oxirigacha va Shimolning zulummotigacha yerlar baxsh etilgan edi... Aytadilarki, Turon zamin va Turkistonni Yofas(as.) o'ziga asrab qo'ygan edi. Shu sababli uni Abutturk deyishgan". Qadimda turkiy o'lkalarda yomg'ir*

<sup>6</sup> Ўша асар. 145-б.

<sup>7</sup> И. Мирзо. Айтгил, дўстим, нима қилдик Ватан учун?!- Тошкент: О'zbekiston, 2017. 129-130 б.

yog'diruvchi tosh - *Yada toshi yordamida duo o'qib osmondan yomg'ir, qor yog'diruvchi kishilar bo'lgan. Mana shu yada ilmini Yofasga otasi Nuh(as.) o'rgatgan degan naql bor. Yofas vafotidan so'ng Turk otasi o'rniga o'tirib yurtni boshqargan. Xalq uni Yofas o'g'loni- Tangriqut deb atagan.*<sup>8</sup> She'r o'zbek xalqini boshqarish Tangriqutning qo'liga o'tishi, uning taqdiri bilan boshlanib, chor hukumatidan qutilishgacha bo'lgan davrni tasvirlab beradi. Tangriqut o'zbek xalqi ko'rgan olamni, insonlarni- Alp Er To'ng'a, Bilga xoqonni, Sohibqiron- u Ulug'bekni, Abdullatif, Boburni hattoki o'zbek xoqonliklaridagi xonlarni ham, urf- odatini ham mana shu she'rda ko'rsatib bergan. Bu esa shoirning tarixga bo'lgan bilim va qiziqishlarining darajasini qanday ekanligini ko'rsatib bersa, afsus va to'g'ri xulosa chiqarishga undashi uning bu mavzuga bee'tibor emasligini bildirib turuvchi bir asosdir. Shuning uchun ham maqolada shoirning Alp Er To'ng'aga oid satrlarini oldim. Unga oid ma'lumotlarni o'quvchi maktab davridan tanishdir.

Iqbol Mirzoning yuqoridagi she'rlaridan ko'rinib turibdiki, ijodkorning o'zi: "O'zimni xalqimiz va yurtimizdan hamisha qarzdorman deb, hisoblab kelaman. Bu qarzni esa yangi- yangi ijod mahsullari, puxta asarlar yozish orqali uzish mumkin"<sup>9</sup>, - deb aytganidek har bir xoh nasriy bo'lsin, xoh nazmiy barchasini yurti uchun bitajagini ta'kidlab o'tadi. Bu ijodkorimiz ko'rinishidan sof, samimiy qalbli inson ekanligi she'rlariga ham ta'sir qiladi ya'ni ijodkor meni qanday ekanligini u yaratayotgan nazmiy asarlarida ko'ra olamiz. Uning quyidagi "*Kechagina*" she'ri fikrimiz isbotidir:

*Kechagina g'o'r shoir edim,  
G'o'r edim-u, zo'r shoir edim.  
She'r to'qirdim dangal, qo'rqmasdan  
Va har gal qo'rqmasdan.  
Bugun esa o'ylab yozaman,  
Bitta she'rni o'ylab yozaman*<sup>10</sup>. [ 10 ]

O'z asarlari bilan dunyoni zabt etgan mashhur adib Chingiz Aytmatov Iqbol Mirzo timsolida zamonaviy o'zbek she'riyatining iqbolini ko'rayotganini aytgan edi. O'tgan yillar buyuk adibning o'ziga xos bashoratini isbotladi. Shoir, iqboli bor yurtning Iqboli bo'lib tanildi, deb yozadi Bag'dod hayoti nashri<sup>11</sup>. Ijodkor o'zi istaganidek, she'rlari bilan o'zbek adabiyotida ijod mahsullari shamol bo'lib kirib kelmoqda, chang zarralaridek har bir mavzuda qalam tebratyapti. O'zi uchun muhim hisoblagan mavzudan biri – tarixiylikni ham chetlab o'tmaganini ko'rishimiz mumkin.

<sup>8</sup> O'zbekiston milliy ensiklopediyasi.- Toshkent, 1-j. 2000-yil.

<sup>9</sup> [www.kun.uz](http://www.kun.uz) . N. To'xtasinov. Suhbatl. Mirzo: Har yerda O'zbekiston biz bilan.- 2017

<sup>10</sup> [www.qalampir.uz](http://www.qalampir.uz) . Unvoni bor latta shoirman. Iqbol Mirzoga ochiq xat.- San'at, 2018.

<sup>11</sup> [www.oz.sputniknews.uz](http://www.oz.sputniknews.uz). O. Eshonqulov. O'zbekiston xalq shoiri Iqbol Mirzo 50 yoshda!- Toshkent: Ma'naviyat targ'ibot markazi, 2017.

**Foydalanilgan adabiyotlar:**

1. И. Мирзо. Айтгил, дўстим, нима қилдик Ватан учун?!.- Тошкент: O‘zbekiston, 2017.
2. I. Mirzo. Birlashmoq davri. Jadid.- Toshkent. N°1, 2024.
3. I. Mirzo. Jadidlar. Jadid.- Toshkent. N°1, 2024.
4. N. To‘xtasinov. SuhbatI. Mirzo: Har yerda O‘zbekiston biz bilan.- 2017.
5. O. Eshonqulov. O‘zbekiston xalq shoiri Iqbol Mirzo 50 yoshda!- Toshkent: Ma’naviyat targ‘ibot markazi, 2017.
6. Самарқанд тарихи. - Тошкент, 1—2 ж., 1971.
7. Unvoni bor latta shoirman. Iqbol Mirzoga ochiq xat.- San’at, 2018.
8. O‘zbekiston milliy ensiklopediyasi.- Toshkent, 1-j. 2000-yil.
9. Shavkat Mirziyoyevning IHT TIVK 43-sessiyasining ochilish marosimidagi nutqi.- O‘zbekiston, 2016.

**Foydalanilgan veb-saytlar:**

1. [www.kun.uz](http://www.kun.uz)
2. [www.qalampir.uz](http://www.qalampir.uz)
3. [www.oz.sputniknews.uz](http://www.oz.sputniknews.uz)

## INNOVATIVE TEACHING METHODS FOR ENHANCING ENGAGEMENT IN PRIMARY CLASSROOMS

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**Annotation:** This article addresses the urgent need for innovative teaching strategies that enhance student engagement and improve educational outcomes in primary education. With the rapid evolution of educational technology and methodologies, it is crucial for educators, particularly those at the beginning of their careers, to adapt and implement new approaches to teaching. This paper explores several contemporary teaching methods such as the use of digital tools, gamification of learning, and experiential activities that actively involve students in their own learning processes.

The article provides a detailed examination of how these methods can be integrated into daily lesson plans and the potential challenges and benefits associated with each approach. Additionally, it offers practical advice for assistant teachers in primary education on how to tailor these strategies to suit the developmental needs and interests of young learners. The aim is to equip educators with the tools necessary to create a dynamic and engaging learning environment that fosters an enthusiastic and inquisitive atmosphere among students in primary classrooms.

**Keywords:** Primary education, innovative teaching methods, student engagement, educational technology, gamification in learning, experiential learning, classroom dynamics, teacher development, pedagogical strategies, child development

**Introduction:** In the evolving landscape of primary education, the role of the teacher is continually transforming, necessitating an adaptation to innovative and interactive teaching methodologies. Today's educational environment demands approaches that not only impart knowledge but also stimulate enthusiasm, creativity, and active participation among young learners. The importance of engaging teaching methods is particularly pronounced in primary education, where foundational skills and concepts are established.

This article aims to illuminate the significance and practical application of innovative teaching methods in primary classrooms. It discusses the integration of technology, the use of gamification, and the benefits of experiential learning, which can significantly enhance student engagement and learning outcomes. The focus is on providing university assistant teachers—those at the forefront of shaping young minds—with effective tools and strategies to captivate and inspire their students.

By exploring the practicalities of implementing these modern teaching methods, the article serves as a guide for assistant teachers striving to create more dynamic and inclusive educational experiences. These approaches not only support the cognitive and social development of children but also foster a lifelong love for learning. The ultimate goal is to prepare educators to successfully navigate the challenges of the modern classroom and to utilize these innovative strategies to their full potential.

## **The Role of Technology in Primary Education**

### **1. Integration of Digital Tools in the Classroom**

Integrating digital tools into primary education is becoming increasingly essential as it bridges traditional teaching methods with the dynamic world of technology. Tools such as interactive whiteboards, tablets, and educational software can transform the classroom into a vibrant learning environment. These technologies support various teaching styles and learning paces, allowing for more personalized education. Teachers can use digital tools to create interactive lessons that cater to visual, auditory, and kinesthetic learners, thereby enhancing comprehension and retention of information.

### **2. Examples of Technology that Enhances Learning and Interaction**

Several technologies have proven effective in primary classrooms:

- Interactive Whiteboards: These allow for interactive lessons where children can engage directly with the material presented.
- Tablets and Apps: Tablets provide access to a wide range of educational apps that make learning fun and interactive. Apps can cover everything from basic literacy and numeracy to complex problem solving.
- Online Collaboration Tools: Tools like Google Classroom or Microsoft Teams enable students to collaborate on projects in real-time, fostering teamwork and communication skills.
- Learning Management Systems (LMS): Platforms like Seesaw or ClassDojo help teachers manage classroom activities and track student progress, facilitating personalized feedback and support.

### **3. Challenges and Considerations When Using Technology with Young Learners**

While the benefits of using technology in education are significant, several challenges need careful consideration:

- Screen Time: There is a growing concern about the amount of time children spend staring at screens, which can affect their health and social skills. It is crucial to balance technology use with other forms of learning and ensure that screen time is productive and educational.
- Digital Divide: Access to technology can vary greatly among students, depending on socio-economic backgrounds. Schools need to address this digital divide

to ensure that all students have equal opportunities to benefit from educational technology.

- **Training and Support for Teachers:** Integrating technology in teaching requires that teachers are not only equipped with the necessary tools but also trained to use them effectively. Continuous professional development and technical support are vital to help educators overcome any hurdles in using technology.

By addressing these challenges and leveraging the capabilities of modern technology, primary education can be enhanced to better prepare students for a rapidly evolving world.

## **Gamification of Learning**

### **1. Definition and Principles of Gamification**

Gamification involves applying game-design elements and game principles in non-game contexts. In education, this means incorporating elements such as points, badges, leaderboards, and challenges into learning activities to motivate and engage students. The core principles of gamification in education focus on:

- **Engagement:** Utilizing game mechanics to capture and maintain students' interest.
- **Motivation:** Encouraging continuous participation and effort by rewarding achievement.
- **Feedback:** Providing immediate feedback through rewards and progress indicators to help students understand their learning trajectory.
- **Collaboration and Competition:** Fostering a balance between collaborative teamwork and healthy competition among peers.

### **2. Benefits of Gamified Learning Environments**

Gamification in education offers several benefits that significantly enhance learning outcomes, including:

- **Increased Engagement:** Game-like elements make learning more engaging and enjoyable, helping students stay focused and interested in the content.
- **Improved Retention:** The interactive nature of gamified learning helps improve memory retention by associating learning with enjoyable experiences.
- **Enhanced Motivation:** Rewards and achievements in gamified learning create intrinsic and extrinsic motivation, encouraging students to persist through challenges.
- **Skill Development:** Games often require critical thinking, problem-solving, and teamwork, which are essential skills in both academic and real-world settings.

### **3. Case Studies and Examples of Successful Gamification in Primary Classrooms**

Several case studies highlight the effectiveness of gamification in primary education:



- Quest to Learn (Q2L): Based in New York, this public school was designed from the ground up for gamification. The curriculum incorporates game-like learning, with students engaging in quest-like scenarios where they solve real-world problems in collaborative settings.

- ClassDojo: This tool uses gamification to manage classroom behavior. Teachers assign points for positive behaviors displayed by students, who can track their progress through a virtual avatar. This immediate feedback system helps improve classroom discipline and motivates students.

- Minecraft Education Edition: This popular game has been adapted for educational purposes, allowing students to explore scientific concepts, mathematics, history, and literature through a virtual world that they build and manipulate themselves.

These examples demonstrate how gamification can transform the traditional educational landscape, making learning a dynamic, interactive, and profoundly engaging process for primary students.

## **Experiential Learning and Its Impact**

### **1. Explanation of Experiential Learning Methods**

Experiential learning is an educational approach where students learn by engaging in direct experiences and reflecting on them. This method contrasts with traditional learning that often involves passive absorption of information. Experiential learning typically involves activities such as:

- Field Trips: Visits to museums, historical sites, or nature parks that relate to the curriculum.

- Simulations and Role-Playing: Activities that mimic real-world scenarios, allowing students to experiment with different outcomes.

- Project-Based Learning: Students undertake projects that require significant research and practical problem-solving, culminating in a final presentation or product.

- Service Learning: Combines community service with classroom instruction, enhancing learning through practical, meaningful community service experiences.

### **2. How Experiential Learning Supports Cognitive and Social Development**

Experiential learning has a profound impact on both cognitive and social development:

- Cognitive Development: By engaging directly with materials and environments, students develop a deeper understanding of the subject matter. This approach promotes critical thinking, problem-solving, and the ability to apply knowledge to new situations.

- Social Development: Many experiential learning activities require collaboration and communication, which are crucial for social development. Students

learn to work in teams, negotiate solutions, and communicate ideas clearly and effectively.

- **Personal Development:** Experiential learning also fosters personal growth by encouraging students to take initiative, make decisions, and reflect on their learning process. This builds self-esteem and confidence.

### **3. Practical Tips for Implementing Experiential Learning Activities**

Implementing experiential learning effectively requires careful planning and consideration:

- **Start Small:** Integrate simple experiential activities like role-playing or small group projects before planning more complex tasks like field trips or large-scale projects.

- **Set Clear Objectives:** Ensure that each experiential activity has clear learning objectives tied to the curriculum. This helps in focusing the activity and measuring its success.

- **Prepare Students:** Prepare students for what to expect and discuss the goals of the activity. This preparation can maximize learning by ensuring students are engaged and understand the purpose of the experience.

- **Reflect and Debrief:** Always include a reflection phase after the activity. Have students discuss what they learned, what surprised them, and how they might apply this knowledge in the future.

- **Seek Feedback:** After the activity, solicit feedback from students about what worked and what didn't. This can help refine future experiential learning projects.

By incorporating experiential learning into the curriculum, educators can create a more dynamic, engaging, and effective educational experience that prepares students not just academically but also socially and personally for the challenges ahead.

## **Creating an Inclusive and Dynamic Classroom Environment**

### **1. Techniques for Fostering an Inclusive Classroom**

Creating an inclusive classroom environment involves ensuring that all students feel valued, respected, and equally involved in the learning process. Key techniques include:

- **Differentiated Instruction:** Tailor teaching methods to accommodate the diverse learning styles, abilities, and backgrounds of students. This might involve using a variety of instructional formats like visual aids, hands-on activities, or verbal explanations.

- **Cultural Responsiveness:** Incorporate materials and content that reflect the cultural, racial, and linguistic diversity of the student body. This helps students see themselves in the curriculum, enhancing their connection to the material.

- Positive Reinforcement: Use positive reinforcement to encourage good behavior and academic achievements, which can help build self-esteem and promote a supportive classroom atmosphere.

- Universal Design for Learning (UDL): Implement UDL principles to provide multiple means of engagement, representation, action, and expression to meet the varied needs of learners.

## **2. Strategies for Maintaining Student Interest and Participation**

Engaging students and maintaining their interest requires active planning and innovative strategies:

- Interactive Learning: Use technology and hands-on activities to make learning interactive. Tools like interactive whiteboards, educational apps, and online collaborative projects can keep students engaged.

- Student Choice: Allow students some choice in their learning activities or topics. This empowers them and can significantly increase their interest and investment in the material.

- Group Work and Peer Learning: Encourage students to work in groups, which can help maintain their interest through social interaction and peer support. This also develops their teamwork and communication skills.

- Real-World Connections: Make lessons relevant to students' lives by connecting the material to real-world situations. This helps students understand the importance of what they are learning and maintains their interest.

## **3. Role of the Classroom Setup and Design in Enhancing Engagement**

The physical layout and design of a classroom can significantly impact learning and engagement:

- Flexible Seating: Consider arrangements beyond traditional rows—circles, U-shapes, or group tables can foster better interaction and collaboration among students.

- Learning Stations: Create different stations in the classroom for various activities. This can include a reading corner, a science experiment station, or a technology hub, which allows students to move around and engage with different types of learning modalities.

- Visuals and Displays: Use walls and spaces around the classroom to display educational posters, student work, and visual aids that reinforce learning and make the environment more inviting and stimulating.

- Accessibility: Ensure that the classroom setup is accessible to all students, including those with physical disabilities. This might involve adjustable furniture, clear pathways, and accessible technology.

By implementing these strategies, teachers can create a classroom environment that is not only inclusive and supportive but also dynamic and engaging, helping all students thrive academically and socially.

**Conclusion:** Throughout this article, we have explored several innovative teaching methods that promise to enhance engagement and improve outcomes in primary classrooms. These methods include the integration of digital tools, the application of gamification principles, and the implementation of experiential learning activities. Each approach offers unique benefits, such as increased student motivation, improved retention of information, and the development of critical life skills, including collaboration and problem-solving.

The importance of continuous learning and adaptation for teachers cannot be overstated. As the educational landscape evolves, so too must the strategies that educators employ. Continuous professional development is essential for teachers to keep abreast of the latest educational technologies, methodologies, and pedagogical theories. This ongoing learning process enables teachers to dynamically respond to the changing needs of their students and the demands of the modern world.

Looking ahead, the future of teaching methodologies in primary education appears poised for further innovation. Technological advancements, deeper insights into child psychology, and a growing emphasis on personalized learning are likely to drive significant changes. Teachers will increasingly become facilitators of learning rather than mere conveyors of knowledge, guiding students through personalized learning paths that are designed to suit their individual needs and learning styles.

Ultimately, the goal of these innovative teaching methods and the continuous adaptation by educators is to create a more engaging, inclusive, and effective educational environment. This will not only prepare students to excel academically but also equip them with the necessary skills to succeed in their personal and professional lives, fostering lifelong learners who are curious, capable, and socially responsible.

### References:

1. Brown, A. L. (2020). *Digital Tools in the Classroom: Enhancing the Learning Experience*. New York: Education Press.
2. Carter, S. M., & Jenkins, D. A. (2019). *Gamification in Education: A New Approach to Engaging Learners*. London: Learning Innovations Series.
3. Dawson, C. (2021). *Experiential Learning: Engaging Students through Real-World Experiences*. Chicago: Scholarly Publications.
4. Fisher, T., & Frey, N. (2018). *The Responsive Classroom: Strategies for Dynamic Teaching and Learning*. San Francisco: Jossey-Bass.
5. Gordon, E. W. (2022). *Technology and Inclusivity in Education: Bridging the Digital Divide*. Boston: Academic Press.
6. Patel, L., & Smith, J. (2020). *Effective Teaching Techniques for Today's Educators*. Toronto: University of Toronto Press.

7. Richardson, J., & Morgan, R. (2019). Learning Through Play: Integrating Gamification into Primary Education. Oxford: Oxford University Press.
8. Singh, A. K. (2018). Universal Design for Learning: A Guide for Teachers and Educators. Cambridge: Cambridge University Press.
9. Smith, H., & Roberts, L. (2021). Classroom Design for Active Learning. Melbourne: Educational Design Publishing.
10. Thompson, R., & Williams, B. (2019). Fostering Lifelong Learners: The Role of Modern Pedagogical Strategies in Education. New York: Routledge.

## EKOLOGIK PR NING TARIXIY-NAZARIY ASOSLARI

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**Annotatsiya:** Ushbu maqolada Ekologik PR ning mohiyati hamda tarixi haqida so'z boradi. Hozirda uch tomonlama ekologik inqiroz tufayli Ekologik PR ni rivojlantirish, aholi o'rtasida ekologik ongini yaxshilashga ehtiyoj mavjud. Shuningdek, ushbu maqolada tadqiqotchi Ekologik PR ning nazariy asosi, ekologiyani saqlash bilan bog'liq xalqaro manbaalarning tavsifiga alohida to'xtalib o'tgan.

**Kalit so'zlar:** ekologik PR, korporativ imij, grinvoshing, antropogen omil, sanoat inqilobi, xalqaro ekologik tashkilotlar.

Hozirgi vaqtda ko'plab xalqaro konferensiyalarning asosiy masalasi global ekologik inqiroz, ekologik toza kelajakni muhokama qilishga qaratilgan. Jumladan, Muhtaram prezidentimiz Shavkat Mirziyoyev Nyu-Yorkda bo'lib o'tgan BMT bosh assambleyasining 78-sessiyasida ushbu global muammo haqida gapirib: "Bugun dunyoda keskin ekologik vaziyat kuzatilmoqda. Iqlim o'zgarishi, biologik xilmaxillikning yo'qolishi va ifloslanish tufayli uch tomonlama sayyora inqirozi kuchaymoqda. Agar o'z vaqtida samarali choralar ko'rilmasa, bu muammolarning oqibatlari hududdagi ijtimoiy-iqtisodiy barqarorlikka jiddiy zarar yetkazadi"<sup>1</sup>, -degan fikrlarni bildirib o'tgan. Yillar o'tkani sayin ekologik muammolar kuchayib, biri ikkinchisini taqozo etib bormoqda. Aholi sonining o'sishi muqarrar ravishda foydali qazilmalarni qazib olish hajmining ko'payishi bilan birga sanoat chiqindilari va ifloslantiruvchi moddalar va issiqxona gazlari chiqindilari hajmining ortib borishi, aholi o'rtasida kasalliklarning ko'payishi va boshqa salbiy oqibatlarga olib keldi. Bularning barchasi sanoat kompaniyalari va jamiyat o'rtasidagi munosabatlarning keskinlashishiga olib keladi. Natijada manfaatlar to'qnashuvini ijobiy hal qilish maqsadida Ekologik PR vujudga kelgan. Bu yo'nalishning tarixiy-nazariy asoslari vaqt o'tishi bilan rivojlanib kelgan turli xil tushunchalar, tarkib va tamoyillarni o'z ichiga

<sup>1</sup> <https://www.instagram.com/p/C3-O8KiqfEH/?igsh=aTgwZXl5dTF5emM3>

oladi. Ushbu asoslar ekologiya sohasida jamoatchilik bilan aloqalar amaliyoti evolyutsiyasini va uning nazariy asoslarini tushunish uchun juda muhimdir.

Ekologik PR atrof-muhitni muhofaza qilish va saqlashni qo'llab-quvvatlaydi, barqaror amaliyot va resurslarni mas'uliyatli boshqarish muhimligini ta'kidlaydi. Yashil PR ekologik muammolarga an'anaviy PR tamoyillarini qo'llaydi, tashkilotlar va ularning manfaatdor tomonlari o'rtasida ijobiy munosabatlarni o'rnatishga qaratilgan ekologik ongli aloqa strategiyalarini taklif qiladi. U korporativ ijtimoiy javobgarlik tushunchasi bilan chambarchas bog'liq bo'lib, u kompaniyaning iqtisodiy, ijtimoiy va ekologik jihatdan barqaror ishlash mas'uliyatini ta'kidlaydi. U ekologik muammolarni korporativ qarorlar qabul qilish bilan hal qilishga urinadi. Video roliklar, ijtimoiy tarmoqlardagi xabarlar, barqarorlik to'g'risidagi hisobotlar va ekologik muammolar to'g'risida xabardorlikni oshirishga qaratilgan ta'lim dasturlari ekologik PR kampaniyalarning asosidir. Ekologik PR mijozlar, xodimlar, investorlar va jamoatchilikni ekologik tashabbuslarga jalb qilishga qaratilgan faoliyatdir. Bunda tashkilotlar ekologik muammolarni hal qilishda va inqirozli vaziyatlarda o'z obro'siga yetkazilgan zararni kamaytirishda shaffof va faol bo'lishi kerak. Umuman olganda, yashil PR ning tarixiy-nazariy asoslari ekologik muammolarni jamoatchilik bilan aloqalar amaliyotiga qo'shilishini ta'kidlaydi, shaffoflik, haqiqiylik, manfaatdor tomonlarning ishtiroki va ekologik tashabbuslarni yetkazishda va manfaatdor tomonlar bilan barqaror munosabatlarni rivojlantirishda javobgarlikni ta'kidlaydi. Tarixan olib qaraganda, dastlab, ekologik muammolar faqat cheklangan mutaxassislar doirasini qiziqtirgan, insoniyatning o'simlik va hayvonot dunyosiga ta'siriga kam e'tibor berilgan. Biroq, ekologik PR tushunchasi birinchi marta ancha erta 1928-yilda Edvard Bernays tomonidan kiritilgan bo'lib, u sanoat ishlab chiqarishida atrof-muhitni muhofaza qilishni targ'ib qilishda jamoatchilik bilan aloqalarning hal qiluvchi roli ekanligini ta'kidlaydi. Amerikalik antropolog Julian Styuard 1950-yillarda ekologik madaniyat atamasini kiritib, "Ekologik madaniyat odamlarning atrof-muhitning bir qismi ekanligini va ikkalasiga ham ta'sir qilishini tushuntiradi",- degan edi<sup>2</sup>.

1960-yillar global miqyosda ekologik xabardorlik va faollikning paydo bo'lishida hal qiluvchi davr bo'lgan. Ushbu xavotirlar keyingi ekologik harakatlar va ekologik muammolarni hal qilishga qaratilgan xalqaro shartnomalar va qoidalarni ishlab chiqish uchun asos yaratgan. 1962-yilda antropolog Charlz O.Freyk ekologik madaniyatga "har qanday ekotizimning dinamik komponenti sifatida madaniyatning rolini o'rganish" deb ta'rif berdi<sup>3</sup>. Shuningdek, bu davrda ekolog Jey Vesterveld tomonidan 1980-yillarda ishlab chiqarilgan "grinvoshing" atamasi ham paydo bo'lib, bu

<sup>2</sup>Sutton, Mark Q, and E.N. Anderson. "Introduction to Cultural Ecology." Second Edition ed. Lanham, Maryland: Altamira Press, 2013. Print.97-b.

<sup>3</sup>Head, Lesley, and Jennifer Atchison. "Cultural Ecology: Emerging Human-Plant Geographies." Progress in Human Geography (2008). Print.242-b.

korxonalar tomonidan qo'llaniladigan aldamchi ekologik marketing amaliyoti edi. 2011-yilda yashil yuvishning "otasi" sifatida tan olingan Jey Vesterveld, korporatsiyalarning ekologik shiorlar va choralarni faqat foyda uchun ekspluatatsiya qilishini qoraladi.

Ekologik PR ning nazariy asosida ekologiyani saqlash bilan bog'liq xalqaro manbaalar juda ahamiyatlidir. Ularning xronologik tuzulishi quyidagicha :

1. "Silent Spring", Reychel Karson (1962): ushbu yangi kitob pestitsidlardan foydalanish xavfi va uning atrof-muhitga ta'siri haqida jamoatchilikni xabardor qildi, bu esa ko'plab mamlakatlarda ekologik ongni oshirishga va pestitsidlarni taqiqlashga olib keldi.

2. "The Wilderness Act" (1964): Qo'shma Shtatlardagi ushbu qonunchilik cho'l hududlarini himoya qilish va ularning tabiiy holatini saqlashga qaratilgan milliy cho'lni saqlash tizimini o'rnatdi.

3. "Milliy ekologik siyosat to'g'risidagi qonun (NEPA)" (1969): AQSh dagi ushbu muhim ekologik qonun atrof-muhit uchun milliy siyosatni, shu jumladan federal hukumat harakatlarining atrof-muhitga ta'sirini baholash talablarini o'rnatdi.

4. "Stokgolm Deklaratsiyasi" (1972): Birlashgan millatlar tashkilotining insoniyat muhiti bo'yicha konferensiyasida qabul qilingan, ushbu deklaratsiyada global atrof-muhitni muhofaza qilish va barqaror rivojlanish tamoyillari bayon etilgan.

5. "Yo'qolib borayotgan turlar to'g'risidagi qonun" (1973): Qo'shma Shtatlarda qabul qilingan ushbu qonun yo'qolib borayotgan turlar va ularning yashash joylarini muhofaza qilish va tartibga solish choralari orqali himoya qilish va tiklashga qaratilgan.

6. "Monreal protokoli" (1987): ushbu xalqaro shartnoma xloroflorokarbonlar kabi ozonni buzuvchi moddalarni ishlab chiqarish va ulardan foydalanishni to'xtatish orqali ozon qatlamini himoya qilishga qaratilgan.

7. "Atrof-muhit va rivojlanish bo'yicha Rio Deklaratsiyasi" Rio-De-Janeyro, Braziliya, (1992): BMT ning atrof-muhit va rivojlanish bo'yicha konferensiyasida qabul qilingan ushbu deklaratsiyada barqaror rivojlanish va atrof-muhitni muhofaza qilish tamoyillari bayon etilgan.

8. "Kioto protokoli" (1997): iqlim o'zgarishini yumshatish uchun issiqxona gazlari chiqindilarini kamaytirishga, rivojlangan mamlakatlar uchun ularning chiqindilarini kamaytirish bo'yicha majburiy maqsadlarni belgilashga qaratilgan xalqaro shartnoma.

9. "Mingyillik ekotizimni baholash " (2005): dunyo ekotizimlari holatini global baholash biologik xilma-xillik va ekotizim xizmatlarining inson farovonligi va barqarorligi uchun ahamiyati to'g'risida ilmiy dalillar keltirdi.

10. "Parij bitimi" (2015): Birlashgan Millatlar Tashkilotining iqlim o'zgarishi bo'yicha doiraviy Konvensiyasi, xalqaro shartnoma, global isishni sanoatgacha



bo'lgan darajadan 2 darajadan ancha pastgacha cheklashni maqsad qilgan va harorat ko'tarilishini 1,5 darajagacha cheklash bo'yicha sa'y-harakatlarni amalga oshirgan. Ushbu hujjatlar ekologiyani saqlash va himoya qilish, ekologik muammolarni hal qilish va barqarorlikni ta'minlash bo'yicha siyosat, qoidalar va xalqaro shartnomalarni shakllantirishning muhim bosqichlarini aks ettiradi.

Umuman olganda, ekologik PR korporativ ijtimoiy mas'uliyat va barqaror biznes amaliyotini rivojlantirishga qaratilgan bo'lib, ijtimoiy, iqtisodiy va ekologik jihatlarda ijtimoiy rivojlanishning kengroq maqsadiga mos keladi. Bu atrof-muhit bo'yicha tashabbuslarni va yutuqlarini oshkora yetkazish orqali xabardorlikni oshirish, manfaatdor tomonlarning faolligini oshirish va ishonchni mustahkamlashga qaratilgan faoliyatdir. Ekologik PR tashkilotlar va ularning maqsadli auditoriyalari o'rtasida ko'prik bo'lib xizmat qiladi, tabiiylikni saqlash va barqarorlikka qaratilgan tadbirlar orqali o'zaro manfaatli munosabatlarni osonlashtiradi. Uning asosiy maqsadi atrof-muhitni muhofaza qilish va ekologik mas'uliyatni targ'ib qilish, shu bilan jamoatchilik tasavvurlarini shakllantirish va kelajak avlodlar uchun tabiatni asrashga hissa qo'shishdir.

#### **Foydalanilgan adabiyotlar ro'yxati:**

1. Head, Lesley, and Jennifer Atchison. Cultural Ecology: Emerging Human-Plant Geographies. Progress in Human Geography (2008).
2. Sutton, Mark Q, and E.N. Anderson. Introduction to Cultural Ecology. Second Edition ed. Lanham, Maryland: Altamira Press, 2013.
3. N.Qosimova. Ekologik jurnalistika. Darslik.–T., Jurnalistlarni qayta tayyorlash markazi. 2023.
4. [www.instagram.com](http://www.instagram.com)
5. [www.google.com](http://www.google.com)
6. [www.wikipedia.org](http://www.wikipedia.org)

## МЕТОДИКА ПРЕПОДАВАНИЯ НАЧЕРТАТЕЛЬНОЙ ГЕОМЕТРИИ С ПОМОЩЬЮ КОМПЬЮТЕРА

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### Аннотация

*В статье излагается методика преподавания начертательной геометрии с помощью компьютера. Современные информационные технологии позволяют несколько иначе взглянуть и на методику преподавания этой дисциплины, а так же на организацию учебного процесса в целом.*

Начертательная геометрия относится к числу математических наук. Для неё характерна та общность методов, которая свойственна каждой математической науке. Начертательная геометрия, таким образом, является звеном, соединяющим математические науки с техническими и входит в группу общетехнических дисциплин, составляющих основу всякого инженерного образования. Кроме того, изучение начертательной геометрии способствует развитию у студентов пространственных представлений и пространственного воображения - качеств, характеризующих высокий уровень инженерного мышления и необходимых для решения прикладных задач. В процессе изучения начертательной геометрии достигаются и другие цели, расширяется общенаучный кругозор студентов, развиваются навыки логического мышления, внимательность, наблюдательность, аккуратность и другие качества, развитие которых является одной из задач обучения и воспитания в высшей технической школе. К сожалению, изучение начертательной геометрии оказывается достаточно сложным для большинства студентов, так как является абсолютно новой (и по содержанию, и по методу) дисциплиной. У начертательной геометрии нет тесных связей с предметами, изучаемыми в средней школе. Дисциплина рассматривает вначале не какие-то определенные объекты, а абстрактные точки, прямые и плоскости, что требует соответствующей перестройки мышления обучаемых. Чертеж в начертательной геометрии занимает ведущее положение, при чем выполняется он не в аксонометрических, а в ортогональных проекциях и для уяснения требует определенных умственных усилий. [1]

Методика преподавания начертательной геометрии отработывалась в течение десятилетий, но как любая наука, она развивается, обогащается новыми формами и методами. Современные информационные технологии позволяют несколько иначе взглянуть и на методику преподавания этой дисциплины, а так же на организацию учебного процесса в целом. Использование в графической подготовке студентов современных технических средств призвано сделать процесс обучения более доступным, интересным, стимулирующим студента к сознательному пониманию учебного материала.

Одним из важнейших элементов учебно-методического комплекса являются электронные издания, мультимедийные и интерактивные обучающие системы.

Информационные технологии прочно вошли во все сферы человеческой деятельности, и современное образование органично связано с ними. Использование информационных технологий значительно расширяет познавательную деятельность и преподавателя, и студентов. Рекомендуется активно применять наряду с классическими педагогическими технологиями инновационные подходы в обучении: на занятиях использовать программное обеспечение персонального компьютера, многочисленные интернет-ресурсы, мультимедийное сопровождение.

В настоящее время все в большей степени в учебном процессе используются интерактивные доски.

Интерактивные доски аккумулируют в себе все существующие возможности современных информационных технологий. [2]

Использование интерактивной технологии в процессе обучения дает возможность:

- повысить заинтересованность студентов в изучении учебной дисциплины; повысить мотивацию обучения.
- воспитывать информационную культуру студентов.
- использовать различные виды информации для восприятия (текстовая, графическая, видео и звуковая);
- наглядно представлять абстрактные объекты, что самое важное, например, плоскость, представить условие задачи, например пересечение поверхностей и т.д.;
- рассмотреть все вопросы с наглядными иллюстрациями, с большим количеством графических примеров, с указанием алгоритмов геометрических построений.

Современные информационные технологии позволяют реализовать наглядность, мультимедийность и интерактивность обучения.

Наглядность включает в себя различные виды демонстраций, презентаций, показ графического материала в любом количестве.

Мультимедийность добавляет к традиционным методам обучения использование звуковых, видео - анимационных эффектов.

Интерактивность объединяет все вышеперечисленное и позволяет воздействовать на виртуальные объекты информационной среды, помогает внедрять элементы лично ориентированного обучения, предоставляет возможность студентам полнее раскрывать свои способности.

При изучении «Начертательной геометрии» в большом объеме можно демонстрировать графический материал, который при помещении на интерактивную доску позволяет акцентировать внимание на важные детали рисунков. Многие разделы дисциплины напрямую связаны с трехмерным изображениями, и вся информация на интерактивной доске представляет объекты, как на плоскости, так и в пространстве.

Интерактивная доска позволяет в полной мере реализовать дидактические принципы в обучении начертательной геометрии, помогает воспитывать сознательность, активность, самостоятельность студентов. Решение задач в интерактивной информационной среде усиливает прикладную направленность обучения за счет возможности моделирования различных процессов, а использование интерактивности объединяет функции образования, воспитания и развития студентов.

При внедрении интерактивной методики в процессе обучения начертательной геометрии реализуются принципы дидактики: научность, систематичность, последовательность, доступность, прочность усвоения знаний и наглядность. Занятия с использованием интерактивной доски относятся к активным методам обучения, которые способствуют всестороннему развитию личности обучаемых, увеличению познавательного интереса при изучении предмета, повышению заинтересованности студентов в освоении дисциплины, активности на занятии. [3]

Опыт показывает, что на современных системах компьютерной графики, например “Компас”, любая задача начертательной геометрии решается просто, наглядно, точно и быстро. Удалось наладить чтение лекций с применением компьютера и мультимедийного проектора. Это позволило строить все чертежи непосредственно на экране, прямо на глазах у студентов. Качество лекций и доходчивость стали существенно выше. Занятия вызывают большой интерес у учащихся. Известны публикации в методической литературе. Обычно в них главный упор делается на то, что студенты с помощью компьютеров значительно лучше осваивают методы начертательной геометрии.

Преподавание начертательной геометрии с использованием мультимедийной техники давно не является новинкой, несомненно, способствует интенсификации учебного процесса, а вот по поводу доходчивости есть сомнения, подтверждённое опытом ряда кафедр вузов. Если преподаватель заменил чертежи на доске картинками на экране без раздаточных материалов, требующих доработки на лекции, то он просто упростил жизнь себе, но не студентам, которые с интересом посмотрели «кино» и тут же забыли т.к. осталась без подключения важнейшая цепочка в обучении графическим дисциплинам: рука - мозг.[4]

Именно опытные (а не молодые) конструкторы отмечают, что методы начертательной геометрии (часто неосознанно!) позволили решать задачи по компоновке, проектированию обводов, всевозможных лючков и заглушек, расчёту надувных и воздухоопорных сооружений, транспортёров и конвейеров. В космосе успешно работают уникальные редукторы, рассчитанные с использованием методов начертательной геометрии. Нам удалось познакомиться с применением способов преобразования чертежа при составлении алгоритмов программного обеспечения для обработки массивов координат узловых точек профилей зубчатых передач, а также при визуализации процесса зацепления.

Опыт преподавания показывает, что пространственное мышление студентов проще всего вырабатывается при изучении трехмерной компьютерной графики и технического рисования. Их и надо использовать, а не возлагать несбыточные надежды на начертательную геометрию.

Регулярно проводится тестирование пространственного воображения на начало изучения начертательной геометрии и по итогам обучения, которые дают основание не считать, что надежды на начертательную геометрию несбыточны. Это подтверждается историей проведения внутривузовской и городской олимпиады по начертательной геометрии, в ходе которой студенты с интересом решают прикладные задачи, в полной мере ощущают геометрический смысл стандартов ЕСКД, проявляют фантазию при составлении собственных задач.

Следует заметить, что бытующее иногда мнение о том, что аксонометрическая или же перспективная проекция на экране является 3D изображением, является грубой теоретической ошибкой, которая, к сожалению, пустила крепкие корни и прочно обосновалась в профессиональном сленге. Не менее важен и другой факт. Опираясь лишь единственным изображением проектируемой сцены (конструкции и т.п.), через плоский графический интерфейс полнофункционально взаимодействовать с 3D моделью принципиально невозможно. [5]

Именно поэтому процесс проектирования связан с использованием различных видов, занимающих «удобное» положение, покачиванием модели для ощущения ее «пространственности» и другими операциями, подобными этим. Синтез любой задаваемой поверхности подразумевает тот или иной способ двухкартинного (в том числе неявного) формирования ее модели. Даже в условиях безбумажного производства необходим контроль качества выполнения проектных работ. Вряд ли в обозримом будущем удастся изобрести что-то более эффективное для этих целей, чем зрительный анализ изображения (чертежа), вычерченного на плоском листе бумаги в соответствии с требованиями ЕСКД в «неудобных» для понимания ортогональных видах. Перечень операций подобного рода можно продолжать достаточно долго. По сути, в основе всех этих действий лежат теоретические положения все той же начертательной геометрии, которые необходимо понимать. Можно сделать такой вывод, что компьютер и современные информационные технологии позволяют несколько иначе взглянуть и на методику преподавания этой дисциплины, а так же на организацию учебного процесса в целом.

### Список литературы:

1. Значение предмета начертательной геометрия и методика преподавания её в технических вузах. А.А.Каримов Х.Э.Халилова Ф.А.Абдурахимова. 2021.№ 3 “ Polish Science Journal”. Warsaw.Poland.Стр.76-79 .
2. Рузиев Э.И. Научно методические основы подготовки учителей графики в высших учебных заведениях // Автореф.дисс. док. Пед. Наук. Ташкент -2005.
- 3.Черемных Н.Н., Тимофеева Л.Г.// Современные проблемы науки и образование.-2013.- № 6.;
4. Новые педагогические и информационные технологии в системе образования/ Под. Ред. Е.С.Полат – М: Академия, 2001.
5. H.Fry, S. Ketteridge, S.Marshall. Hand book For teaching and Learning in Higher Education. New York, Routledge, 2009
- Дремова Н.В. Сопротивление материалов. В решениях задач с применением программного продукта «Mathcad» Ташкент 7 декабря 2020.с.245.
6. Дремова Н.В. Теоретическая механика. Методическое пособие. Ташкент, ТИТЛП №11 от 25.06.2021 г.с.268.
- 7.Дремова Н.В. Прикладная механика. Учебник и практикум. Методическое пособие. ТИТЛП. 2022 протокол 12 от24.05.22. 411 с.
- 8.Usarov, M., Salokhiddinov, A., Usarov, D. M., Khazratkulov, I., & Dremova, N. (2020, June). To the theory of bending and oscillations of three-layered plates with a compressible filler. In IOP Conference Series: Materials Science and Engineering (Vol. 869, No. 5, p. 052037). IOP Publishing.
9. Дрёмова, Н. В., & Мавлянов, Т. (2014). Математическая модель в задачах динамических систем с гибкими нитями. In *Инновации, качество и сервис в технике и технологиях* (pp. 197-201).
- 10.Ахмедбекова, А. В., Дрёмова, Н. В., & Ортиков, О. А. (2022). Важность преподавания инженерных дисциплин в высших учебных заведениях. *Science and Education*, 3(5), 655-660.

11. Дремова, Н. В. (2022). Влияние динамических параметров берда ткацкого станка на технологию тканеформирования. Монография. LAP LAMBERT Academic Publishing Moldova.
12. Sindarova, S. (2023). *AUTOCAD DASTURIDAN FOYDALANIB TALABALARNING IJODIY IZLANISHLARINI RIVOJLANTIRISH*. Наука и технология в современном мире, 2(14), 38-41.
13. Mirzaliyev, Z. E., Sindarova, S., & Eraliyeva, S. Z. (2021). *Develop students' knowledge, skills and competencies through the use of game technology in the teaching of school drawing*. American Journal of Social and Humanitarian Research, 2(1), 58-62.
14. Sindarova, S. M., Rikhsibaev, U. T., & Khalilova, H. E. (2022). *THE NEED TO RESEARCH AND USE ADVANCED PEDAGOGICAL TECHNOLOGIES IN THE DEVELOPMENT OF STUDENTS' CREATIVE RESEARCH*. Academic research in modern science, 1(12), 34-40.
15. Mirzaliyev, Z., Sindarova, S., & Eraliyeva, S. (2019). *Organization of Independent Work of Students on Drawing for Implementation of the Practice-Oriented Approach in Training*. International Journal of Progressive Sciences and Technologies, 17(1), 297-298.
16. Sindarova, Shoxista Maxammatovna (2021). *O'YINLI TEXNOLOGIYALARDAN FOYDALANISH ORQALI O'QUVCHILARNING BILIM, KO'NIKMA VA MALAKALARINI SHAKLLANTIRISH (CHIZMACHILIK FANI MISOLIDA)*. Oriental renaissance: Innovative, educational, natural and social sciences, 1(11), 686-691.
17. Maxammatovna, S. S. (2022). *Methods of Solving Some Problems of Teaching Engineering Graphics*. Spanish Journal of Innovation and Integrity, 7, 97-102.
18. Рихсибоев, У. Т., Халилова, Х. Э., & Сундарова, Ш. М. (2022). *AutoCAD дастуридан фойдаланиб деталлардаги ўтмиш чизиқларини қуришни автоматлаштириши*. Science and Education, 3(4), 534-541.
19. Bobomurotov, T. G., & Rikhsiboev, U. T. (2022). *Fundamentals Of Designing Triangles Into Sections Equal 5, 7, 9, 11, 13, 15, 17 And 19*. Central Asian Journal of Theoretical and Applied Science, 3(2), 96-101.
20. Makhammatovna, S. S. (2023). *Pedagogical and Psychological Aspects of Improving the Methods of Developing Students' Creative Research*. Web of Semantic: Universal Journal on Innovative Education, 2(3), 37-41.
21. Abdurahimova, F. A., Ibrohimova, D. N. Q., Sindarova, S. M., & Pardayev, M. S. O. G. L. (2022). *Trikotaj mahsulotlar ishlab chiqarish uchun paxta va ipak ipini tayyorlash va foydalanish texnologiyasi*. Science and Education, 3(4), 448-452.
22. Sindarova, S. (2023). *TALABALARDA IJODIY IZLANUVCHANLIKKA XOS SIFATLARNI SHAKILLANTIRISH USULLARI*. Академические исследования в современной науке, 2(11), 23-29.
23. Sindarova Shoxista Maxammatovna, & Maxmudov Abdunabi Abdug'afforovich (2022). *MUHANDISLIK GRAFIKASI FANLARINI O'QITISHDA IJODIY IZLANISH TALAB QILINADIGAN MASALALAR*. Ta'lim fidoyilari, 24(17), 2-275-284.
24. Rixsiboyev, U. T., & Maxammatovna, S. S. (2023). *TEXNOLOGIK VOSITALAR ORQALI INNOVATSION DARS TASHKIL QILISH*. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 20(8), 168-175.
25. Shoxista, S. Abdug'afforovich, MA (2022). *METHODOLOGY OF STUDENT CAPACITY DEVELOPMENT IN TEACHING ENGINEERING GRAPHICS*. Gospodarka i Innowacje, 22, 557-560.
26. Sindarova, S. M. (2021). *IQTIDORLI TALABALAR BILAN SHUG'ULLANISH METODIKASI*. (MUHANDISLIK FANLARI MISOLIDA). Oriental renaissance: Innovative, educational, natural and social sciences, 1(8), 32-39.
27. Shoxista, S. (2023). *MUHANDISLIK GRAFIKASI FANINI O'ZLASHTIRISHDA ZAMONAVIY DASTURDAN FOYDALANISH ORQALI TALABALAR IJODKORLIGINI RIVOJLANTIRISH*. Innovations in Technology and Science Education, 2(9), 780-790.
28. Сундарова, Ш. (2023). *Yosh ijodkorlarni qo'llab quvvatlash va ular bilan ishlashni tashkil qilish*. Общество и инновации, 4(2), 177-181.
29. Makhammatovna, S. S. (2023). *DEVELOPMENT OF ENGINEERING GRAPHICS STUDENTS TO CREATIVITY THROUGH IMAGINATION VIEWS*. Лучшие интеллектуальные исследования, 3(1), 22-26.
30. Takhirovich, A. U., & Makhammatovna, S. S. (2023). *Forming Creativity through the Use of Modern Educational Tools*. International Journal of Formal Education, 2(6), 404-409.

## О‘ЗBEKISTONDA AHOЛИ O‘RTASIDA XROMOSOMA KASALLIKLARINING OLDINI OLISH BO‘YICHA MULOHAZALAR

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**Annotatsiya:** Har bir individ xromosomalardan tashkil topadi. Ayniqsa, odam yaratganning mo‘jizasi o‘laroq, 46 ta xromosomadan iborat ham aqlan, ham jismonan yetuk yaratilgan mavjudotdir. Odamda 22 juft autosoma va 1 juft jinsiy xromosoma bo‘ladi. Ana shu 22 juft xromosomalardagi o‘zgarishlar tug‘ilajak odam farzandida jiddiy nuqsonlar bilan dunyoga kelishiga yoki tug‘ilmay ona qornidayoq nobud bo‘lishining sabablaridan biridir. Ushbu maqolada fan nuqtayi-nazaridan bunday patologiyalarga sabab va yechimlar haqida fikr yuritimiz.

**Kalit so‘zlar:** Klaynfelter, Shershevskiy - Turner, Daun, amnion suyuqligi, amniosintez, UTT, qon tahlillar, homilador ayol yoshi,

O‘zbekiston Respublikasi Prezidentining 01.05.2023 yildagi PQ-140-son “Sog‘liqni saqlash tizimini raqamlashtirishga doir qo‘shimcha chora-tadbirlar to‘g‘risida” Qarorida sog‘liqni saqlash tizimiga ilg‘or raqamli texnologiyalarni tatbiq etish, raqamli sog‘liqni saqlash platformasini yaratish, sohaning barcha darajalaridagi davolash profilaktika muassasalari uchun ma‘lumotlar bazasi kompleksini joriy etish, dasturiy ta‘minot va elektron platformani ishlab chiqish maqsadida, tashqi iqtisodiy faoliyatni rag‘batlantirish, aholini samarali ijtimoiy qo‘llab-quvvatlash masalalari bo‘yicha fikrlar yuritilgan .

Xromosoma kasalliklari tug‘ilajak chaqaloqlar kasalligining 1% ini tashkil etadi. Hozirgi davr tibbiyotida 4-juft xromosomadan 22-juft xromosomagacha bo‘lgan kasalliklar o‘rganilgan va hamon o‘rganilmoqda. Autosoma trisomik, autosoma monosomik va deletsiya kabi turlarga bo‘linadi. Tug‘ilgan 1000 ta chaqaloqdan 1 tasi shunday patologiya bilan tug‘iladi (masalan, Daun sindrommi). Bunday chaqaloqlarning xromosomalari tekshirilganda, ularda quyidagi o‘zgarishlar kuzatilgan:

- ❖ 21-juft xromosomaning bittaga ortishi - DAUN;
- ❖ -18-juft xromosomaning bittaga ortishi - PATAU;
- ❖ -8-juft xromosomaning bittaga ortishi - VARKANI;



❖ -17-juft xromosoma kichik yelkasidagi ayrim genlarning deletsiyasidan kelib chiqadi.

❖ 11- juft xromosoma kichik yelkasidagi ayrim genlarning deletsiyasidan kelib chiqadi.

Har bir holatda o'ziga xos bo'lgan patologiyalar kuzatiladi. Aqliy zaiflik, jismonan ortda qolishlik, qisqa umr (organlar yetishmovchiligi), retino blastoma va bir qancha patologiyalarni sanash mumkin.

*Endi savol tug'iladi, nima sabab?* Javob: hech qanday aniq sabab yo'q. Zamonaviy tibbiyot bir qancha umumiy omillarni keltiradi:

1. Onaning yoshi. 35 yoshdan oshgan ayollarda Daun sindromli bola tug'ish ehtimoli baland, lekin 20-24 yoshli ayollardan ham shunday farzand tug'ilgani ayni haqiqat.

2. Ota-onaning yaqin qarindoshligi. Lekin bir-biriga umuman qarindoshligi bo'lmagan juftliklarda bunday holatlar kuzatilayotganligini tibbiyot rad etolmayapti.

3. Irsiy moyillik. Tibbiyot hamisha javobini topa olmagan holatiga irsiy moyillik degan sabab bilan tushuntirish beradi. Lekin bu degani bu juftliklarning genida aynan shunday kasallik bor degani emas.

4. Teratogen ta'sirlar. Bu qatorga ko'p holatni kiritish mumkin:

❖ oiladagi noxush vaziyatlar;

❖ radiatsion nurlar;

❖ kuchli stress;

❖ infeksiyon kasalliklarning homiladorlikning dastlabki haftalardagi bo'linib ko'payishiga ta'siri;

❖ va yana qandaydir sabablar;

❖ menimcha, bu ishlar YARATGAN tomonidan bo'ladigan ishlardir. Biz esa fan nuqtayi-nazaridan bu savollarga javob izlaymiz va profilaktika qilishni o'z oldimizga maqsad qilganmiz. Bunday kasalliklarning 2000 atrofida turi bor. Endi bunday xromosomik nuqsonli farzand ko'rmaslik uchun tibbiyot nima maslahat beradi deyilganda "amniosintez" tekshiruviga yo'llanma beriladi [3].

Amniyosintez 16-20 haftalar oralig'ida amnion suyuqligidan maxsus usul yordamida amniotik suyuqlikdan 20-25ml suyuqlik olish jarayonidir. Bu jarayon UTT nazorati bilan mahalliy anesteziya orqali amalga oshiriladi.

Tekshiruvda suyuqlikdagi amniosit hujayralardan homilaga taaluqli hujayralarning xromosomalar to'plami son va sifat jihatdan tekshiriladi. Mabodo xromosomada anomaliya aniqlansa, juftliklarga tushuntiriladi.

Perinatal biokimyoviy skrining natijalarida xromosoma kasalliklariga xavf yuqori bo'lganda 35 va undan yuqori yoshli homiladorlarga avlodida irsiy nuqsoni bor holatlarda burun suyagi normadan kichik bo'lishi yoki bo'yin burmasining yuqori bo'lishi va h.k.larda amniosintezga yo'llanma berilishi kerak.

Qarshi ko'rsatma: o'tkir yallig'lanish jarayonining borligi bachadon gipertonusi, bachadon bo'ynidan qon ketishi rezus nomutanosiblik. Natija 5 kun ichida tayyor bo'ladi. Amniosintezning 99% aniqlikda bo'lib xromosoma natijasi normal bo'lsa tekshiruvning noto'g'ri bo'lish ehtimoli juda past [4].

Xulosa qilib aytganimizda respublikaning har bir tuman tibbiyot birlashmalarida genetik - skrining markazlarini pullik bo'lsa ham tashkil qilish zarur deb hisoblayman. Amalda 3-4 million so'm atrofida, shuni narxini maqbullashtirilsa, yaxshi ish bo'lar edi. Chunki sog'lom avlod ertangi qudratli kuchdir. Bunday testlar to'g'risida ko'p shifokor va hamshiralarni xabardor qilish va ular esa homilador ayollarni xabardor qilishligi aholi salomatligi profilaktikasidagi asosiy vazifalarimizdir.

### Adabiyotlar ro'yxati. References

1. O'zbekiston Respublikasi Prezidentining 01.05.2023 yildagi PQ-140-son "Sog'liqni saqlash tizimini raqamlashtirishga doir qo'shimcha chora-tadbirlar to'g'risida" Qarori.
2. "Salomatlik ensiklopediyasi". Toshkent-1985 yil.
3. "Xromosoma kasalliklari". www.hujayra.uz.
4. Yodgorova, Ibodov, Tashpolatov, Uzoqov, Abdunabiyev "Xromosomaga bog'liq gen kasalliklarini oldini olishda amniosintezning ahamiyati.
5. Abdurazakova A. I. THE HARM OF DISHWASHING DETERGENTS AND ITS PREVENTION This article contains information about the work carried out in the Republic of Uzbekistan in maintaining public health, chemical detergents, their types and negative impact on human health and scientif //MODELS AND METHODS FOR INCREASING THE EFFICIENCY OF INNOVATIVE RESEARCH. – 2023. – T. 2. – №. 24. – С. 212-214.
6. Abdurazakova I. A. IDISH YUVISH VOSITALARI ZARARI HAQIDA //Экономика и социум. – 2023. – №. 1-2 (104). – С. 11-13.
7. Abduraxmonovna A. I. KOLLOID ERITMALARNING TIBBIYOTDAGI AHAMIYATI //SCIENCE AND INNOVATION IDEAS IN MODERN EDUCATION. – 2023. – T. 1. – №. 9.
13. Abduraxmonovna A. I. BIOGEN ELEMENTLARNING ODOM ORGANIZMIDAGI BIOLOGIK FAOLLIGI //SCIENCE AND INNOVATION IDEAS IN MODERN EDUCATION. – 2023. – T. 1. – №. 9.
14. Abdurakhmonovna A. I., Ruzmatjonovich A. R. INFECTIOUS DISEASES AND THEIR PREVENTION //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2023. – T. 1. – №. 8. – С. 1-4.
8. Абдуразакова И. А. ЭКОНОМИЧЕСКАЯ ЭФФЕКТИВНОСТЬ ПРОИЗВОДСТВА КРАСНЫХ ДОЖДЕВЫХ ЧЕРВЕЙ В КАЛИФОРНИИ //Экономика и социум. – 2023. – №. 12 (115)-1. – С. 901-905
9. Rajabboyeva Dilfuzaxon Abdumalik qizi, & Umarova Musharraf Yunusaliyevna. (2024). AYOLLAR GINEKOLOGIYASI, HAYZ SIKLI UNDAGI KASALLIKLARNI DAVOLASH USULLARI VA ULARNI DAVOLASHDAGI HOZIRGI ZAMON INNOVATSIYALARI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 44(7), 142–147.
10. Умарова , М. (2023). ГАВҲАРШОДБЕГИМ ТУҒИЛГАН ОИЛА ВА УНИНГ АМИР ТЕМУР ДАВРИДАГИ ҲАЁТИ. *Interpretation and Researches*
11. Усмонов, Б. А. ., & Умарова, М. . (2022). XV АСР ЎРТАЛАРИДА ХУРОСОНДА ЮЗ БЕРГАН СИЁСИЙ ЖАРАЁНЛАРДА ГАВҲАРШОДБЕГИМНИНГ

ТУТГАН ЎРНИ. *IJTIMOIIY FANLARDA INNOVASIYA ONLAYN ILMIY JURNALI*, 2(10), 110–113.

12. Usmonov, S., & Isroilov, S. (2023). CHAQALOQLARDA QORIN DAM BO'LISHINING SABABLARI, DAVOLASH USULLARI. *Евразийский журнал академических исследований*, 3(4 Part 2), 196-199.

13. Abdusubxon o'g'li, U. S. (2023). YURAK ISHEMIK KASALLIKLARI VA ULARNI OLDINI OLIHNING ZAMONAVIY USULLARI. *PRINCIPAL ISSUES OF SCIENTIFIC RESEARCH AND MODERN EDUCATION*, 2(6).

14. Abdusubxon o'g'li, U. S. (2023). BUYRAK TOSH KASALLIKLARINI HOSIL BO'LISHIDA GIPODINAMIYANING TA'SIRI. *PRINCIPAL ISSUES OF SCIENTIFIC RESEARCH AND MODERN EDUCATION*, 2(6).

15. Usmonov, S., & Alisherjonova, F. (2023). INSON TANASIDA BO'LADIGAN ELEKTR HODISALARI. *Евразийский журнал академических исследований*, 3(4 Part 2), 200-203.

16. Isroil o'g'li, X. M., & Abdusubxon o'g'li, U. S. (2023, April). GIPERTONIYA KELIB CHIQISHI SABABLARI. In *INTERNATIONAL SCIENTIFIC-PRACTICAL CONFERENCE ON "MODERN EDUCATION: PROBLEMS AND SOLUTIONS"* (Vol. 2, No. 5).

17. Abdusubxon o'g'li U. S. et al. BOLALARDA GASTROENTRITNING NAMOYON BO'LISHI //INTERNATIONAL SCIENTIFIC-PRACTICAL CONFERENCE ON "MODERN EDUCATION: PROBLEMS AND SOLUTIONS". – 2023. – Т. 2. – №. 5.

18. Abdusubxon o'g'li, U. S. (2023). KAM HARAKATLIK NATIJASIDA KELIB CHIQADIGAN KASALLIKLARNI XALQ TABOBATI BILAN DAVOLASHNING TOP 10 TA USULI. *SCIENCE AND PEDAGOGY IN THE MODERN WORLD: PROBLEMS AND SOLUTIONS*, 1(3).

19. Abdusubxon o'g'li U. S. et al. GIPERTONIYA KASALLIGINI RIVOJLANISHINI OLDINI OLIHNING ENG YAXSHI USULLARI //SCIENCE AND PEDAGOGY IN THE MODERN WORLD: PROBLEMS AND SOLUTIONS. – 2023. – Т. 1. – №. 3.

20. Abdusubxon o'g'li U. S. et al. QONNI SUYULTIRADIGAN TOP-10 MAHSULOT //SCIENCE AND PEDAGOGY IN THE MODERN WORLD: PROBLEMS AND SOLUTIONS. – 2023. – Т. 1. – №. 3.

21. Tiguntsev S. G., Usmonov S. B., Shafarevich K. V. Determination of the Damage Location on Multiphase and Multi-Wire Power Transmission Lines //2023 5th International Youth Conference on Radio Electronics, Electrical and Power Engineering (REEPE). – IEEE, 2023. – Т. 5. – С. 1-4.

22. Abdusubxon o'g'li U. S., Vaxobjon o'g'li Q. A. BOLALARDA ENG KO'P UCHRAYDIGAN RAXIT KASALLIGI //STUDIES IN ECONOMICS AND EDUCATION IN THE MODERN WORLD. – 2023. – Т. 2. – №. 5.

23. Abdusubxon o'g'li U. S. ELEKTROMAGNIT MAYDONINING ORGANIZMGA TA'SIRI //SCIENCE AND INNOVATION IDEAS IN MODERN EDUCATION. – 2023. – Т. 1. – №. 2.

24. Abdusubxon o'g'li U. S. et al. KONDILOMA VIRUSLARINI DAVOLASHDA KRIOGEN TERAPIYA //PRINCIPAL ISSUES OF SCIENTIFIC RESEARCH AND MODERN EDUCATION. – 2023. – Т. 2. – №.

## BUYRAK KASALLIKLARI ALOMATLARI VA ULRNI DAVOLASH

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**Annotatsiya:** Inson organizmidagi buyrak qonni filtrlaydi, moddalar almashishi natijasida hosil bo'ladigan zararli mahsulotlarni organizmdan tashqariga chiqaradi. Inson organizmida kislota-ishqormuvozonatini saqlaydi, suyuqlik elektrolitlar muvozanatini soladi, qon bosimi va qon hajmini tog'rilaydi, gormon va enzimlar ishlab chiqadi. Kundalik hayotimizdagi odatlarimiz zararlashini va natijasida buyraklarimizda qanday kasalliklar kelib chiqishi to'g'risida fikir mulohaza yuritamiz.

**Kalit so'zlar:** Ayiruvning ahamiyati, Pielonefrit, Glomerulinefrit, Urolitiaz, Nefrolitiaz, Gidronefroz, Nefron, Prostata adenomasi, Buyrak nefroptoz, polikistozi, distopiyasi, Albuminuriya, Ksantogranulematoz pielonefrit,

Buyrak -odam va umurtqali hayvonlarda siydik hosil qiluvchi va uni ajratuvchi juft a'zo; loviya shaklida, qorin bo'shlig'ining orqa tomonida, umurtqa pog'onasi bel qismining ikki yonida joylashgan, qorin parda Buyraklarning old yuzasini qoplab turadi. Old va orqa yuzalari yassilangan, har bir B.ning bo'yi 10-12 sm, eni 6 sm, yo'g'onligi 3-4 sm, og'irligi o'rtacha 140-150 g. O'ng B. tepasida jigar borligi tufayli, chap Buyraka nisbatan bir oz pastroqsa yotadi. Buyranning yuqori uchi umurtqaga yaqin, pastki uchi esa umurtqadan uzoqroq bo'ladi. Buyrakning umurtqaga qaragan ichki tomoni o'rtasida botik joy bo'lib, u buyrak darvozasi deyiladi. Buyrakning botiq yuzasiga buyrak jomi taqalib turadi. Buyrak darvozasidan buyrak arteriyasi va nervlar kirib, vena, limfa tomirlari va siydik yo'li chiqadi. Bularning hammasi birgalikda Buyrak oyoqchasi deb ataladi. Buyrak ichida buyrak usti bezlari bor. Moddalar almashinuvi natijasida hosil bo'ladigan chiqindi va zararli moddalar organizmdan Buyrak orqali chiqib ketadi. Shu bilan birga Buyrak organizm uchun zarur miqdordagi suv va mineral tuzlarni saqlab, tashkariga chiqarmay qo'yadi, organizmning ichki muhitini ta'minlaydi. B. siydik bilan birgalikda siydikchil (mochevina), siydik kislota, tuzlar va suvni chiqarib turadi. Buyrakda biologik faol moddalar (renin, prostoglandin va boshqalar) hosil bo'lib, ular qon tarkibi, qon ivishi va kon bosimini maromga solib turadi. Buyrakni fibroz parda, yog kapsulasi va biriktiruvchi to'qimadan iborat fassiyalar o'rab, ushlab turadi. Buyrak po'stloq va mag'iz qismdan iborat. Po'stloq qismining qalinligi 4-13 mm keladi. Bu qism ostida mag'iz kismi joylashgan; u 12-15 ta konussimon buyrak piramidalaridan iborat. Yondosh piramidalar orasiga po'stloq qism suqilib kirgan bo'lib, Buyrak ustunchalarini hosil qiladi. Piramidalar o'rtacha 1

mln. mayda kanalcha (nefron)lardan iborat, shu nefronlarda siydik hosil bo‘ladi, bunda suyaklik qondan sizib o‘tadi (filtrlanadi), qayta so‘riladi va sekresiya ro‘y beradi. Har bir nefron Buyrak tanachalari bilan siydik kanalchalaridan iborat. Siydik Buyrak tanachalarida filtratsiya yo‘li bilan paydo bo‘ladi. Buyrak tanachasi qo‘sh devorli kapsula (Shumlyanskiy-Boumen kapsulasi) bo‘lib, devorlari orasida yoriqsimon bo‘shliq bor; siydik chiquvchi naycha (kanalcha) shu bo‘shliqdan boshlanadi. Kapsulada mayda qon tomirlar ko‘ptokchasi (kalavasi) bor. Siydik kanalchalarida birlamchi siydik qayta so‘riladi, konsentratsiyasi oshadi va shakllangan siydikka aylanadi. Siydik kanalchalari qo‘shilib, yirikroq yig‘uvchi kanalchalar hosil qiladi. Siydik kanalchalardan buyrakning avval kichik, keyin katta kosachalariga va nihoyat buyrak jomiga o‘tadi, undan siydik yo‘li orqali qovuqqa quyiladi. Buyrakdan o‘rtacha 1,5 l siydik ajralishi uchun organizmdagi qon Buyrakdan bir kechakunduzda o‘rtacha 360 marta o‘tib, yetarlicha tozalanib turadi. Buning uchun Buyrakka keladigan qon miqdori va bosimi doimo yetarli bo‘lishi kerak. Agar qon bosimi pasayib Buyrakka qon kam kelsa, u renin modda ajratib qon bosimini oshiradi. Bu holat surunkali qaytarilsa, qon tomirlar devorining sikilishi tufayli qon bosimi ko‘tarilib, Buyrak bosimi paydo bo‘ladi. Buyrak rivojlanishida nefron naychasining uchi berk bo‘lsa, buyrak istisqosi kuzatiladi. Buyrak kasalliklarini nefrologiya o‘rganadi. Buyrak yetishmovchiligi — buyrak faoliyatining pasayishi sindromi. To‘satdan (o‘tkir) yoki sekin-asta (surunkali) ro‘y beradi. Ko‘p qon yo‘qotish, mexanik shikastlanish tufayli qon bosimining pasayib ketishi yoki bemorning qon guruhiga moye kelmaydigan qon quyish, tok urishi, septik abort va boshqa; dorilar va boshqa metall tuzlaridan zaharlanish oqibatida buyrak parenximasining shikastlanishi; siydik yo‘lining o‘sma yoki buyrak toshlari bilan bekilib qolishi, shikastlanish tufayli ikkala buyrak zararlanishi o‘tkir Buyrak yetishmovchiligiga sabab bo‘lishi mumkin. O‘tkir Buyrak yetishmovchiligida buyrak faoliyati, xususan azot, suvtuz va boshqa moddalar almashinuvi izdan chiqadi, bunda siydik kam ajraladi, ogir hollarda butunlay ajralmay qoladi (anuriya, uremiya). Qonda siydikchil (mochevina) miqdori ko‘payadi, organizmning siydikdan zaharlanishi kuzatiladi; teri osti, qorin va ko‘krak qafasida suyuqlik to‘planadi (suvdan semirish). Surunkali Buyrak yetishmovchiligi asosan buyrak va siydik yo‘lining uzoq davom etadigan kasalliklari (glomerulonefrit, piyelonefrit, sil, buyraktosh kasalligi va boshqalar) oqibati bo‘lib, buyrak to‘qimasining bujmayishi (nefroskleroz) yoki xaltasimon kengayishi (gidronefroz) bilan davom etadi. Tashnalik, og‘iz qurishi, teri quruksab qichishishi, qusish, kamqonlik; nafas a‘zolari, yuraktomirlar va me‘daichak faoliyatining buzilishi alomatlarini kuzatiladi. Siydikning nisbiy zichligi kamayib, miqdori esa ortadi. Davosi: o‘tkir Buyrak yetishmovchiligida bemor kasalxonada davolanadi ("sun‘iy buyrak" apparati bilan qon tozalanadi, kislotaishqor, suvtuz almashinuvi rostlanadi); surunkali shaklida parhez va dori-darmonlar qo‘llaniladi, gemodializ o‘tkaziladi. Kechiktirilgan

hollarda buyrak ko'chirib o'tkaziladi Ko'pincha bemor o'zida buyrak kasalligining o'tkazib yuborilgan bosqichi mavjudligini tasodifan blib qoladi, u shifokor huzuriga mutlaqo boshqa muammodan shikoyat qilib kelgan bo'ladi. Shifokorlar buyraklarni hatto o'zaro "soqov a'zolar" deb ham atashadi, chunki kasallikning dastlabki belgilari ayrim vaqtlarda buyraklar ishdan chiqqan vaqtda yuzaga keladi. Albatta, shifokorlar kasallik mavjudligidan qon tahlilini ko'rish vqtida shubha qilishlari mumkin, ammo buning uchun bu tahlil qo'lga tushishi kerak, bu esa juda kamdan-kam hollarda sodir bo'ladi. Aksariyat hollarda bemorlar bunday turdagi shifokor mavjudligini birinchi marta tashxisi bilan kasalxonaga tushganda bilishadi. Gap shundaki, buyraklar normal ishlamay qo'yganda, qonda kalsiy miqdori keskin ravishda oshadi, kalsiy esa qon tomir devorlarida cho'kib, to'planish xususiyatiga ega. Buning natijasida qon tomir bo'shlig'i torayadi. Shu sababli, buyrak yetishmovchiligi bo'lgan bemorlarning ko'proq qismi 30-40 yoshida vafot etadi. Bunday holatda o'lim sababi yurak-qon tomir kasalliklari hisoblanadi.

**Pielonefrit**- surunkali buyrak kasalligi. Kasallik urologik amaliyotda keng tarqalgan. Urologga qilingan barcha tashriflar holatlarining 2/3 qismi o'tkir yoki surunkali pielonefrit kasalligiga tashxis qo'yish bilan yakunlanadi.

Glomerulonefrit- bu asosan buyrak koptokchalarining shikastlanishi bilan kechadigan immunoyallig'lanishli kasallik. Patologik jarayonga shuningdek buyrak naylari va interstiyalar ham jalb etiladi. Patologiya ham birlamchi bo'lishi, ham boshqa tizimli kasalliklar fonida rivojlanishi mumkin. Ko'pincha glomerulonefritdan bolalar aziyat chekadi, bu kasallik siydik tizimining infeksiyon kasalliklaridan keyin ikkinchi o'rinda turadi. Bundan tashqari, glomerulonefrit boshqa urologik kasalliklarga qaraganda ko'proq nogironlikka olib keladi, chunki u buyrak yetishmovchiligining erta rivojlanishini keltirib chiqaradi. O'tkir buyrak yetishmovchiligi - bu buyrak faoliyatining buzilishi bo'lib, ba'zi hollarda bu jarayonni ortga qaytarish mumkin. Kasallik a'zoning jiddiy darajada yoki to'liq ishdan chiqishi bilan tavsiflanadi. Buyraklar bajaradigan barcha funktsiyalar buziladi: ajratuvchi, sekretor, filtrlash. Siydik tosh kasalligi (UROLITIAZ) bu buyraklarda toshlar shakillanishi bilan kechadigan kasallik hisoblanadi. Agar tosh faqat buyraklarning o'zida bo'lsa, buyrak-tosh kasalligi (nefrolitiaz) haqida gapiriladi. Ammo ko'pincha toshlar siydik pufagi va boshqa a'zolarida ham uchraydi. Ushbu kasallik keng tarqalgan, asosan 25-50 yoshli bemorlarda tashxislanadi.

Gidronefroz – siydik passaji buzilishi hissasiga binoan kosacha-jom kompleksining kengayishi sababli rivojlanadigan buyrak to'qimasining atrofiyasidir. 60 yoshgacha kasallikka ko'proq ayollar chalinadi, 60 yoshdan keyin esa erkaklar. Bu erkaklarda prostata adenomasi yoki prostata saratoni rivojlanishi bilan bog'liq. Nefron va buyrak naylarining atrofiyasi kasallikning yakunidir. Kasallik siydik chiqishi qiyinligi tufayli siydik yo'llarida bosimning oshishi, filtratsiya funktsiyasi zararlanishi

va a'zoning qon bilan ta'minlanishi buzilishidan boshlanadi. Buyrak nefroptozi a'zoning patologik harakatchanligi -uning o'rnini vertical holatda 2 sm, gorizontol holatda 3 smdan ko'proqqa siljishi bilan tavsiflanadi.

Buyrak polikistozi a'zolarning tug'ma anomaliyalariga mansub bo'lib, ulardan ko'plab kislotalar hosil bo'lishi bilan tavsiflanadi. Patologik jarayonga har ikkala buyraklar ham jalb qilinadi. Buyrak distopiyasi — bu buyrak joylashuvining buzilishidir. Ushbu anomaliya rivojlanishning tug'ma nuqsonlariga mansub. Buyraklar past joylashishi, chanoq bo'shlig'i, ko'krak qafasiga siljigan bo'lishi mumkin. Buyrakda bulardan tashqari boshqa kasalliklar ham uchraydi, bularga quyidagilarni keltirish mumkin: **Albuminuriya**- proteinuriya, siydikda oqsil bo'lishi. **Ksantogranulematoz pielonefrit** - buyrak to'qimasi yallig'lanishining o'ta kamyob shakli bo'lib, unda ko'p miqdorda makrofaglar va limfoid hujayralar paydo bo'lishi bilan tavsiflanadi. **Nefrit** – turli etiopatogenezli buyrakning yallig'lanishli kasalliklari. **Nefritik sindrom** — buyrak kasalliklari fonida rivojlanadigan simptomakompleks. **Nefropatiya** — buyrak ko'ptokcha apparati va parenximasining turli etiologiyali shikastlanishlari. **Nefroskleroz** — buyrak to'qimasining biriktiruvchi to'qima bilan almashishi bilan tavsiflanadigan patologiya. **Nefrotik sindrom** — generalizatsiyalangan shishlar, massiv proteinuriya, gipoproteinemiya va gipoalbuminemiya, giperlipidemiya bilan tavsiflanadigan holat. **Pionefroz** — yiringli-destruktiv pielonefritning terminal bosqichi hisoblanadigan kasallik. **Buyrak tubulyar atsidozi** — raxitsimon kasalliklardan biri bo'lib, doimiy metabolik atsidoz, qon zardobida xlor konsentratsiyasining oshishi va past darajadagi bikarbonatlar bilan tavsiflanadi. **Denta sindromi** — Xp11.22 xromosomasida joylashgan xlorid kanal geni (CLCH5-gen) mutatsiyasi tomonidan chaqirilgan kasallik. **Tubulopatiyalar** — organik moddalar va elektrolitlarning naychali transporti buzilishi bilan kechadigan kasalliklar guruhi. **Sistinuriya** — sistin aminokislota reabsorbtsiyasi buzilishi va uning siydik bilan chiqib ketishi ko'payishi. **Emfizematoz pielonefrit** — o'tkir yiringli pielonefritning kamyob shakli bo'lib, buyrak to'qimasida glyukozani kislota va CO<sub>2</sub> ga parchalaydigan mikroorganizmlar tomonidan chaqiriladi. **IgA-nefropatiya** — mezangial hujayralarning o'choqli yoki diffuz proliferatsiyasi bilan tavsiflanadigan kasallik.

**XULOSA:** Buyrak inson tanasining muhim organlaridan biridir. U diafragma ostida va umurtqa pog'onasining ikkala tomonida joylashgan. U keng loviya shaklida, biri chapda, biri o'ngda. Har bir buyrakning vazni 120-150 gramm, uzunligi 10-12 sm, kengligi 5-6 sm va qalinligi 3 sm. ayollarning buyraklari odatda kichikroq. Buyraklarning asosiy vazifalari: birinchidan, organizmdagi ortiqcha suvni chiqarish; ikkinchidan, organizmdan toksinlarni olib tashlash; uchinchidan, qon bosimi barqarorligini saqlash, kamqonlik va suyak kasalliklarini oldini olish kabi muhim endokrin funktsiyalarga ega bo'lish. Bir marta buyrak kasalligi bilan og'riganida,

siydikning anormal chiqishi (poliuriya yoki oliguriya), anormal siyish (chastotasi, nokturiya va boshqalar), gematuriya, proteinuriya, shish va yuqori qon bosimi va boshqalar kabi quyidagi holatlar yuzaga kelishi mumkin. Bunga arziydi. buyraklar kuchli zahiraviy quvvatga ega ekanligini eslatib, funktsiyaning yarmi buzilgan bo'lsa ham, bemor asemptomatik bo'lishi mumkin. Shuning uchun, alomatlarsiz buyrak kasalligi yo'q deb o'ylay olmaymiz va biz hushyorlikni bo'shashtirishimiz mumkin, bu juda xavflidir. Agar sizda borligiga shubha bo'lsa [buyrak kasalligi](#) gematuriya va siydik tahlilida aniqlangan proteinuriya kabi sog'liqni saqlash tekshiruvi paytida, hatto alomatlar bo'lmasa ham, erta tashxis qo'yish va erta davolanish uchun nefrologiya bo'limiga murojaat qilishingiz kerak. Buyrak kasalligining dahshatli bo'lishining sababi shundaki, kasallikning dastlabki bosqichida alomatlar juda engil yoki umuman yo'q, shuning uchun ko'pchilik bemorlar sezilarli darajada kamaygan. Shuning uchun lezyonlarning oldini olish va erta aniqlash juda muhimdir. Buyrak kasalliklari paydo bo'lishining oldini olish uchun biz birinchi navbatda yuqori xavfli guruhlardan boshlashimiz, imkon qadar tezroq buyraklarni himoya qilish choralari ko'rishimiz va buyraklarga zarar etkazadigan turli xavf omillaridan qochishimiz kerak, masalan, qon bosimi va qon shakarini qattiq nazorat qilish, va nefrotoksik dorilarni qo'llashdan qochishga harakat qiling. Ikkinchidan, nozik belgilarga e'tibor berish kerak va asemptomatik ko'pikli siydik, siydik rangi o'zgarishi, tungi va hokazolar mavjud bo'lganda, o'z vaqtida tibbiy yordamga murojaat qilish kerak. Uchinchidan, muntazam tibbiy ko'riklar, yillik tekshiruv, siydik tartibi va qon bosimi ham buyrak kasalliklarini erta tashxislashda yordam beradi.

### FOYDALANILGAN ADABIYOTLAR

1. Хомидчонова Ш. Х., Мирзажонова С. А. Основные Методы Определения Составы Тела //Miasto Przyszłości. – 2023. – Т. 36. – С. 181-185.
2. Мирзажонова С., Муйсинжонов Ж. ОСЛОЖНЕНИЯ САХАРНОГО ДИАБЕТА //Евразийский журнал медицинских и естественных наук. – 2023. – Т. 3. – №. 6. – С. 31-34.
3. Odilov X. A., Mirzajonova S. A., Rustamov A. ATEROSKLEROZ TIBBIYOTDAGI DOLZARB MUAMMO VA UNGA AMALIY TAVSIYALAR //Engineering problems and innovations. – 2023.
4. Ganizhonov P. H., Mirzazhonova S. A. Physiological aspects of morphofunctional changes in the digestive tract under stress (literature review) //International Multidisciplinary Journal for Research & Development. – 2023. – Т. 10. – №. 12.
5. Мирзажонова С. А., Хомидчонова Ш. ТИББИЁТ ОЛИЙГОҲЛАРИДА ФУНДАМЕНТАЛ ФАНЛАРНИ ЎҚИТИШДА SUNRAV BOOK EDITOR ДАСТУРИДАН ФОЙДАЛАНИШНИНГ АҲАМИЯТИ //PEDAGOG. – 2023. – Т. 6. – №. 6. – С. 470-474.
6. Мирзажонова С. А., Ганижонов П. Х. ИССЛЕДОВАНИЮ ЭФФЕКТИВНОСТИ ЦИКЛОСПОРИНА А В ПРОФИЛАКТИКЕ



- АУТОИММУННОЙ ГЕМОЛИТИЧЕСКОЙ АНЕМИИ У МЫШЕЙ  
//THEORY OF SCIENTIFIC RESEARCHES OF WHOLE WORLD. – 2024. – Т. 4. – №. 1. – С. 11-13.
7. Мирзажонова С. А. и др. ИЗМЕНЕНИЯ В ПРОЦЕССАХ ГИПОКСИИ В ОРГАНИЗМЕ ПРИ НАЛИЧИИ ГЕМИЧЕСКОЙ АНЕМИИ У КРЫС  
//TANQIDIY NAZAR, TANLILIY TAFAKKUR VA INNOVATSION G'UYALAR. – 2023. – Т. 1. – №. 1. – С. 50-51.
8. Mirzajonova S. IMPORTANCE OF FUNDAMENTAL SCIENCES IN MEDICINE //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 161-164.
9. Мирзажонова С. А. ЎПКА–НАФАСДАН ТАШҚАРИ.. //INTERDISCIPLINE INNOVATION AND SCIENTIFIC RESEARCH CONFERENCE. – 2023. – Т. 1. – №. 10. – С. 125-129.
10. . Rajabboyeva Dilfuzaxon Abdumalik qizi, & Umarova Musharraf Yunusaliyevna. (2024). AYOLLAR GINEKOLOGIYASI, HAYZ SIKLI UNDAGI KASALLIKLARNI DAVOLASH USULLARI VA ULARNI DAVOLASHDAGI HOZIRGI ZAMON INNOVATSIYALARI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 44(7), 142–147.
11. Умарова , М. (2023). ГАВҲАРШОДБЕГИМ ТУҒИЛГАН ОИЛА ВА УНИНГ АМИР ТЕМУР ДАВРИДАГИ ҲАЁТИ. *Interpretation and Researches*
12. Усмонов, Б. А. ., & Умарова, М. . (2022). XV АСР ЎРТАЛАРИДА ХУРОСОНДА ЮЗ БЕРГАН СИЁСИЙ ЖАРАЁНЛАРДА ГАВҲАРШОДБЕГИМНИНГ ТУТГАН ЎРНИ. *IJTIMOY FANLARDA INNOVASIYA ONLAYN ILMIY JURNALI*, 2(10), 110–113.

## BOLALAR FAOLIYATINI TASHKIL ETISHDA TARBIYACHINING O'RNI VA RIVOJLANTIRISH MARKAZLARIDA BOLALARNING MUSTAQIL FAOLIYATI UCHUN SHAROITLAR YARATISH

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**Annotatsiya:** Maqolada maktabgacha tarbiya yoshidagi bolalar faoliyatini tashkil etish, faoliyatni tashkil etishda tarbiyachining o'rni va rivojlantirish markazlarida bolalar faoliyatini tashkil etish masalasi haqida ma'lumotlar keltirilgan.

**Ka'lit so'zlar:** bolalar, tarbiya, tarbiyachi, tarbiyalanuvchi, markaz, o'yin faoliyati, . mehnat faoliyati.

### KIRISH

O'zbekiston Respublikasi Prezidenti Sh. Mirziyoyev "Zamonaviy maktabgacha ta'lim sog'lom va barkamol avlodni voyaga yetkazishda muhim o'rin tutadi" deya ta'kidlaydi. O'zbekiston Respublikasi Prezidenti Sh.M.Mirziyoyevning "2017-2021-yillarda maktabgacha ta'lim tizimini yanada takomilashtirish chora – tadbirlari to'g'risida" gi qarori qabul qilindi. O'zbekiston Respublikasi Prezidenti Sh.M.Mirziyoyev rahbarligida 2017- yil 16- avgust kuni bo'lin o'tgan yig'ilishda maktabgacha ta'lim tizimini tarkibiy jihatdan tubdan isloh qilish, mazkur tashkilotlarga bolalarni to'la qamrab olish bo'yicha muhim vazifalar qo'yildi. Tarixdan ijtimoiy maktabgacha tarbiyaning rivojlanishi bilan birgalikda tarbiyalash dasturi ham takomillashib boradi. Maktabgacha ta'lim tashkilotlarning ishini tashkil etish, unng mazmuni va metodlari yuzasidan asosiy ko'rsatmalar 1919 – yilda Maorif xalq komissiyalarining maktabgacha tarbiya bo'limining vazifasi "Oila o'chog'I va bolalar bog'chasini yuritish yuzasidan instruksiya"da bayon qilib berilgan edi. Maktabgacha tarbiya sifatini yaxshilash uchun bolalar bog'chasining ishining ilmiy asoslangan dasturini myaratish kata ahamiyatga ega bo'ldi. Maktabgacha tarbiyachi – bu birinchi navbatda, mavjud muammolarni hal qilishda yuzaga keladigan turli tashabbuslar orqali dunyoni mustaqil ravishda o'rganish va o'zgartirishga intiladigan faol tarbiyachi bo'lishi kerak. Har bir bolaning individualligi va bolalar tashabbusini qo'llab – quvvatlashga yordam beradi. Har xil turdagi ishlab chiqarish faoliyatiga jalb qilish – chizish, modellashtirish, loyihalash, materialning "qarshiligini bartaraf etish uchun harakat talab qladigan, bu yerda o'zboshimchalik rivojlanadi, nutqning rejalashtirish funksiyasi. Har bir faoliyat avtonomiya va tashabbusning turli tarkibiy qismlarining rivojlanishiga o'ziga xos ta'sir ko'rsatadi:

1. O'yin faoliyati va tashabbusni rivojlantirishga yordam beradi. Bu boladan individuallik, zukkolik, topqirlik, ijodkorlik va mustaqillikni talab qiladi.

2. Mehnat faoliyati – harakatning muvofiqligi va ongliligi natijaga ershishdagi qat’iylilikni shakllantirish. Boshlang’ich mehnat topshiriqlarini bajarib, bolalar birgaikda ishlashni boshlaydilar, o’zaro vazifalarni taqsimlaydilar va bir – birlari bilan muzokaralar olib boradilar.

3. Ishlab chiqarish faoliyatida bolaning kattalarda mustaqilligi, o’zini namoyon qilishning zrrur vositalarini topshga intilishi shakllanadi.

4. Muloqot( bolalar – bolalar, bolalar – ota – onalar).

5. O’z – o’zini tashkil etish izlanish va ijodiy yondashishga qaratilgan faoliyat.

Bolalarda mustaqillikni shakllantirish muammosi bugungi kun pedagogikasining eng dolzarb muammolaridan biri bo’lib kelgan va shupedagoglar o’z faoliyatini amlnday bo’lib qolmoqda. Hayot o’zining barcha ko’rinishlarida toboro rang – barang bo’lib bormoqda, odamning qoliblashgan, odatiy harakatlardan foydalanish talab etilmaydi, balki kata va kichik muammolarni hal qilishga jodiy yondashish, mustaqil ravishda yangi muammolarni qo’yish va hal qilish qobiliyati bolalar qanchalik kichik bo’lsa, ularning mustaqil harakat qilish qobiliyati shunchalik zaif bo’ladi. Ular o’zlarini nazorat qila olmaydilar, shuning uchun ular boshqalarga taqlid qilishadi va har doim ham bu misol bolaga ijobiy ta’sir ko’rsatmaydi. Uzoq vaqt davomida bola hali odam emas degan fikr bor edi. Kichkina bola – bu mustaqil fikrlay olmaydigan, harakat qila olmaydigan, kattalarning xohishiga to’g’ri kelmaydigan istaklarga ega bo’lmagan past mavjudotdir. Bola kattalar tomonidan qo’yiladigan talablarni o’z tashabbusi va musqaqilligini ko’rsatmasdan bajarishi kerak. Bolaga tashabbusni rivojlantirish uchun oddiy topshiriqlar berish kerak. Birinchidan ”Men qila olmayman” degan qo’rquvni yo’q qiling, bolalarda tashabbuskorlikni rivojlantiring. Ikkinchidan qiziqarli yoki biror narsa qilishda shaxsning shaxsiy qiziqishi bo’lgan topshiriqlarni bering. Uchinchidan tashabbuslarni qo’llab quvvatlang.

Rivojlantirish markazlarida bolalarning mustaqil faoliyati uchun sharoit yaratish ”kattalar va bolalar tashabbusining muvozanatiga kattalar hukmronligi va bolaning erkinligi sohaslarini qat’iy ajratish orqali emas, balki sheriklik faoliyatining moslashlashuvchan dizayni orqali erishadi, bunda ikkala tomon ham ta’lim jarayonining markaziy figurasi sifatida ishlaydi va bu yerda maktabgacha yoshdagi bolalarning muayyan guruhlarini pedagogic manfaatlari qarama – qarshi emas balki bir – biriga mos keladi. Rivojlanish markazlaridagi tematik, didaktik materiallar bolaning ehtiyojlari va manfaatlarini qondirishga xizmat qilishi kerak. Markazlarning dizayni bolalar uchun jozibali bo’lishi kerak va mustaqil faoliyatga bo’lgan istakni keltirib chiqarishi kerak. Guruh xonasi rivojlanish markazlarini yaratishda o’yin faoliyatining yetakchi ro’lini hisobga olish kerak. Maktabgacha ta’lim sohasida Davlat o’quv dasturini amalga oshiruvchi pedagog bola shaxsiga hurmat ko’rsatgan holda, ta’lim va tarbiya jarayonini dastur tamoyillariga muvofiq tashkil qiladi. Pedagog ta’lim va tarbiya jarayonini rejalashtiradi bolaning har tomonlama rivojlanishiga va uning

salohiyatini ochishga hissa qo'shadigan rivojlantiruvchi muhitni yaratadi. Rivojlanish markazlari ta'lim, rivojlantiruvchi, o'qitish, rag'batlantiruvchi, uyushgan, kommunikativ funksiyalarni bajarishi zarur.

#### **"Til va nutq" markazi.**

Ushbu markazda bolalarning do'stlari orasida o'z fikrlarini ayta olishlari, mavzu asosida hikoyalar tuzish, savol-javob qilish, bolalarcha suhbatlar tashkil etish imkoniyati mavjud. Markazda mavzularni tanlash huquqiga ega. Bolalar o'z holicha hikoyalar tuzish imkoniyatiga ega.

#### **"Syujetli-ro'li o'yinlar va drammalashtirish" markaz.**

Markazni bolalar iqtidorini namoyon bo'lishiga, bolalar o'z mahoratini ko'rsatishi uchun juda qulay muhit. Ushbu markazda bolaning "Men"ini shakllantiradi. Markazdagi barcha jihozlar bolalar hayotida uchraydigan jihozlar hisoblanadi. O'yinlarda oila a'zolarining o'z aro munosabatlari aks etadi. Ular orqali axloqiy tarbiya olish imkoniyati mavjud.

#### **"Qurilish-yasash konstruktorlash va matematika" markazi.**

Ushbu markaz orqali bolalar sensor tarbiyasi va ijodkorligi rivojlanadi. Bola vazifani bajarish orqali ham qurilish-yasash, ham matematika bilan shug'ullanish imkoniyatiga ega bo'ladi. Bolalar o'z ishlarini tahlil qilishni o'rganadi.

#### **"Ilm-fan va tabiat" markazi.**

Ushbu markaz nafaqat bolalarda balki, pedagoglarda ham qiziqish uyg'otadi. Markazda olib borilayotgan turli tajribalar orqali bolalar jismlarning foydali va zararli tomonlarini bilib olish imkoniyatiga ega bo'ladi.

#### **"San'at" markzi.**

Ushbu markazda bolalar kayfiyatini ko'tarish imkoniyati mavjud. Har bir bolaning ijodiy qobiliyatlari qo'llab quvvatlanadi. San'atning rassomlik, haykaltaroshlik turlariga hamma inson uchun ham iqtidor berilmagan. Shuning uchun ham bu markazga kamroq bola qatnashishi mumkin.

Xulosa qilib shuni aytishimiz mumkinki pedagoglar o'z faoliyatini amalga oshirayotgan paytda har bir narsaga ahamiyat qaratishi kerak.

#### **Foydalanilgan adabiyotlar ro'yxati.**

1. Sh.M.Mirziyoyevning "2017-2021-yillarda maktabgacha ta'lim tizimini yanada takomillashirish hora tadbilari to'g'risida"gi qarori. T.: -2016-y. 26-dekabr.
2. Kayumova N.M. Maktabgacha pedagogika". "TDPU" nashriyoti. T: 2013-y.
3. O'zbekiston Respublikasining ilk va maktabgacha yoshdagi bolalar rivojlanishiga qo'yiladigan Davlat talablar. Toshkent - 2018-y.
4. Maktabgacha pedagogika. Bediyeva M.M.
5. "Ilm yo'li" variativ dasturi. T. "San-standart". 2020-yil.

## МАКТАБГАЧА YOSHDAGI BOLANING AQLIY RIVOJLANISHINING ASOSIY XUSUSIYATLARI

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**Annotatsiya:** Maktabgacha yoshdagi bolalarni aqliy tarbiyalash nazariyasi va amaliyotining rivojlanish tarixi davomida psixologlarning asosiy sa'y-harakatlari idrok muammosini o'rganishga va maktabgacha yoshdagi bolalarning kontseptual tafakkurini shakllantirishga qaratilgan. Bolaning aqliy tarbiyasi va rivojlanishi fikrlashning asosiy shakllarini - hissiy-amaliydan mavhum-kontseptualgacha bosqichma-bosqich joriy etish jarayoni sifatida qaraldi. Shu bilan birga, aqliy rivojlanish nafaqat bolaning bilimlari va aqliy faoliyat usullarini o'zlashtirish jarayoni, balki shaxsiyatning ma'lum xususiyatlarini shakllantirish sifatida ham harakat qildi.

**Kalit so'zlar:** Maktabgacha ta'lim, tarbiya, aqliy rivojlanish, aqliy tarbiya, aqliy mehnat, kitob, bilim, malaka, ko'nikma.

Maktabgacha yoshdagi bolaning aqliy rivojlanishining asosiy xususiyati - bilishning majoziy shakllarining ustunligi: idrok, obrazli fikrlash, tasavvur. Ularning paydo bo'lishi va shakllanishi uchun maktabgacha yoshdagi alohida imkoniyatlar mavjud. Aqliy tarbiya insoniyatning ko'p asrlik tajribasini yosh avlod tomonidan o'zlashtirish jarayoni sifatida amalga oshiriladi, moddiy madaniyat, ma'naviy qadriyatlar, bilim, ko'nikma, qobiliyat, bilish usullari va boshqalarda ifodalanadi.

Hayotning birinchi yillarida bolalarni aqliy tarbiyalashning asosiy vazifasi - kognitiv faoliyatni shakllantirish, ya'ni. bola atrofidagi dunyoni bilishni o'rganadigan faoliyat. Kichkina bola o'yinda, ishda, sayrlarda, darslarda, kattalar va tengdoshlar bilan muloqotda atrofidagi dunyoni o'rganadi. O'yinda maktabgacha yoshdagi bolalarning aqliy tarbiyasi amalga oshiriladi. O'yinlarda bolalar atrofidagi hayot haqidagi taassurotlarini, ilgari o'rgangan bilimlarini aks ettiradilar. O'yinda bolalarning muloqoti ularning bilimlarini o'zaro boyitishga yordam beradi, chunki bolalar fikr almashadilar, kattalardan maslahat olishadi, boshqa qo'shimcha ma'lumot manbalariga murojaat qilishadi. Bilimlarning yangi bosqichga o'tishi - og'zaki-mantiqiy.

Bolalarning o'z g'oyalarini muvofiqlashtirish, nima va qanday o'ynashlari haqida kelishib olish zarurati bolalarda fikrlashning rejalashtirish funksiyasini rivojlantirishga yordam beradi. Mehnat faoliyatidagi aqliy tarbiya bolalarning hissiy tajribasini boyitishga qaratilgan: materiallar, ularning xususiyatlari, xususiyatlari, transformatsion faoliyat ta'sirida o'zgarishi bilan tanishish. Bolalarda materiallar, asboblar va asboblar, mehnat operatsiyalarini bajarish va boshqalar haqida bilimlar tizimini shakllantiradi.

Maktabgacha yoshdagi bolalarning asosiy faoliyati o'yindir. Kattaroq maktabgacha yoshda ta'lim faoliyatining ahamiyati oshadi. Vizual faoliyat rivojlanishda uzoq yo'lni bosib o'tadi: bola modellashtirish, chizish va applikasiya qilishda turli ko'nikmalar va qobiliyatlarni egallaydi. Ularga elementar musiqiy faoliyat qo'shiladi - qo'shiq aytish, musiqa tinglash, musiqaga harakat qilish. U maktabgacha yoshdagi va dizaynning oxiriga kelib mustaqil faoliyatga shakllanadi.

Bolalar mehnatning har xil turlarini - o'z-o'ziga xizmat qilish, maishiy, qo'l mehnati, tabiatdagi mehnat va boshqalarni o'zlashtiradilar. Sport faoliyati ochiq o'yinlar va jismoniy tarbiya mashg'ulotlari chuqurligida tug'iladi. Shunday qilib, maktabgacha yoshda inson faoliyatining asosiy turlarini shakllantirish va rivojlantirish boshlanadi: muloqot, o'yin, ta'lim, mehnat, san'at, sport. O'z tabiatiga ko'ra, bola o'yinlari aks ettiruvchi faoliyatdir.

O'yinning asosiy shaklida - syujetli rolli o'yin, ijodiy - bolalarning atrofdagi hayot haqidagi taassurotlari - ularning bilimlari, sodir bo'layotgan hodisa va hodisalarni tushinishlari aks etadi. Ko'p sonli o'yinlarda qoidalar, turli xil bilimlar, aqliy operatsiyalar, bolalar o'zlashtirishlari kerak bo'lgan harakatlar. Buni o'zlashtirish umumiy aqliy rivojlanish bilan birga boradi, shu bilan birga, bu rivojlanish o'yinda amalga oshiriladi. Ijodiy o'yinda bolaning aqliy tarbiyasi va rivojlanishi.

Ijodiy o'yinlar mazmunini rivojlantirish bolalarning bilish yo'nalishini aks ettiradi. Bolalar syujet o'yinlarining asosiy mazmuni ob'ektlar bilan turli xil harakatlar tasviridir. Bunday o'yinlar jarayonida bolalar ob'ektlardan foydalanishning ijtimoiy qat'iy usullarini, ular bilan harakatlarni o'zlashtiradilar. Harakatlarni umumlashtirish va ularni bolaning ongida ma'lum bir ob'ektdan ajratish mavjud. O'yinda rolning paydo bo'lishi bolaning ongi yo'nalishini, uning atrofidagi dunyoni amaliy bilishini o'zgartirishni anglatadi. Bilim markazida kattalar turadi. Birinchi rolli o'yinlar hali ham ob'ektlar bilan harakatlarni aks ettiradi, ammo hozir bu harakatlar va ob'ektlar ma'lum bir shaxs bilan bog'liq.

Operatordan oldingi fikrlash davri bolaning yoshiga 2 yoshdan 7 yoshgacha to'g'ri keladi. Bu davrda bolaning umumiy rivojlanishida tub o'zgarishlar sodir bo'ladi. Bir qator tadqiqotlar shuni ko'rsatdiki, maktabgacha yoshdagi bolaning fikrlashning eng muhim shakllari vizual-samarali va vizual-majoziydir. Ushbu shakllarning rivojlanishi ko'p jihatdan yanada murakkab, kontseptual shakllarga o'tishning muvaffaqiyatini belgilaydi. Shunday qilib, bolaning aqliy, shu jumladan aqliy rivojlanishi aniq tarixiy va ijtimoiy xususiyatga ega bo'lgan jarayon sifatida ishlaydi, uning barcha asosiy bosqichlari ijtimoiy tajribani uzatishning o'ziga xos xususiyatlari bilan belgilanadi.

Maktabgacha yoshdagi bolalarni aqliy tarbiyalash vositalari sezilarli darajada kengayib bormoqda. O'qituvchi bolalarning turli o'yinlarini tashkil qiladi, kuzatishlar olib boradi, sinfda sanash, rasm chizish, modellashtirish, nutqni o'rgatadi. Maishiy faoliyat jarayonida kattalar bolalarni turli xil narsalardan foydalanishga, ishlashga o'rgatadi.

Ota-onalar va o'qituvchilar doimiy ravishda bolaning oldiga amaliy, o'yin va kognitiv vazifalarni qo'yadilar, ularni hal qilish bilim va ko'nikmalarni, kognitiv jarayonlar va qobiliyatlarni shakllantirishga, turli xil faoliyat turlarini, kognitiv faoliyat motivlarini rivojlantirishga, yanada takomillashtirishga olib keladi. nutq va boshqalar. Bolaning aqliy rivojlanishining asosi uning faol faoliyatidir. Lekin bu faoliyatning o'zi ta'lim va tarbiya ta'sirida shakllanadi, shakllanadi. Shunday qilib, kattalar, pedagoglar oldida ikkita vazifa turibdi: aqliy tarbiyani amalga oshirishda, ularning sa'y-harakatlarini ma'lum yoshdagi bolalarda mavjud bo'lgan turli xil faoliyat turlarini shakllantirishga yo'naltirish va ulardan bolani aqliy tarbiyalash maqsadida foydalanish. Erta yoshdayoq muloqot va o'yin ob'ektiv faoliyat asosida shakllanadi va mehnatning

boshlanishi paydo bo'ladi. Ularning keyingi rivojlanishi maktabgacha yoshdagi bolalikda sodir bo'ladi.

Maktabgacha tarbiya yoshidagi bolalarga aqliy tarbiya berishni to'g'ri tashkil etish uchun ularning aqliy rivojlanish qonuniyatlari va imkoniyatlarini bilish kerak. Aqliy tarbiyaning vazifasi uning mazmuni, metodi va tashkil etilishiga qarab belgilanadi. Pedagogika va psixologiya fani aqliy tarbiya berish vazifalarini samarali hal etishda, bir tomondan, bolaning imkoniyatlaridan unumli foydalanish, ikkinchi tomondan, bola organizmning umumiy charchashiga sabab bo'lishi mumkin bo'lgan ortiqcha toliqtirish bo'lmasligi yo'llarini topish uchun maktabgacha tarbiya yoshidagi bolalarning aqliy rivojlanishi qonuniyatlari va imkoniyatlarini o'rganish bilan shug'ullanadi.

Keyingi yillarda olib borilgan psixologik- pedagogik tadqiqotlarning natijalari maktabgacha tarbiya yoshi davrida bolalarning aqliy rivojlanishida juda katta imkoniyatlar mavjudligini ko'rsatdi. Bularning hammasi maktabgacha tarbiya yoshidagi bolalarga beriladigan bilim malaka va ko'nikmalar mazmunini yanada chuqurlashtirish, hajmini kengaytirish maqsadga muvofiq ekanligidan dalolatdir.

Maktabgacha tarbiya yoshining oxiriga kelib, bolalar tevarak-atrof to'g'risida kattagina hajmdagi eng oddiy bilim va tushunchalarga ega bo'ladilar, asosiy fikrlash jarayonlarini egallab oladilar. Faqat yaxshi tashkil etilgan faoliyat jarayonidagina to'laqonli aqliy rivojlanish ro'y beradi, shuning uchun o'qituvchi va tarbiyachilarning asosiy vazifasi — bolaga muayyan maqsadni ko'zlab tarbiyaviy ta'sir ko'rsatish uchun kerakli sharoit yaratishdir. Bola har doim buyumlar hamda hodisalar orasida bo'ladi. Bola doimo biror narsa bilan tanishadi, nimanidir bilib oladi, ushlab ko'radi, hidlaydi, tortib ko'radi, nimagadir quloq soladi. SHu tariqa asta-sekin dunyoni bilib boradi. Tevarak-atrofdagi buyumlar, tabiat bolaning sezgi organlari — analizatorlariga ta'sir etadi va sezgi hosil qiladi. Sezgi bolalarga buyumlarning ayrim xossalarini: sovuq-issiq, gadir-budur, silliq-yaltiroq, xushbo'y va h.k. ni bilim olishga yordam beradi. Sezgi atrofdagi muhitni bilishning dastlabki bosqichi sanaladi. Bola sezgi tufayligina tevarak-atrofdagi narsalar to'g'risida bilim, tajriba to'plab boradi. Idrok esa ancha murakkab jarayon bo'lib, sezgilar asosida hosil bo'ladi. Bola olmani qo'lida ushlab ko'rib, qarab chiqib va eb ko'rib, uni yaxlit bir buyum, ayni bir vaqtda dumaloq, qizargan, xushbo'y, mazali va h.k. tarzda idrok qiladi. Bola olmani yaxlit bir buyum tarzida tasavvur qilishi uchun birdaniga bir nechta analizator:

ko'rish, sezish va hid bilish analizatorlaridan foydalanadi. Analizatorlar bir vaqtning o'zida birdaniga ishlashi buyumning xossasi va belgilarini aniqroq hamda to'laraq bilish imkonini beradi. SHuning uchun katta yoshdagi kishilar bolani ilk yoshlik chog'idan boshlab aqliy jihatdan to'g'ri tarbiyalash maqsadida buyumlarni ko'proq analizatorlar yordamida idrok qilishga imkon tug'dirishlari, analizatorlarning rivojlanishiga, ya'ni bolaning sensor madaniyatiga alohida e'tibor berishlari kerak.

Katta bog'cha yoshiga kelganda, bolaning tajribasi ortib, faoliyati murakkablashadi va buning natijasida bola xayolida sezilarli o'zgarish yuz beradi. Maktabgacha tarbiya yoshdagi bolalarni aqliy tarbiyalash vazifalarini jamiyatimizning ijtimoiy talablariga va insonning aqliy rivojlanish mohiyati va tabiatiga asoslanib ishlab chiqadi. Aqliy tarbiyaning asosiy vazifalari:

1. Bolalarda tabiat va jamiyat to'g'risidagi bilimlar tizimini, ilmiy dunyoqarashni shakllantirish.

2. Aqliy faoliyat, bilish jarayonlari va qobiliyatlarni, aqliy jarayonning xilma-xil usullarini rivojlantirish.

3. Mustaqil bilish qobiliyatlarini, aqliy mehnat madaniyatini rivojlantirish.

4. Aqliy bilim, ko'nikma va malakalarini rivojlantirish.

Bilimni tasavvurlar va tushunchalar, qoidalar, qonuniyatlar, sistemalar shaklidagi turli fanlarning mazmuni tashkil etadi.

Aqliy tarbiyaning vazifasi bolalarda voqea va hodisalarni to'la aks ettiradigan yuksak darajadagi umumlashtirilgan bilimlar tizimini shakllantirishdan iboratdir. Bilim dunyoqarashning asosini tashkil etadi. Demak, bola tevarak-atrofdagi narsalar, ularning vazifasi sifati va xossalari (sinadi, pachoq bo'ladi, yirtiladi, to'kiladi) haqida, qaysi materialdan tayyorlanganligi to'g'risida aniq tasavvurga ega bo'ladi. U tabiat hodisalari, ularning o'zaro bog'liqligi va qonuniyatlari (yil fasllarining o'ziga xos belgilari, ular o'rtasidagi bog'lanishlar, hayvonlar, ularning hayoti va yashash tarzining tashkil qilinishiga, xulqiga, yashash sharoitiga mosligi va h.k.) ni bilib oladilar.

#### FOYDALANILGAN ADABIYOTLAR RO'YXATI

1. R.A.Mavlonova, O.T.To'raeva, U.M.Xoliqberdiev Pedagogika. — T., «O'qituvchi». 2001.
2. A.Minavvarov Pedagogika. — T., «O'qituvchi». 1996.
3. YU.P.Azlarov Bolalarni sevish san'ati. — T., 1992.
4. Shokarimova, K. A. (2020). Pedagogik qobiliyat va pedagogik mahoratning talimtarbiya berishdagi ahamiyati. Science and Education, ^ (Special Issue 2).
5. [www.ziyonet.com](http://www.ziyonet.com)



## УПРАВЛЕНИЕ СПОРТОМ ЧЕРЕЗ НАЦИОНАЛЬНЫЕ И МЕЖДУНАРОДНЫЕ СПОРТИВНЫЕ ОРГАНИЗАЦИИ

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**Аннотация:** в этой созданной статье рассматривается управление спортом через национальные и международные спортивные организации. Управление системой спорта основывается на теории управления, менеджмента.

**Ключевые слова:** менеджмент, спорт, управления.

Эффективная деятельность в спорте высших достижений, как и в профессиональном спорте, требует наличия эффективной системы управления деятельностью спортсменов и спортивных команд.

В специальной спортивной литературе формулируются следующие определения понятия «механизм управления спортом»: механизм управления – взаимосвязанный комплекс форм, методов, обеспечивающий эффективную реализацию целей спортивной деятельности и наиболее полное удовлетворение общественных, коллективных и индивидуальных особенностей в конкретно-временном масштабе спортивной деятельности.

Управление системой спорта основывается на теории управления, менеджмента.

Для эффективного управления тренировочным и соревновательным процессами необходимо решать вопросы совершенствования структуры организационных форм управления, выбора критериев оценки различных сторон подготовленности спортсменов, использования количественной информации с качественным анализом различных характеристик двигательной деятельности спортсменов и т.д. (1).

Как известно, управление системой определяется как непрерывный, целенаправленный процесс, осуществляемый с помощью различных методов и средств для достижения оптимальных результатов. В основную задачу управления входит создание таких форм и условий, при которых деятельность протекала бы с максимальным эффектом при минимальных затратах, с наименьшими потерями ресурсов. Все это в полной мере относится к системе спортивной подготовки.

Применительно к спорту высших достижений – это функция организованных систем, определяющих стратегию развития спорта, рост спортивных результатов и достижений на международной арене. Ж.К.Холодов (2) в системе управления выделяет организационную структуру управления и механизм, обеспечивающий функционирование системы подготовки и достижение цели. Он под организационной структурой понимает совокупность взаимосвязей и соподчиненности различных спортивных организаций, приведение в единую систему управления отдельных компонентов, корректирующих воздействий, направленных на достижение целей при различных изменениях внешних условий и внутреннего состояния системы. Механизмами управления являются комплексы различных методов, приёмов, средств и стимулов, которые применяются в управлении подготовкой спортсменов.

Управление деятельностью спортивных команд является методологической и методической основой всего процесса их подготовки. Применительно к спорту высших достижений мы используем следующее понятие термина «управление»: «управление – это один из элементов организованных систем различной природы, обеспечивающий сохранение их структуры, поддержание деятельности и, в конечном счёте, реализацию программ и целей этих систем» (3). Управление как функция организованной системы призвано обеспечить реализацию целей подготовки, поскольку в данном случае целевая функция управления это достижение спортивными командами и отдельными спортсменами запланированных спортивных показателей в крупнейших соревнованиях (4).

В настоящее время не вызывает сомнений, что управление системой подготовки спортсменов – весьма сложная форма интеллектуальной деятельности, что процессы соревнований и подготовки к ним должны быть управляемы. В конкретном выражении управление в спорте высших достижений – это функция организованных систем, определяющих стратегию развития спорта, рост спортивных результатов и достижений на международной арене.

В системе управления выделяют организационную структуру и механизм (процесс), обеспечивающие функционирование системы и достижение поставленных целей. Организационная структура – это совокупность взаимосвязей и соподчиненности различных правительственных и спортивных организаций, цели, задачи и функции системы в целом и отдельных её компонентов (подсистем), потоки информации между ними (5). Основными элементами такой системы являются подсистемы соревнований, тренировки, научного и методического обеспечения, финансирования, материально-технического обеспечения.

Механизм управления — это комплекс различных методов, приемов средств, стимулов, которые применяются участниками в управлении олимпийской подготовкой (5).

В последние годы в лексикон спортивных руководителей, как и учёных, социологов и экономистов спорта, входит термин «менеджмент» — как аналог термину «управление». Поставив знак равенства между этими терминами, следует подчеркнуть, что смысл второго несколько шире — он употребляется применительно к различным сферам человеческой деятельности.

Термин «менеджмент» специалисты обычно употребляют применительно к теории и практике управления социально-экономическими процессами в условиях рыночной экономики. В связи с этим процесс управления спортивной подготовкой можно рассматривать на различных уровнях: федеральном, ведомственном, местном; на уровне спортивной федерации, сборной команды; в системе «тренер — спортсмен», «тренер — игровая команда».

На всех уровнях управления можно выделить единый трехкратный алгоритм:

- прямая связь, по которой передаются команды, что должны делать спортсмен или команда;
- обратная связь, идущая от исполнителя к управлению, по которой поступает информация о состоянии спортсменов и команд и об изменениях в их состоянии после выполнения управляющих команд;
- анализ полученной информации и внесение корректив (5).

XX век испытал мощное влияние идей управления (менеджмента) на все стороны жизни общества, организаций и людей. Именно в этот период управление сформировалось как функция и процесс, как искусство и наука. Принципы, формы и методы управления распространились из сферы бизнеса на организации и учреждения науки, образования, здравоохранения, спорта и др.

Одновременно растет признание того факта, что менеджмент является областью деятельности профессионально подготовленных людей (персонала организации), обладающих искусством управления. Следовательно, важнейшая роль в управлении отводится человеку, его таланту, способностям, знаниям и умениям. Особенно большое значение это приобретает для России, где происходят сложные перестроечные процессы, результативность которых зависит от организации управления. Это в полной мере относится и к спорту, особенно спорту высших достижений и профессиональному спорту (6).

Структура системы олимпийской подготовки в нашей стране складывалась исторически. Она включает большое количество различных организаций и носит государственно-общественный характер. В рамках

большинства организационных структур, входящих в систему, в настоящее время осуществляется управление, как общедоступным спортом, так и спортом высших достижений.

В условиях исключительно сложной организационной структуры очень трудно добиться интеграции, кооперирования, координации и преодоления функциональной обособленности и узковедомственных целей. В ходе олимпийской подготовки управленческий процесс имеет циклический характер; четырехлетние и годовые макроциклы включают повторяющиеся периоды, этапы, поэтому возможна и необходима разработка типовых алгоритмов осуществления различных мероприятий с учетом конкретных условий и обстоятельств, что существенно повышает эффективность управления, организационно-управленческую деятельность и улучшает конечные результаты (итоги Игр Олимпиад).

Использование системного подхода в управлении спортивной подготовкой требует:

четкого определения целей, условий и ресурсов деятельности;

оперативного и корректного наблюдения за протекающими процессами и выполняемыми работами, за состоянием и функционированием внутренней и внешней среды;

своевременного выявления и исчерпывающего анализа отклонений в плановом процессе и их причин;

постоянного инициативного творчества при корректировке целей, условий и способов деятельности, при совершенствовании управления деятельностью (6).

В последние годы наука и практика управления в сфере физической культуры и спорта концентрировались на социологических, социально-педагогических и экономических аспектах деятельности организационных структур и проведения Игр Олимпиад. В то же время организационные и методические аспекты управления процессом спортивной подготовки, особенно на современном этапе коммерциализации и профессионализации спорта высших достижений, разрабатывались лишь в ограниченном числе исследований (6).

Начальная точка книги Т.Ю.Куцевич (7) - это разъяснение позиций автора относительно двух терминов: «управление» и «администрирование». Управление влечет за собой необходимость принимать решения и создавать системы, чтобы внедрять в жизнь какую-то политику. Менеджеры в первую очередь беспокоятся по поводу того, чтобы все системы работали - их организация была более эффективной, обязанности выполнялись, а цели достигались. Термин «администрирование» обычно относится к ежедневной работе систем. Администраторы отвечают за выполнение решений и

каждодневную, рутинную, но важную деятельность. Логика, порядок и методы — это те качества, которые ассоциируются с хорошим администрированием, в то время как эффективное управление предполагает мастерство, включая понятия общения, организации времени, руководства, командной работы и планирования. Принятие решений, и проведение их в жизнь требуют хорошего администрирования, обеспечивающего доступ к информации и эффективные действия; точно так же администрирование без хорошего управления не сможет быть эффективным. Представить обзор наиболее важной информации - основные качества, которые нужны руководителям федерации, и основные задачи, которые федерация должна выполнять ежедневно.

Основной организационной единицей спорта в большинстве стран является спортивный клуб. Клубы существуют для предоставления услуг спортсменам и являются органами, через которые ведётся основная тренировочная и соревновательная деятельность. Их членство может быть открыто для любого, кто хочет присоединиться к этому клубу, или это могут быть рабочие одной компании, профессиональной или правительственной организации. Клубы являются членами национальной федерации, и поэтому они являются основным контактным звеном между индивидуальными спортсменами и высшим национальным органом в своем виде спорта.

Во многих странах услуги, пропаганда и руководство спортом облегчаются за счёт ассоциаций на местном или провинциальном уровне. В целом, в каждом виде спорта есть своя группа местных ассоциаций, которые присоединены к национальной ассоциации. Местные ассоциации дают членство клубам в своём регионе, проводят в жизнь программы национальных федераций и осуществляют их программы в своём регионе, а также имеют свою собственную программу соревнований.

Структура, основанная на комитетах, и их работа доказали свой успех в большинстве спортивных организаций в мире. Однако каждая федерация сталкивается со своей ситуацией, что означает, что эта основная структура (и конституция) могут быть приспособлены к обстоятельствам, при которых были созданы комитеты, определена точная роль каждого комитета и взаимоотношения между комитетами.

Управление спортом – это взаимосвязанный комплекс форм и методов прямого и косвенного, формального и неформального воздействия, экономические, социальные, организационные, правовые воздействия. Они используются комплексно, однако, на определённых стадиях процесса управления некоторые из них обладают приоритетом.

## ЛИТЕРАТУРЫ

1. Федоров А.И., Береглазов В.Н. Комплексный педагогический контроль как основа управления тренировочным процессом. Учеб. пособие. – Челябинск: Урал ГАФК, 2001. – 168 с.

2. Холодов Ж.К. Теория и методика физического воспитания и спорта. Учеб. пособие для студентов вузов физ. культуры. - 2-е изд., испр. и доп. – М.: Academia. – 2003. – 479 с.: ил.

3. Управление подготовкой высококвалифицированных спортсменов в видах единоборств: Метод. рекоменд. /А.А.Акопян, А.А.Новиков, Г. А. Сапунов и др.- М., 1986.-43 с.

4. Обухова Н.Б. Стандартная тренировочная программа для развития скоростно-силовых качеств у детей 9-10 лет // Физическая культура: воспитание, образование, тренировка. – М., 2002. – № 4. – С. 33-35.

5. Киракосян О. Е. Средства и методы педагогического контроля силовой подготовки борцов: Автореф. дис. .канд. пед. наук. - М., 1983.- 23 с.

6. Туманян Г. С. Спортивная борьба: отбор и планирование. М. : Физкультура и спорт, 1984.- 144 с.

7. Теория и методика физического воспитания. Учебник / Под ред. Т.Ю. Круцевич. – в 2-х томах. – Киев: Олимпийская литература, 2003. – 424 с.

## BOSHLANG'ICH SINIF O'QUVCHILARIDA INGLIZ TILINI O'QITISH ORQALI REFLEKTIV KO'NIKMALARNI RIVOJLANTIRISH

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**Annotatsiya:** Ushbu tadqiqot boshlang'ich sinf o'quvchilari o'rtasida reflektiv qobiliyatlarni oshirish vositasi sifatida ingliz tilini o'rgatish samaradorligini o'rganadi. Reflektiv ko'nikmalar tanqidiy fikrlash, o'z-o'zini anglash va metakognitiv qobiliyatlarni rivojlantirishda muhim rol o'ynaydi, bu akademik muvaffaqiyat va uchun zarurdir. Metodika boshlang'ich sinf o'quvchilari bilan ma'lum vaqt oralig'ida yaqindan ishlashni, mulohaza yuritish uchun moslashtirilgan interfaol va so'rovga asoslangan o'qitish usullarini joriy qilishni o'z ichiga oladi. Ma'lumotlar to'plash o'quv jarayonidan oldingi va keyingi baholashlarni, sinfdagi kuzatishlarni va o'quvchilarning fikrlash jarayonlari bo'yicha miqdoriy ko'rsatkichlarni va sifatli tushunchalarni olish uchun o'quvchilar suhbatlarini o'z ichiga oladi. Dastlabki natijalar ingliz tilini maqsadli o'qitish va boshlang'ich sinf o'quvchilari o'rtasida reflektiv qobiliyatlarni rivojlantirish o'rtasidagi ijobiy bog'liqlikni ko'rsatadi. Sifatli tahlil ishtirokchilarning o'zini namoyon qilish, tanqidiy tahlil qilish va ta'lim strategiyalaridan xabardorlik darajasini oshiradi. Ushbu topilmalar shuni ko'rsatadiki, ingliz tilini o'rgatishda reflektiv amaliyotlarni integratsiya qilish nafaqat tilni bilish darajasini oshiradi, balki akademik va shaxsiy o'sish uchun muhim bo'lgan muhim kognitiv va metakognitiv ko'nikmalarni rivojlantiradi. Muhokama ta'lim amaliyotlari, o'quv dasturlarini ishlab chiqish va o'qituvchilar malakasini oshirishga ta'sir ko'rsatadi va fanlar bo'yicha reflektiv ko'nikmalarni rivojlantirish uchun yaxlit yondashuv zarurligini ta'kidlaydi. Kelgusi tadqiqot yo'nalishlari aks ettiruvchi o'qitish strategiyalarining uzoq muddatli ta'sirini va ularning turli xil ta'lim sharoitlariga o'tkazilishini baholash uchun tadqiqotlarni o'z ichiga oladi.

**Kalit so'zlar:** Reflektiv qobiliyatlar, Ingliz tili ta'limi, O'z-o'zini anglash, O'z-o'zini tartibga solish, O'z-o'zini baholash, O'sish tafakkuri, Reflektiv amaliyotlar.

## РАЗВИТИЕ РЕФЛЕКСИВНЫХ НАВЫКОВ ПУТЕМ ОБУЧЕНИЯ АНГЛИЙСКОМУ ЯЗЫКУ У УЧАЩИХСЯ НАЧАЛЬНЫХ КЛАССОВ

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**Аннотация:** В данном исследовании рассматривается эффективность преподавания английского языка как средства улучшения рефлексивных навыков у учащихся начальных классов. Навыки рефлексии играют важную роль

в развитии критического мышления, самосознания и метакогнитивных навыков, которые необходимы для академического успеха. Методика предполагает тесное сотрудничество с учениками начальной школы на протяжении определенного периода времени, внедрение интерактивных и исследовательских методов обучения, адаптированных для размышления. Сбор данных включал пред- и послеучебные оценки, наблюдения в классе и интервью со студентами для получения количественного и качественного понимания процессов мышления учащихся. Предварительные результаты показывают положительную связь между целевым обучением английскому языку и развитием рефлексивных навыков у учащихся начальной школы. Качественный анализ повышает осведомленность участников о самовыражении, критическом анализе и стратегиях обучения. Эти результаты показывают, что интеграция рефлексивных практик в преподавание английского языка не только повышает уровень владения языком, но также развивает важные когнитивные и метакогнитивные навыки, которые важны для академического и личностного роста. Дискуссия имеет значение для образовательной практики, разработки учебных программ и подготовки учителей, а также подчеркивает необходимость целостного подхода к развитию рефлексивных навыков по всем дисциплинам. Будущие области исследований включают исследования по оценке долгосрочных эффектов рефлексивных стратегий обучения и их применимости в различных образовательных учреждениях.

**Ключевые слова:** рефлексивные навыки, изучение английского языка, самосознание, саморегуляция, самооценка, мышление роста, рефлексивные практики.

## DEVELOPMENT OF REFLECTIVE SKILLS THROUGH TEACHING ENGLISH IN PRIMARY CLASS STUDENTS

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**Abstract:** This study examines the effectiveness of teaching English as a means of improving reflective skills among primary school students. Reflective skills play an important role in developing critical thinking, self-awareness, and metacognitive skills that are essential for academic success and. The methodology involves working closely with elementary school students over a period of time, introducing interactive and inquiry-based teaching methods adapted for reflection. Data collection included pre- and post-instructional assessments, classroom observations, and student interviews to obtain quantitative and qualitative insights into students' thinking processes. Preliminary results show a positive relationship between targeted English language teaching and the development of reflexive skills among primary school students. Qualitative analysis increases participants' awareness of self-expression, critical analysis, and learning strategies. These findings suggest that integrating reflective



practices in English language teaching not only increases language proficiency, but also develops important cognitive and metacognitive skills that are important for academic and personal growth. The discussion has implications for educational practices, curriculum development and teacher training, and highlights the need for a holistic approach to developing reflective skills across the disciplines. Future research areas include studies to evaluate the long-term effects of reflective teaching strategies and their transferability to different educational settings.

**Keywords:** Reflective skills, English language learning, Self-awareness, Self-regulation, Self-evaluation, Growth mindset, Reflective practices.

### KIRISH

Zamonaviy ta'limda reflektiv ko'nikmalarini rivojlantirish turli akademik sohalarda o'quvchilar o'rtasida chuqur o'rganish, tanqidiy fikrlash va metakognitiv qobiliyatlarni rivojlantirishning muhim jihati sifatida paydo bo'ldi. Ayniqsa, boshlang'ich ta'lim sohasi ushbu kognitiv kompetensiyalarni shakllantirishda, uzluksiz ta'lim va intellektual o'sish uchun zamin yaratishda asosiy rol o'ynaydi. Shu nuqtai nazardan, ingliz tilini ikkinchi til sifatida o'rgatish nafaqat til bilimni oshirish, balki yaxlit ta'limning ajralmas qismi bo'lgan reflektiv amaliyotni rivojlantirish uchun noyob imkoniyatdir. Ushbu tadqiqot ingliz tilini o'qitish va boshlang'ich sinf o'quvchilari o'rtasida fikr yuritish qobiliyatlarini rivojlantirish o'rtasidagi murakkab o'zaro bog'liqlikni o'rganadi. Reflektiv ko'nikmalar bir qator kognitiv jarayonlarni o'z ichiga oladi, jumladan, introspeksiya, o'z-o'zini baholash, tanqidiy tahlil va strategik rejalashtirish, bularning barchasi akademik muvaffaqiyat va shaxsiy rivojlanish uchun zarurdir. Talabalarni ingliz tilini o'rganish kontekstida reflektiv amaliyotlarga jalb qilish orqali o'qituvchilar kurs materiallari bilan chuqurroq shug'ullanishlari, avtonom o'rganish strategiyalarini rag'batlantirishlari va doimiy takomillashtirishga yordam beradigan o'sish tafakkurini rivojlantirishlari mumkin. Ushbu tadqiqotning mantiqiy asosi, asosan, boshlang'ich ta'lim muassasalarida ingliz tilini o'qitish tizimida reflektiv pedagogikaning aniq integratsiyasi bo'yicha sezilarli tadqiqot bo'shlig'ini tan olishdan kelib chiqadi. Sifatli intervyular, miqdoriy baholashlar va sinfdagi kuzatuvlarni o'z ichiga olgan aralash usullardan foydalangan holda, ushbu tadqiqot ingliz tilini o'qitish jarayonida boshlang'ich sinf o'quvchilarida reflektiv qobiliyatlarni rivojlantirishning nozik dinamikasini yoritishga qaratilgan. Ushbu tadqiqot natijalari boshlang'ich ta'lim sharoitida ta'lim siyosati, o'quv dasturlarini ishlab chiqish va pedagogik amaliyot uchun muhim ahamiyatga ega. Ingliz tilini o'rganish va reflektiv ko'nikmalarni rivojlantirish o'rtasidagi simbiotik aloqani yoritib, ushbu tadqiqot samarali o'qitish strategiyalari va talabalarga yo'naltirilgan ta'lim yondashuvlari haqida kengroq mazmundagi qimmatli tushunchalarni qo'shishga intiladi.

### ADABIYOTLAR TAHLILI VA METODLAR

Metakognitiv ong, tanqidiy fikrlash va o'z-o'zini tartibga solish bilan tavsiflangan reflektiv ta'lim chuqurroq tushunish, mazmunli o'rganish tajribasi va uzluksiz kognitiv ko'nikmalarni rivojlantirishdagi roli uchun ta'lim tadqiqotlarida katta e'tiborni tortgan. (Dyui, 1933; Schön, 1983). Til ta'limi sohasida reflektiv amaliyotlarning integratsiyasi tilni o'zlashtirishni kuchaytirish, o'quvchilarning avtonomiyasini rivojlantirish va

yuqori darajadagi fikrlash qobiliyatlarini rivojlantirish uchun kuchli pedagogik yondashuv sifatida tan olingan (Farrell, 2018; Hatton & Smith, 1995).

Boshlang'ich ta'lim muassasalarida o'quvchilar o'zlarining asosiy ta'lim yo'llarini boshlaganlarida, reflektiv ko'nikmalarining ahamiyati yanada aniqroq bo'ladi. Tadqiqotlar shuni ko'rsatadiki, reflektiv ta'lim amaliyotiga erta ta'sir qilish nafaqat kognitiv rivojlanishni boyitadi, balki akademik muvaffaqiyat va shaxsiy o'sishga hissa qo'shadigan muhim metakognitiv strategiyalarni ham rivojlantiradi (Boud, Keogh va Walker, 1985; Mezirow, 1990). Ingliz tilini o'qitish, lingvistik va kommunikativ kompetentsiya uchun vosita sifatida, reflektiv pedagogikani birlashtirish uchun qulay kontekstni taklif qiladi (Schoepp, 2015). Til o'rganish doirasida o'quvchilarni o'z-o'zini baholash, tanqidiy mulohaza yuritish va maqsadlarni belgilashga yordam beradigan vazifalarga jalb qilish orqali o'qituvchilar til bilimi bilan bir qatorda reflektiv qobiliyatlarni rivojlantirishga yordam beradi (Richards va Lockhart, 1996).

Turli nazariy asoslar reflektiv o'rganish va tilni o'zlashtirishning kesishishini asoslaydi. Schön (1983)ning "harakatdagi refleksiya" va "harakat ustidagi mulohaza" tushunchalari o'quvchilar o'z tajribalari ustida doimiy mulohaza yuritish orqali muammoni hal qilish va qaror qabul qilish jarayonlarini kuchaytirishi mumkinligini ta'kidlaydi. Xuddi shunday, Vygotskiyning (1978) ijtimoiy-madaniy nazariyasi kognitiv rivojlanishda til va ijtimoiy o'zaro ta'sirning rolini ta'kidlab, reflektiv dialog va hamkorlikdagi ta'lim muhiti metakognitiv o'sishga yordam beradi, degan fikrni bildiradi. Til ta'limida reflektiv amaliyotlarning samaradorligini o'rganuvchi empirik tadqiqotlar istiqbolli natijalar berdi. Misol uchun, Li (2015) ingliz tili sinflarida aks ettiruvchi vazifalarni kiritish til mazmuni bilan chuqurroq shug'ullanishga yordam berishini va talabalarning tildan foydalanishda o'z-o'zini samaradorligini oshirishini aniqladi. Bundan tashqari, Xatib va Tahririy (2017) aks ettiruvchi yozish topshiriqlari yosh o'quvchilarda tanqidiy fikrlash qobiliyatlari va metakognitiv ongni rivojlantirishini ko'rsatdi.

Ushbu tushunchalarga qaramay, ingliz tilini o'qitishning boshlang'ich kontekstida reflektiv pedagogikaning aniq integratsiyasiga oid adabiyotlarda sezilarli bo'shliq mavjud. Oliy ta'lim muassasalarida olib borilgan tadqiqotlar reflektiv amaliyotlarning afzalliklarini ta'kidlagan bo'lsa-da, ularning qo'llanilishi va boshlang'ich sinflardagi yosh o'quvchilarga ta'siri qo'shimcha tadqiqotlarni talab qiladi (Farrell, 2015; Mann, Gordon, & MacLeod, 2009).

Ushbu tadqiqot maqsadli ingliz tilini o'rgatish strategiyalari boshlang'ich sinf o'quvchilarida reflektiv ko'nikmalarni qanday rivojlantirishi mumkinligini o'rganish orqali ushbu bo'shliqni bartaraf etishga intiladi. Nazariy nuqtai nazarlar, empirik dalillar va pedagogik tushunchalarni sintez qilish orqali ushbu tadqiqot til o'rganish va reflektiv ko'nikmalarni rivojlantirish o'rtasidagi simbiotik aloqani chuqurroq tushunishga hissa qo'shish va shu orqali boshlang'ich ta'lim sharoitida samarali o'qitish amaliyoti va o'quv dasturlarini loyihalash haqida ma'lumot berishga qaratilgan.

## MUHOKAMA

Ushbu tadqiqot natijalari ingliz tilini o'qitish bilan shug'ullanadigan boshlang'ich sinf o'quvchilari o'rtasida reflektiv qobiliyatlarni rivojlantirishning murakkab dinamikasiga oydinlik kiritadi. Sifatli intervyular, miqdoriy baholashlar va

sinf kuzatuvlarini o'z ichiga olgan aralash usullardan foydalangan holda, ushbu tadqiqot maqsadli o'qitish strategiyalarining reflektiv amaliyotni rivojlantirishga va o'quvchilarning kognitiv va metakognitiv qobiliyatlarini oshirishga ta'sirini o'rgandi. Natijalar reflektiv pedagogikaning integratsiyalashuvi va yosh o'quvchilar o'rtasida reflektiv qobiliyatlarni rivojlantirish o'rtasidagi ijobiy bog'liqlikni ko'rsatadi. Talabalar intervyularining sifatli tahlili o'z-o'zini anglash, tanqidiy fikrlash qobiliyati va o'quv jarayonlari bilan chuqurroq shug'ullanishni aniqladi. Ishtirokchilar o'z fikrlarini ifodalash, til tarkibini tahlil qilish va til o'rganish tajribasini oshirish uchun metakognitiv strategiyalarni qo'llash qobiliyatini yaxshilaganligini namoyish etdilar.

Ushbu tadqiqotning asosiy xulosalaridan biri ingliz tili darslarida reflektiv topshiriqlar va ko'rsatmalarni kiritish muhimligidir. O'quvchilarni o'z ta'lim tajribalari haqida fikr yuritishga, maqsadlar qo'yishga va ularning taraqqiyotini kuzatishga undash orqali o'qituvchilar metakognitiv rivojlanish va o'z-o'zini boshqarish uchun qulay muhit yaratishi mumkin (Zeyxner va Liston, 1996). Bundan tashqari, reflektiv amaliyotlarning interfaol tabiati tengdoshlar bilan hamkorlikni, konstruktiv fikr-mulohazalarni va o'rganish sayohatiga egalik tuyg'usini rivojlantiradi.

Topilmalar, shuningdek, o'qituvchining o'quvchilarning reflektiv qobiliyatini egallashga yordam berishdagi rolini ta'kidlaydi. Reflektiv fikrlashni aniq modellashtiradigan, u uchun tuzilgan imkoniyatlarni ta'minlaydigan va metakognitiv ongni rivojlantiruvchi fikr-mulohazalarni taklif qiladigan o'qituvchilar o'quvchilarning reflektiv qobiliyatiga sezilarli ta'sir ko'rsatishi mumkin (Xetti, 2009). Bundan tashqari, raqamli portfellar yoki aks ettiruvchi jurnallar kabi texnologik vositalarni integratsiyalash sinfda reflektiv amaliyotlarning mavjudligi va barqarorligini oshirishi mumkin (Kolb va Kolb, 2009). Ushbu tadqiqotning natijalari boshlang'ich sinflardagi kengroq pedagogik amaliyotlarni qamrab olish uchun til ta'limi doirasidan tashqariga chiqadi. O'quv dasturlarini loyihalash va o'qitish strategiyalarining ajralmas qismi sifatida aks ettiruvchi ta'limga ustuvor ahamiyat berish orqali o'qituvchilar o'quvchilarga intizom chegaralaridan oshib ketadigan muhim kognitiv va metakognitiv ko'nikmalarga ega bo'lishlari mumkin (Bransford, Braun va Cocking, 2000). Ta'limga bunday yaxlit yondashuv nafaqat akademik muvaffaqiyatga yordam beradi, balki o'quvchilarni tobora murakkab va dinamik dunyoni boshqarish uchun zarur bo'lgan uzluksiz ta'lim kompetensiyalari bilan ta'minlaydi. Nisbatan kichik namuna hajmi va tadqiqot o'tkazilgan o'ziga xos kontekst kabi ushbu tadqiqotning muayyan cheklovlarini tan olish kerak. Kelgusi tadqiqot harakatlari o'quvchilarning akademik samaradorligiga aks ettiruvchi o'qitish strategiyalarining barqaror ta'sirini baholash uchun tadqiqotlarni o'rganishi, shuningdek, boshlang'ich ta'lim muassasalarida reflektiv amaliyotlarining fanlararo qo'llanilishini o'rganishi mumkin. O'z-o'zini anglaydigan, tanqidiy fikrlaydigan va muammoni hal qila oladigan o'quvchilarni tarbiyalash orqali o'qituvchilar turli xil ta'lim muhitida rivojlanish va jamiyatga mazmunli hissa qo'shadigan avlodni yetishtirishlari mumkin.

### NATIJALAR

Ushbu tadqiqot natijalari ingliz tilini o'qitishning boshlang'ich sinf o'quvchilari o'rtasida reflektiv qobiliyatlarni rivojlantirishga sezilarli ijobiy ta'sirini ko'rsatadi. Sifatli intervyular, miqdoriy baholashlar va sinf kuzatuvlarining kombinatsiyasi natijasida bir nechta asosiy topilmalar paydo bo'ldi:

1. O'z-o'zini anglashning ortishi: Ishtirokchilar o'zlarining til o'rganish jarayonlari, jumladan, kuchli tomonlari, yaxshilanishi kerak bo'lgan sohalar va afzal ko'rgan o'rganish strategiyalari bo'yicha yuqori darajadagi o'z-o'zini anglashni namoyish etdilar.

2. Kengaytirilgan tanqidiy fikrlash: Ingliz tili darslarida reflektiv vazifalarni bajarish til mazmunini tahlil qilish, axborotni baholash va asosli xulosalar chiqarish kabi tanqidiy fikrlash ko'nikmalarini rivojlantirdi.

3. Metakognitiv o'sish: Talabalar takomillashtirilgan metakognitiv qobiliyatlarini, jumladan, maqsadlarni belgilash, o'z-o'zini nazorat qilish va strategik rejalashtirishni ko'rsatdi, bu esa yanada samarali ta'lim natijalariga olib keldi.

4. Muloqotning yaxshilanishi: Reflektiv amaliyotlar muloqot ko'nikmalarini yaxshilashga yordam berdi, bu ishtirokchilarning fikrlarini aniq ifodalash va tengdoshlari va o'qituvchilari bilan mazmunli muloqot qilish qobiliyatidan dalolat beradi.

5. Ijoby ta'lim munosabatlari: Ishtirokchilar o'rganishga ijoby munosabatda bo'lishdi, qiziquvchanlik, qat'iyatlilik va tavakkal qilish va xatolardan saboq olishga tayyorlik ko'rsatdilar.

Ushbu topilmalar birgalikda ingliz tilini o'qitishda reflektiv pedagogikani integratsiyalashning transformatsion salohiyatini ta'kidlaydi va boshlang'ich sinf o'quvchilari o'rtasida yaxlit ta'lim tajribasini rivojlantirishda reflektiv qobiliyatlarning rolini ta'kidlaydi.

## XULOSA

Xulosa qilib aytadigan bo'lsak, ushbu tadqiqot boshlang'ich sinf o'quvchilarida reflektiv qobiliyatlarni rivojlantirish uchun katalizator sifatida ingliz tilini o'rgatish samaradorligining ishonchli dalillarini taqdim etadi. Natijalar shuni ko'rsatadiki, ingliz tili darslarida maqsadli reflektiv amaliyotlar o'quvchilarning o'z-o'zini anglashi, tanqidiy fikrlash qobiliyati, metakognitiv o'sishi, muloqot qobiliyatlari va umumiy o'rganishga bo'lgan munosabatiga sezilarli hissa qo'shadi. Ushbu topilmalarning natijalari til ta'limidan tashqarida, fanlar bo'yicha fikr yurituvchi o'quvchilarni tarbiyalashga qaratilgan kengroq pedagogik amaliyotlarni qamrab oladi. Boshlang'ich ta'limning ajralmas qismi sifatida reflektiv ta'limga ustuvor ahamiyat berish orqali o'qituvchilar o'quvchilarga akademik muvaffaqiyat uchun muhim bo'lgan muhim kognitiv va metakognitiv kompetensiyalarga ega bo'lishga yordam beradi.

O'qituvchilar, o'quv dasturlarini ishlab chiquvchilar va siyosatchilar uchun reflektiv pedagogikaning transformatsion salohiyatini tan olishlari va ularni ta'lim asoslariga tizimli ravishda integratsiya qilishlari juda muhimdir. Hamkorlikda olib boriladigan tadqiqot harakatlari reflektiv o'qitish strategiyalarining turli kontekstlarda talabalarning akademik samaradorligi, shaxsiy rivojlanishi va kelajakdagi muvaffaqiyatlariga barqaror ta'sirini yanada o'rganishi mumkin. Aslini olganda, boshlang'ich sinflarda ingliz tilini o'rgatish orqali reflektiv ko'nikmalarni rivojlantirish nafaqat tilni bilish darajasini oshiradi, balki tez rivojlanayotgan global jamiyatda rivojlanish uchun zarur bo'lgan tanqidiy fikrlash, o'zini o'zi boshqarish va muloqot ko'nikmalariga ega bo'lgan o'quvchilar avlodini tarbiyalaydi.

## REFERENCES:

1. Bransford, J. D., Brown, A. L., & Cocking, R. R. How people learn: Brain, mind, experience, and school. National Academies Press. 2000
2. Bransford, J. D., Brown, A. L., & Cocking, R. R. How people learn: Brain, mind, experience, and school. National Academies Press. 2000
3. Dweck, C. S. Mindset: The new psychology of success. Random House. 2006
4. Dweck, C. S. Mindset: The new psychology of success. Random House. 2006
5. Farrell, T. S. C. Reflective language teaching: From research to practice. Bloomsbury Publishing. 2015
6. Farrell, T. S. C. Reflective language teaching: From research to practice. Bloomsbury Publishing. 2015
7. Farrell, T. S. C. Reflective practice in ESL teacher development groups: From practices to principles. Springer. 2018
8. Farrell, T. S. C. Reflective practice in ESL teacher development groups: From practices to principles. Springer. 2018
9. Hattie, J. Visible learning for teachers: Maximizing impact on learning. Routledge. 2012
10. Hattie, J. Visible learning for teachers: Maximizing impact on learning. Routledge. 2012
11. Hatton, N., & Smith, D. Reflection in teacher education: Towards definition and implementation. *Teaching and Teacher Education*, 11(1), 33-49. 1995
12. Hatton, N., & Smith, D. Reflection in teacher education: Towards definition and implementation. *Teaching and Teacher Education*, 11(1), 33-49. 1995
13. Khatib, M., & Tahriri, A. Enhancing critical thinking and metacognitive skills in ESL writing through peer feedback. *English Language Teaching*, 10(6), 1-11. 2017
14. Khatib, M., & Tahriri, A. Enhancing critical thinking and metacognitive skills in ESL writing through peer feedback. *English Language Teaching*, 10(6), 1-11. 2017
15. Kolb, D. A., & Kolb, A. Y. The learning way: Meta-cognitive aspects of experiential learning. *Simulation & Gaming*, 40(3), 297-327. 2009
16. Kolb, D. A., & Kolb, A. Y. The learning way: Meta-cognitive aspects of experiential learning. *Simulation & Gaming*, 40(3), 297-327. 2009
17. Li, J. Promoting autonomous language learning through reflective practice. *Language Teaching Research*, 19(2), 222-242. 2015
18. Li, J. Promoting autonomous language learning through reflective practice. *Language Teaching Research*, 19(2), 222-242. 2015
19. Mann, S., Gordon, J., & MacLeod, A. Reflection and reflective practice in health professions education: A systematic review. *Advances in Health Sciences Education*, 14(4), 595-621. 2009
20. Mann, S., Gordon, J., & MacLeod, A. Reflection and reflective practice in health professions education: A systematic review. *Advances in Health Sciences Education*, 14(4), 595-621. 2009
21. Mezirow, J. How critical reflection triggers transformative learning. In J. Mezirow (Ed.), *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning* (pp. 1-20). Jossey-Bass. 1990

22. Mezirow, J. How critical reflection triggers transformative learning. In J. Mezirow (Ed.), *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning* (pp. 1-20). Jossey-Bass. 1990
23. Botirova, Z. A. (2019). THE THEORETICAL ANALYSIS OF THE APPLICATION OF INFORMATION TECHNOLOGIES IN THE FIELD OF PRESCHOOL EDUCATION. *Scientific and Technical Journal of Namangan Institute of Engineering and Technology*, 1(11), 266-269.
24. Jalolov, S., & Botirova, Z. (2016). The role of motivation in the second language learning acquisition. In *Современные тенденции развития аграрного комплекса* (pp. 1752-1754).
25. Botirova, Z. X. (2021). Personality-orientated approach to teaching english vocabulary. In *МИРОВАЯ НАУКА 2021. ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ* (pp. 6-8).
26. Botirova, Z. H. K. (2020). Developing of lexical skills in English in secondary schools. *Scientific and Technical Journal of Namangan Institute of Engineering and Technology*, 2(1), 199-203.
27. Botirova, Z. X. Q. (2020). The importance of age factors on teaching English in grades 5-6. *Scientific and Technical Journal of Namangan Institute of Engineering and Technology*, 2(11), 381-384.
28. Kizi, B. Z. X. (2022). EXERCISE ANALYSIS DESIGNED TO DEVELOP LEXICAL COMPETENCE IN 6TH GRADE ENGLISH TEXTBOOKS. *Berlin Studies Transnational Journal of Science and Humanities*, 2(1.5 Pedagogical sciences).
29. Botirova, Z. H. K. (2020). Developing of lexical skills in English in secondary schools. *Scientific and Technical Journal of Namangan Institute of Engineering and Technology*, 2(1), 199-203.
30. Madumarov, T. T., & Alisherova, Z. B. K. (2021). TODAY'S ERA IS THE "NEW VOICE OF YOUTH". *Scientific progress*, 1(6), 353-357.
31. Ulugbekova, S., & Botirova, Z. (2023). THE PROFESSIONAL COMPETENCE OF TEACHERS. *Евразийский журнал академических исследований*, 3(1 Part 1), 45-48.
32. Botirova, Z., & Alijonova, G. (2022). DIGITAL EDUCATIONAL TECHNOLOGIES. *Евразийский журнал социальных наук, философии и культуры*, 2(13), 146-148.
33. Umrzoqov, I. I., Botirova, Z. H., & Sharipova, S. A. (2019). Holiday as a form of project activity. *Мировая наука*, 3 (24), 65-67.
34. Kizi, B. Z. X., & Kizi, A. G. A. (2023). ON TRAINING OF PEDAGOGICAL STAFF IN CONDITIONS OF DIGITALIZATION OF EDUCATION.
35. Hakimjonovna, B. P. (2023). TALABALAR BOG'LANISHLI NUTQINI O'STIRISHDA QO'LLANILADIGAN METODLAR: TALABALAR BOG'LANISHLI NUTQINI O'STIRISHDA QO'LLANILADIGAN METODLAR.
36. Ботирова, П. Х. (2023). Подход к описанию связной речи. *Строительство и образование*, 3(5), 49-61.

## ADEQUATE APPROACH TO THE DIAGNOSIS AND SURGICAL TREATMENT OF PATIENTS WITH OSTEOPOROTIC FRACTURES OF THE VERTEBRAL BODIES

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**Abstract:** Vertebral fractures due to osteoporosis are a significant medical and socioeconomic problem. Vertebroplasty is an effective treatment for vertebral fractures and pain relief against osteoporosis. Adequate conservative treatment of osteoporosis in the postoperative period slows down the progression of this disease and reduces the likelihood of new spinal fractures in the complex treatment of this disease.

The concept of vertebroplasty began to exist in clinical practice from the 70-80s of the last century as an open surgical intervention in which bone cement was injected to strengthen vertebral bodies before the installation of stabilizing systems. Some surgeons used this method to fill the empty space after resection of vertebral body tumor (Akhmedov Sh.Ch., 2017).

Percutaneous vertebroplasty was first performed in 1984 by Drs. Galibert and Deramond in the Department of Radiology at the University Hospital of Amiens, France, on a 54-year-old woman for an aggressive C2 vertebral hemangioma. Later PVP was performed for vertebral osteolytic metastases and secondary vertebral body collapse on the background of osteoporosis (Abakirov M.D., 2017).

Many clinical studies indicate significant regression of pain symptomatology in approximately 90% of cases of osteoporotic compression fractures (Makirov S.K. et al., 2016).

Despite the obtained positive results of using the PVP method in patients with osteoporosis of the spine, there are still some unresolved and controversial issues.

The conventional amount of cement to be injected according to the section of the affected vertebral column and the degree of compression of the vertebral body (Zaretskov V.V. et al. 2011).

**RESEARCH OBJECTIVE:** To achieve full restoration of spinal support and improve the effectiveness of treatment of patients with spinal osteoporosis.

**Materials and Methods:** The study material included 60 patients with osteopathic spinal fractures in the period from 2016 to 2023, who were treated at the Republican Specialized Scientific and Practical Center of Neurosurgery (Uzbekistan). The patients were divided into 2 groups: the first main group consisted of 24 (40%) patients who underwent program calculation of the bone cement volume required for

insertion into the body of the affected vertebra. The second control group consisted of 36 (60%) patients who did not undergo program calculation of the vertebral body tissue deficiency.

All patients underwent general and neurological examination, laboratory diagnostics and the most informative instrumental methods of research: spinal radiography, magnetic resonance imaging (MRI) of the spine - 76% of studies, computed tomography and multispiral computed tomography (CT/MSCT) of the spine 47%, X-ray densitometry (XRD) of the lumbar vertebrae 54% of patients with osteopathic spinal fractures.

Static processing of the material by methods of variation parametric and nonparametric statistics with calculation of the arithmetic mean of the studied index (X) according to the formula, using indicators of the mean square deviation (s), 5% value of the normal distribution (ta) - Laplace function, normal distribution (n) and mathematical expectation (a) was carried out.

To assess the clinical condition of patients (n=60), we used the VDS pain scale (Verbal Descriptor Scale-Gaston-Johansson F., Albert M., Fagan E. et al., 1990)

Also, we used the Oswestry scale with calculation of the ODI index (Jeremy C.T., Fairbank 1980) to assess the quality of life in all patients. All 60 (100%) patients underwent surgical intervention.

Indications for PVP in patients with spinal osteoporosis:

- The presence of pathologic fracture of vertebral bodies of various degrees, without compression of the spinal cord and its roots;
- the presence of intense localized pain in the spine that is not controlled by analgesics.

PVP accesses:

- transpedicular (82 vertebrae);
- transcostovertebral (46 vertebrae).

Phlebospindylography was performed in 37 (62%) patients on 83 (65%) vertebrae. At each phlebospindylography performed, the diameter of the draining veins of the vertebral bodies was measured using a computer program created by us.

The largest amount of bone cement injected by monolateral access was 4 ml, and by bilateral access 6 ml (Table 1.).

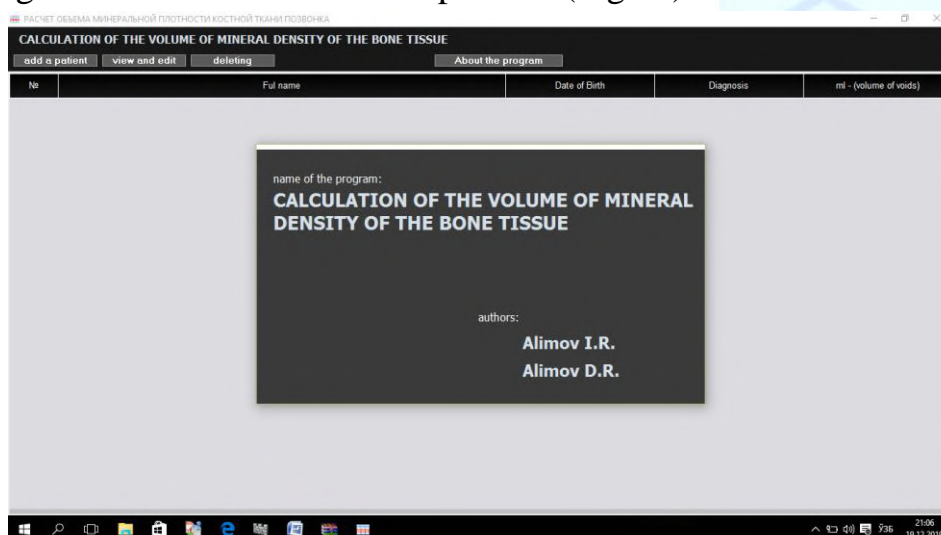
Access \ Volume (ml)	Monolateral	Bilateral	%
1,5 ml	3		2,3%
2.0 ml	28		21,9%
2.5 ml	8		6,3%
3.0 ml	22	7	22,65%



3.5 ml	4	4	6,3%
4.0 ml	2	24	20,31%
4.5 ml		20	15,6%
5.0 ml		2	1,56%
5.5 ml		1	0,78%
6.0 ml		3	2,3%
Overall patients	67	61	100%
	128		

**Table 1 shows that in the amount of bone cement, 4.5 ml or more was injected into the vertebral body only from bilateral access.**

The computer program "Calculation of the volume of bone mineral density" is designed to calculate the volume of vertebral mineral density, oriented by the data of electronic images of MSCT/CT studies of patients (Fig. 1.).



**Figure 1: Image of the computer program.**

By means of a computer program, we examined 24 (40%) patients and treated 65 vertebrae.

In the control group (n=36) of patients, the amount of bone cement injected into each vertebra from 78 vertebrae was as follows: 1.5 ml - 3 (4%) vertebrae, 2.0 ml - 29 (37.2%) vertebrae, 2.5 ml - 8 (10.3%) vertebrae, 3.0 ml - 24 (30.7%) vertebrae, 3.5 ml - 8 (10.3%) vertebrae, 4.0 ml - 5 (6.4%) vertebrae, 4.5 ml - 1 (1%) vertebrae. In this group of patients, program calculation of the volume of bone cement to be injected was not performed.

In the main group (n=24) of patients, the amount of bone cement injected into each vertebra from 78 vertebrae was: 3.0 ml - 8(16%) vertebrae, 4.0 ml - 19 (38%)

vertebrae, 4.5 ml - 17 (34%) vertebrae, 5.0 ml - 2 (4%) vertebrae, 5.5 ml - 1 (2%) vertebrae, 6.0 ml - 3 (6%) vertebrae.

Results: Assessment of patients' condition in the early postoperative period in both groups was carried out with the help of VDS and Oswestry scales.

According to the VDS scale in both groups there was a decrease of pain syndrome in the researched patients in the early postoperative period. Moreover, in the main group (n=24) the decrease of scale parameters to 0 points - 23 (95,8%) patients, to 2 points - 1 (4,2%) patients ( $0,13 \pm 0,05$ ), in the control group (n=36) the decrease of scale parameters to 0 points - 8 (22,2%) patients, to 2 points - 28 (77,8%) patients ( $1,55 \pm 0,24$ ). According to these data it can be noted that in patients in the main group complete regression of pain syndrome was observed more often (in 95.8% of cases) than in patients in the control group (in 22.2% of cases) (Diagram 1).

### Comparative VDS pain scores after surgery

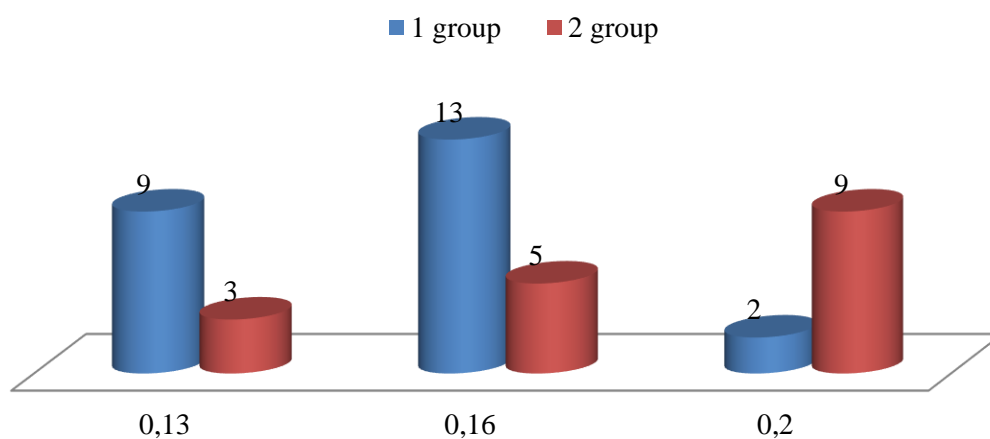


Diagram 1 shows that in the postoperative period in both groups of patients there was a decrease in pain not exceeding 2 points.

According to the Oswestry scale, both groups also showed improvement in the quality of life in the early postoperative period. Quality of life indicators in the main group (n=24) were: 13% - 9 (37.5%) patients, 16% - 13 (54.2%) patients, 20% - 2 (8.3%) patients ( $15,13 \pm 0,67$ ). In the control group (n=36): 13% - 3 (8.3%) patients, 16% - 5 (13.9%) patients, 20% - 9 (25%) patients, 23% - 10 (27.8%) patients, 26% - 9 (25%) patients ( $21,17 \pm 1,19$ ). Based on the Oswestry scale indicators, in the main group of patients in the early postoperative period the maximum decrease in the quality of life reached up to 20%, in the control group of patients up to 26% (Diagram №2).

### Comparative ODI quality of life scores after surgery

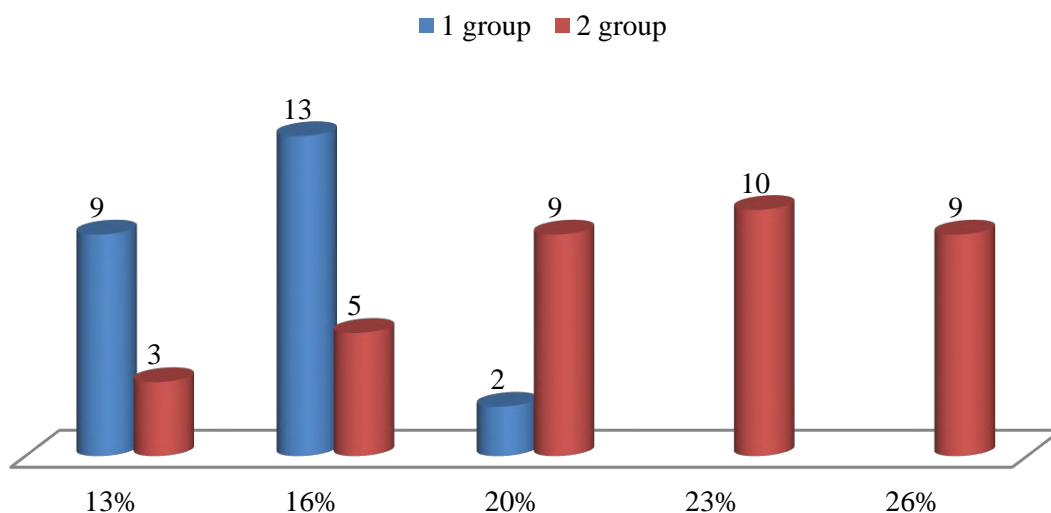


Figure 2 shows that in all (n=60) operated patients, the Oswestry index did not exceed 26%.

Comparative assessment of treatment efficiency in the early postoperative period of the main and control groups was carried out by applying the following criteria: good, satisfactory and unsatisfactory.

In this case, "good" result in the main group (n=24) was noted in 22 (92%) patients, "satisfactory" result in 2 (8%) patients. In the experimental group "good" result was achieved in 8 (22,2%), "satisfactory" result in 28 (77,8%) patients (Diagram №3).

### Evaluation indicators of treatment outcomes in the early postoperative period

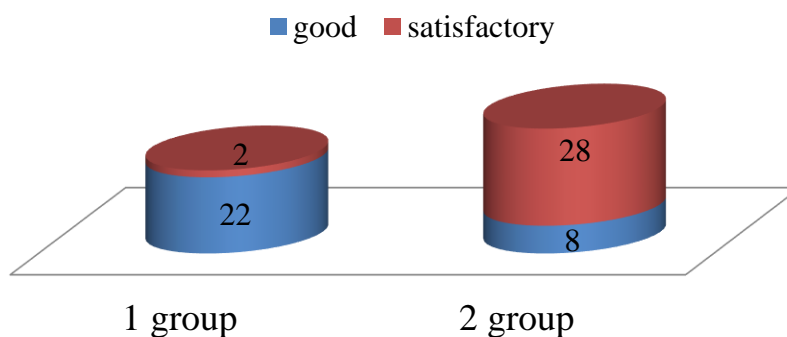
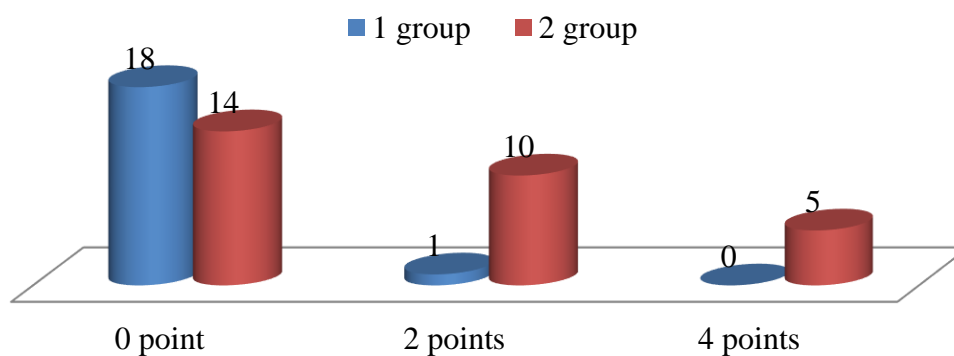


Diagram 3 shows that in the main group of patients a good result was achieved in 92% of patients, in the control group in 22.2% of patients.

The patients' condition in the late postoperative period was assessed in the same way. From 60 operated patients, catamnesis was studied in 48 (80%) patients; from the main group - 19 patients, from the control group - 29 patients. The follow-up period for the patients ranged from 6 months to 6 years (2016-2023).

According to the VDS scale in the late postoperative period, in the main group (n=19) the decrease of the scale scores to 0 points - 18 (94.7%) patients, to 2 points - 1 (5.3%) patients ( $0.08 \pm 0.01$ ), in the control group (n=29) the decrease of the scale scores to 0 points - 14 (48.3%) patients, to 2 points - 10 (34.4%) patients, to 4 points - 5 (17.3%) patients ( $1.38 \pm 0.01$ ). According to the late postoperative results of VDS scale in the first group of patients no special dynamics is noted. In the second group negative dynamics is noted in the form of pain up to 4 points in 17.3% of patients (Diagram 4).

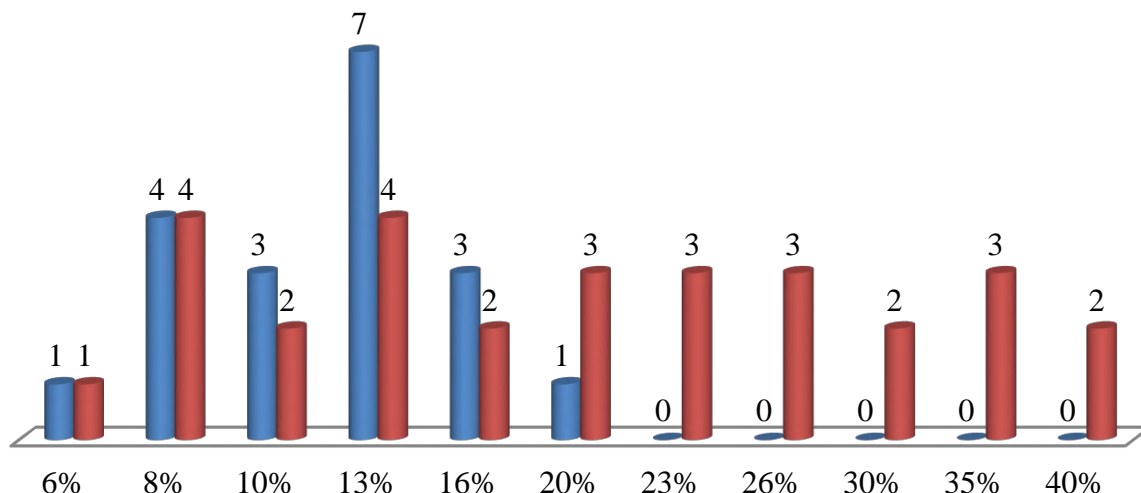
### VDS long-term treatment outcome measures



**Diagram 4 shows that in the 1st group of patients, 4 point pain sensation was not observed in patients, while in the 2nd group it was observed in 5 patients.**

Oswestry scale scores in the late postoperative period in the main group (n=19) were: 6% - 1 (5.3%) patient, 8% - 4 (21.05%) patients, 10% - 3 (15.9%) patients, 13% - 7 (36.8%) patients, 16% - 3 (15.9%) patients, 20% - 1 (5.3%) patient ( $11.95 \pm 0.01$ ). In the control group (n=29): 6% - 1 (3.4%) patient, 8% - 4 (13.4%) patients, 10% - 2 (6.7%) patients, 13% - 4 (13.4%) patients, 16% - 2 (6.7%) patients, 20% - 3 (10.3%) patients, 23% - 3 (10.3%) patients, 26% - 3 (10.3%) patients, 30% - 2 (6.7%) patients, 35% - 3 (10.3%) patients, 40% - 2 (6.7%) patients ( $19.97 \pm 3.24$ ). According to long-term postoperative results of the Oswestry scale, in the main group there are positive changes in the quality of life in 42% of patients with  $ODI < 13\%$ . In the control group  $ODI < 13\%$  were observed in 24% of patients (Diagram 5).

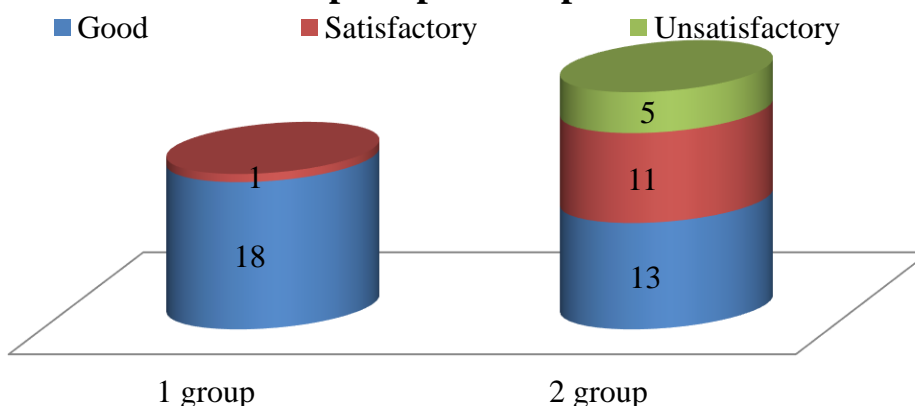
**ODI scores for distant treatment outcomes**



**Figure 5 shows that in group 1 of patients ODI did not exceed 20%, in group 2 ODI reached up to 40%.**

When evaluating the results of treatment in patients in the late postoperative period, we noted changes in the parameters in contrast to the early postoperative period in the control group of patients. In this case, in the main (n=19) group, the results evaluation indices did not change much, "good" - 18 (94.7%) patients, "satisfactory" 1 (5.3%) patients. In the control group (n=29) patients "good" result was achieved in 13 (44,8%) patients, "satisfactory" - 11 (37,9%) patients, "unsatisfactory" - 5 (17,2%) patients. It should also be noted that in the control group 17% of patients in the late postoperative period had an unsatisfactory result of treatment (Diagram 6).

**Indicators for evaluating the results of treatment in the late postoperative period**



Thus, it should be noted that in patients in the main group (n=24), the dynamics of clinical observations in the early postoperative and late postoperative periods tended to improve throughout the entire follow-up period. Whereas in the control group (n=36), negative dynamics was observed in 3 (8.3%) patients with recurrent vertebral body fractures.

### Conclusions:

Clinical and neurological manifestations of pathologic fractures of vertebral bodies against the background of osteoporosis are noted in the form of local pain syndrome reaching up to 8 points according to the VDS scale. The height of pain sensations does not depend on the degree and number of pathologic vertebral body fractures. Pain syndrome in pathologic fractures of vertebral bodies against the background of osteoporosis sharply worsens the quality of life of patients based on the ODI scale data up to 86%.

In patients with osteoporosis of the spine, due to degenerative and dystrophic processes in bone tissue, involution of the draining venous vessels of vertebral bodies occurs with a decrease in their diameter and venous outflow.

The use of percutaneous vertebroplasty in the treatment of pathologic vertebral body fractures against the background of osteoporosis with full restoration of vertebral body bearing capacity leads to significant regression of pain syndrome (95.8%).

The developed computer program "Calculation of the volume of bone tissue mineral density" allows us to reliably determine the volume of the required amount of bone cement to be injected into the affected vertebra, thereby contributing to the full restoration of bearing capacity of the damaged vertebrae.

A comparative analysis of the results of monolateral and bilateral accesses when performing percutaneous vertebroplasty in patients with spinal osteoporosis shows that the amount of bone cement injected does not exceed 4 ml when using monolateral access, while the amount of bone cement injected when using bilateral access reaches 6 ml and more.

### References:

1. Abakirov M.D., Abdrakhmanov R.R., Mader A.E., Borisov Y.A. Minimally invasive surgery for fractures in the thoracolumbar spine in patients of the older age group // Chapter of Traumatology and Orthopedics. 2017. № 1 (21). С. 10-15.
2. Alekseev, S.P.; Fedoruk, A.L. Experience of treatment of vertebrogenic radiculopathies of the lumbar spine in elderly and senile patients // Ukrainian Neurosurgical Journal. 2007. № 3. С. 41a.
3. Anisimova, A.S.; Toma, A.I.; Norkin, A.I.; Toma, A.S. Differentiated approach to the use of puncture kypho and vertebroplasty in spinal fractures // Electronic scientific and educational bulletin Health and education in the XXI century. 2012. Т. 14. №5. С. 39-41.
4. Akhmedov Sh.Ch., Khanapiyaev U.B., Kobilov A.O., Razhabov A.A., Abdiev Sh.E., Rakhmatov A.M., Ergashev F.F. Puncture methods of treatment of multiple osteoporotic pathologic fractures of vertebral bodies // Journal of Theoretical and Clinical Medicine. 2017. № 3. С. 80-83.

5. Dobrovolskaya O.V. Complicated osteoporosis: bone mineral density of different parts of the skeleton, quality of life, adherence to therapy and treatment costs : abstract of Ph.D. in Medicine : 14.01.22. - Moscow, 2016. С. 22.
6. Evstigneeva L.P., Solodovnikov A.G., Ershova O.B., Belova K.Y. et al. Osteoporosis. Diagnosis, prevention and treatment. Clinical recommendations (Second edition, revised and supplemented). Moscow, 2010. С. 33-37.
7. Zaretskov V.V., Sumin D.Yu., Arsenievich V.B., Likhachev S.V., Zueva D.P., Artemov L.A., Norkin A.I., Titova Y.I. Vertebroplasty for lumbar vertebral body injuries in patients with osteoporosis // Spine Surgery. 2011. № 3. С. 26-30.
8. Makirov S.K., Golubeva A.S., Sychenikov B.A. Application of different bone-plastic materials in vertebro- and kyphoplasty to improve the results of surgical treatment of patients with vertebral body compression fractures (literature review) // RMZh. 2016. Т. 24. № 23. С. 1574-1579.
9. Shatursoonov Sh.Sh., Sattarov A.R., Musaev R.S., Baboev A.S., Kobilov A.O. Puncture vertebroplasty with bone cement for osteoporotic fractures of the thoracolumbar vertebral bodies //Orthopedics, Traumatology and Prosthetics. 2014. № 1 (594). С. 10-14.
10. Ahn DK, Lee S, Kim DG, Shin WS.Percutaneous vertebroplasty using fresh frozen allogeneic bone chips as filler.Clin Orthop Surg. 2014 Mar;6(1): P. 49-55.
11. Ar Dafydd D, Salem S, Zerizer I, Yan Mok W, Gishen P, Patel MC, Patel NH, Al-Nahhas A, Dunn J, Win Z.The value of combined assessment of vertebral fractures with <sup>99m</sup>Tc MDP scintigraphy and MRI in selecting and planning percutaneous vertebroplasty.Nucl Med Commun. 2014 Jul;35(7): P. 55-61.
12. Chen D, An ZQ, Song S, Tang JF, Qin H.Percutaneous vertebroplasty compared with conservative treatment in patients with chronic painful osteoporotic spinal fractures.J Clin Neurosci. 2014 Mar;21(3): P. 473-477.
13. Jurczynszyn A, Czepko R, Banach M, Godlewski B, Czepko RA, Masłowski P, Skotnicki AB.Percutaneous Vertebroplasty for Pathological Vertebral Compression Fractures Secondary to Multiple Myeloma--Medium-Term and Long-Term Assessment of Pain Relief and Quality of Life. Adv Clin Exp Med. 2015 Jul-Aug;24(4): P. 651-656.
14. Song X, Wang W, Yan Y, Zuo J, Yao N, Lin H.Оценка клинического эффекта чрескожной вертебропластики в сочетании с внешним фиксатором позвоночника для лечения остеопоротических компрессионных переломов с задним дефектом позвонка.Eur Spine J. 2014 Dec;23(12): P. 2711-2717.
15. Yan Y, Xu R, Zou T.Is thoracolumbar fascia injury the cause of residual back pain after percutaneous vertebroplasty. A prospective cohort study.Osteoporos Int. 2015 Mar;26(3): P. 1119-1124.

## WEB DASTURLASHNI O'QUVCHILARGA O'RGATISH TEXNOLOGIYALARI

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**Abstrakt:** Veb-ishlab chiquvchilarga bo'lgan talab ortib borar ekan, talabalarni veb-dasturlash bo'yicha malakali ko'nikmalar bilan jihozlash muhimligini unutib bo'lmaydi. Bugungi raqamli asrda veb-saytlar biznesning do'konlari, aloqa platformalari va ma'lumotlarga kirish eshigi bo'lib xizmat qiladi. Talabalarga veb-dasturlashni o'rgatish innovatsion texnologiyalar va usullarning kuchidan foydalanadigan dinamik va moslashuvchan yondashuvni talab qiladi. Ushbu maqolada biz veb-dasturlashni samarali o'rgatish uchun turli strategiyalar va vositalarni o'rganamiz, talabalarga World Wide Webning doimiy rivojlanib borayotgan landshaftida malakali dasturchilar bo'lish imkoniyatini beradi.

**Kalit so'zlar:** veb-dasturlash , interkativ o'qitish texnologiyalari, dasturlash tillari, ta'lim strategiyasi , informatika ta'limi

### Web dasturlashni o'rgatishning ahamiyati

Veb-dasturlash tillar, ramkalar va texnologiyalarning keng doirasini qamrab olgan zamonaviy internet ekotizimining asosini tashkil qiladi. Veb-dasturlash bo'yicha malaka talabalarga interaktiv, sezgir va foydalanuvchilarga qulay veb-saytlar va veb-ilovalarni loyihalash va ishlab chiqish imkonini beradi. Bundan tashqari, korxonalar maqsadli auditoriyaga erishish va operatsiyalarni soddalashtirish uchun raqamli platformalarga tobora ko'proq tayanayotganligi sababli, malakali veb-ishlab chiquvchilarga talab ortib bormoqda.

Veb-dasturlashni o'rgatish nafaqat talabalarni texnik ko'nikmalar bilan ta'minlaydi, balki ijodkorlik, muammolarni hal qilish va hamkorlikni rivojlantiradi. Talabalarni real loyihalar va amaliy mashg'ulotlarga jalb qilish orqali o'qituvchilar veb-ishlab chiqish tushunchalari va amaliyotlarini chuqur tushunishlari, talabalarni jadal rivojlanayotgan sanoatda martaba tayyorlashlari mumkin.

Veb dasturlashni o'rgatishning innovatsion texnologiyalari va usullari

Loyihaga asoslangan ta'lim (PBL): Loyihaga asoslangan ta'lim o'quvchilarni funktsional veb-saytlar yoki veb-ilovalarni ishlab chiqish uchun veb-dasturlash tushunchalari va ko'nikmalarini qo'llagan haqiqiy dunyo ssenariylariga jalb qiladi. Mazmunli loyihalar ustida ishlash orqali talabalar amaliy tajribaga ega bo'ladilar, muammolarni hal qilish ko'nikmalariga ega bo'ladilar va o'z bilimlariga egalik tuyg'usiga ega bo'ladilar. PBL hamkorlikni, tanqidiy fikrlashni va ijodkorlikni rag'batlantiradi, bu uni veb-dasturlashni o'rgatishning samarali usuliga aylantiradi.



Interfaol onlayn platformalar: Codecademy, FreeCodeCamp va Udacity kabi interaktiv onlayn platformalar o'quvchilarga veb-dasturlashni o'z tezligida o'rganish imkonini beruvchi interaktiv darsliklar, kodlash muammolari va loyihalarni taqdim etadi. Ushbu platformalar tezkor fikr-mulohazalarni, shaxsiylashtirilgan o'rganish yo'llarini va amaliy amaliyotni ta'minlaydi, bu ularni mustaqil o'quvchilar uchun ideal vositaag aylantiradi va an'anaviy sinflar o'rnini bosadi.

O'yinlashtirish: O'yinlashtirish o'rganish tajribasiga ochkolar, nishonlar, peshqadamlar jadvali va mukofotlar kabi o'yin elementlarini jalb qilish va motivatsiyani oshirishni o'z ichiga oladi. Veb-dasturlash darslarini o'yin shaklida o'tkazish orqali o'qituvchilar o'rganishni qiziqarli va interaktiv qilishlari mumkin, bu esa talabalarda raqobat ruhini va muvaffaqiyat tuyg'usini rivojlantirishi mumkin. CodeCombat va Code.org kabi platformalar o'yinga asoslangan muammolar va boshqotirmalar orqali dasturlash tushunchalarini o'rgatish uchun gamifikatsiyadan foydalanadi.

Virtual va kengaytirilgan haqiqat: Virtual va kengaytirilgan haqiqat texnologiyalari veb-dasturlashni o'rgatishni yaxshilaydigan chuqur o'rganish tajribasini taklif etadi. Virtual haqiqat muhitlari talabalarga 3D makonida veb-ishlab chiqish kontseptsiyalarini o'rganish imkonini beradi, kengaytirilgan haqiqat esa raqamli kontentni jismoniy dunyoga joylashtiradi va interaktiv namoyishlar va simulyatsiyalarni taqdim etadi. Virtual va kengaytirilgan haqiqatni veb-dasturlash o'quv dasturlariga kiritish orqali o'qituvchilar talabalarni tajribaviy o'rganishga jalb qilishlari va murakkab tushunchalarni chuqurroq tushunishlarini osonlashtirishlari mumkin.

Jonli kodlash sessiyalari: Jonli kodlash seanslari o'qituvchilarni real vaqt rejimida veb-dasturlash tushunchalari va usullarini namoyish etishni o'z ichiga oladi, bu talabalarga kuzatib borish, savollar berish va darhol fikr-mulohazalarni olish imkonini beradi. Jonli kodlash mashg'ulotlari shaxsan yoki Twitch yoki YouTube kabi jonli translyatsiya platformalari orqali o'tkazilishi mumkin, bu o'qituvchilarga talabalarning keng auditoriyasini qamrab olish imkonini beradi. O'qituvchilar o'zlarining fikrlash jarayonlari va muammolarni hal qilish strategiyalarini namoyish etish orqali veb-dasturlashni yo'q qilishlari va talabalarni ushbu sohani yanada chuqurroq o'rganishga ilhomlantirishlari mumkin.

Tengdosh-tengdoshga usuli: Tengdoshlarni o'rgatish jamoalari o'quvchilarga hamkorlik qilish, bilim almashish va o'quv sayohatlarida bir-birlarini qo'llab-quvvatlash imkoniyatini beradi. Onlayn forumlar, kodlash klublari va xakatonlar tengdoshga o'rganishni osonlashtiradi, bu erda talabalar maslahat so'rashlari, fikr almashishlari va loyihalar ustida birgalikda ishlashlari mumkin. Hamjamiyat va do'stlik tuyg'usini tarbiyalash orqali, tengdoshlarni o'rganish jamoalari o'quvchilar

tavakkal qilish va tengdoshlaridan o'rganish imkoniyatini his qiladigan qo'llab-quvvatlovchi muhitni yaratadilar.

Sanoat hamkorliklari va stajirovkalari: Sanoat hamkorligi va amaliyotlari akademiya va ishchi kuchi o'rtasidagi tafovutni yo'qotib, talabalarga qimmatli amaliy tajriba va sanoat tushunchalarini beradi. Texnologiya kompaniyalari, startaplar va notijorat tashkilotlar bilan hamkorlik qilish talabalarga real loyihalar ustida ishlash, sanoatning ilg'or tajribalari bilan tanishish va professional tarmoqlarni yaratish imkonini beradi. Tarmoqli hamkorlik va amaliyotlarni veb-dasturlash o'quv rejalariga kiritish orqali o'qituvchilar talabalarni mehnat bozori talablariga tayyorlashlari va akademiya sanoatga uzluksiz o'tishni ta'minlashlari mumkin.

### Xulosa

Veb-dasturlashni o'rgatish ko'p qirrali yondashuvni talab qiladi, bu talabalarni jalb qilish va ularni malakali dasturchilar bo'lish imkoniyatini berish uchun innovatsion texnologiyalar va usullardan foydalanadi. Loyihaga asoslangan ta'lim, interaktiv onlayn platformalar, o'yinlar, virtual va kengaytirilgan reallik, jonli kodlash seanslari, tengdoshlarni o'rganish hamjamiyatlari va sanoat hamkorliklarini o'zlashtirib, o'qituvchilar talabalarni jadal rivojlanayotgan veb sohasida muvaffaqiyatga tayyorlaydigan dinamik va immersiv o'rganish tajribasini yaratishi mumkin. Internet rivojlanishda va kengayishda davom etar ekan, malakali veb-dasturchilarga bo'lgan ehtiyoj tobora ortib boradi, bu esa samarali veb-dasturlash ta'limini har qachongidan ham muhimroq qiladi. Innovatsiyalarni o'zlashtirib, texnologiya qudratini o'zlashtirgan holda, o'qituvchilar o'quvchilarni raqamli asrda rivojlanish uchun zarur bo'lgan bilim, ko'nikma va fikrlash tarzi bilan qurollantirishi mumkin.

### Foydalanilgan adabiyotlar:

1. A. O. Mirzamahmudov, "Veb dasturlashni o'rgatishning zamonaviy usullari", "International Journal of Emerging Technologies in Learning", jild. 14, 6, 51-59-betlar, 2019 yil.
2. S. Ochilov, "Web dasturlashni o'rgatishda innovatsion usullar", Informatika ta'limi jurnali, jild. 23, 1, 15-22-betlar, 2020 yil.
3. T. Tursunov, "Ajam o'quvchilarga veb-dasturlashni o'rgatishning samarali usullari", "Ta'lim va elektron ta'lim" xalqaro konferensiyasi, Toshkent, 2018 yil.
4. H. O. Sobirov, "Web-dasturlashni o'rgatishda amaliy loyihalarni integratsiyalash", Journal of Information Technology Education, jild. 12, 45-52-betlar, 2017 yil.
5. N. K. Abdullaev, "Veb dasturlashni o'rgatishda muammoli ta'limning o'rni", O'zbekiston informatika jamiyati ma'lumotlari, Samarqand, 2016 yil.

## TA'LIM TIZIMIDA MAHORATLI INNAVATSION PEDAGOG IMIDJINI O'RGANISH, BAHOLASH, OMMALASHTIRISH

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**Annotatsiya:** Mazkur maqolada umumiy o'rta ta'lim maktablarida faoliyat olib borayotgan namunali, ijodkor pedagoglar ish faoliyatidagi innovatsion g'oyalarni o'rganish, yutuqlarini taxlil qilish, baholash, va ommalashtirish jarayonini o'rganib borishdan iboratdir. Ushbu pedagog xodimning, kamtarona faoliyatidagi kishi bilmas ijodkorlik kompetentlari samarasi taxlil qilinadi.

**Kalit so'zlar:** o'qituvchi, uzluksiz ta'lim, pedagogik texnologiya, axborot texnologiya, axborot-kommunikatsion texnologiyalari(AKT), nutq madaniyati, innovatsiya, pedagogik imidj, musiqa va sana't, psixologik holat.

**Аннотация.** В этой статье рассматриваются изучение новаторских идей образцовых, творческих педагогов, работающих в общеобразовательных школах, анализ их достижений, оценка и популяризация. Анализируется эффективность творческих компетенций этого педагогического работника в его скромной работе.

**Ключевые слова:** педагог, непрерывное образование, педагогические технологии, информационные технологии, информационно-коммуникационные технологии (ИКТ), культура речи, инновации, педагогический образ, музыка и искусство, психологическое состояние.

**Annotation.** This article discusses the study of innovative ideas of exemplary, creative teachers working in secondary schools, analysis of their achievements, evaluation and popularization. The effectiveness of the creative competencies of this teacher in his humble work is analyzed.

**Keyword:** teacher, continuing education, pedagogical technologies, information technologies, information and communication technologies (ICT), speech culture, innovation, pedagogical image, music and art, psychological state.

Zamonaviy dunyoda ta'limni rivojlantirish va uni isloh qilish vazifalarini belgilashda uning sifatini ta'minlash masalalari ustuvor o'rin tutadi. Jamiyatini modernizatsiya qilishning zamonaviy tendensiyalari nuqtai nazaridan o'quvchilarning ta'lim sifatini boshqarish muammosida ta'lim sifatini oshirish muhim bo'lib, yildan-yilga uning dolzarbligi ortib bormoqda. Shuni ta'kidlash kerakki, ta'lim sifati muammosi murakkab va keng qamrovli masala.

O'quv jarayonida o'quvchilarga shaxs sifatida qaralishi, turli pedagogik texnologiyalar hamda zamonaviy uslublarni qo'llanishi, ta'lim taraqqiyotning ilm-fan, texnika, ishlab chiqarish va texnologiyaning jadal rivojlanishi jamiyat hayotining barcha sohalarida taraqqiyotining yangi istiqbollari ochib berdi. Bunday vazifalarni amalga oshirishda interfaol uslublarni va pedagogik texnologiyalardan samarali foydalanish yaxshi natija bermoqda. Shu bois ham ta'lim muassasalaridagi ilg'or pedagog kadrlar o'z sohalarini bo'yicha olib borayotgan dars mashg'ulotlarida innovatsion texnologiyalarni o'z o'rnida qo'llashni bilishlari zarur. O'quvchilarga ta'lim va tarbiya berishda kuproq natijaga ega bo'lish uchun o'tmish allomalarimizning go'ya va qarashlaridan foydalangan holda innovatsion va axborot texnologiyalarni qo'llash zarur. Ushbu zamonaviy metodlar o'quvchilarda mantiqiy, aqliy, ijodiy, tanqidiy, mustaqil fikrlashni shakllantirishga qobiliyatlarni rivojlantirishga hamda yetuk mutaxassis bo'lishlariga yordam beradi. Dars jarayonida interaktiv metodlar va yangi pedagogik texnologiyalarni qo'llash o'qituvchidan mahorat talab etadi. Hozirgi kunda interfaol uslublarning soni juda hilma-hil bo'lib ta'lim-tarbiya jarayonida keng qo'llanib kelinmoqda. Interfaol ta'lim usullaridan dars jarayonida foydalanib, ijobiy natijaga ega bo'lish eng avvalo, yosh avlodga ilmiy bilimlar asoslarini puxta o'rgatish, ularda keng dunyoqarash hamda tafakkur ko'lamini hosil qilish, ma'naviy axloqiy sifatlarni shakllantirish borasidagi ta'limiy-tarbiyaviy ishlarni samarali tashkil etishga bog'liqdir. Zero, yurtning porloq istiqbolini yaratish, uning nomini jahonga keng yoyish, ulug' ajdodlar tomonidan yaratilgan milliy-madaniy merosni jamiyatga namoyish etish, ularni boyitish, mazmunida barkamol shaxs va malakali mutaxassisni tarbiyalab voyaga yetkazish jarayonining mohiyatini to'laqonli ochib berilgandir.



1-rasm. Alikulova Z.X.

Toshkent shahar Bektemir tumani 291-DUM musiqa madaniyati fani o'qituvchisi **Alikulova Zuhra Xayrullova** misolida ko'rib chiqamiz.

Demak, musiqa ta'limining oliy maqsadi: "musiqani idrok eta oladigan, yetuk, barkamol, madaniyatli, nafaqat o'z milliy an'analarini, balki boshqa millatlar madaniyatidan boxabar va bu an'ana, madaniyatlarini xurmat qiladigan qilib voyaga yetkazishdan iboratdir, deb xisoblaydigan **Alikulova Z.X.** bir necha yillik tajribalaridan kelib chiqib.

**Birinchidan**, u professional tarzdagi tashkiliy qobiliyatlar: pedagog sifatida har doim o'zini tahlil etib borish, bolalar faoliyati ustidan tezkor nazoratni ta'minlash, bolalarning pedagogik ta'sirga bo'lgan munosabatini hisobga olgan holda, o'z vaqtida o'quvchini yo'naltirish va berilgan pedagogik vazifalarni to'g'rilashni oqilona amalga

oshirish, belgilangan vazifalarga erishish uchun ko'rsatmalarni bajarish, bolalar o'rtasidagi munosabatlarni tartibga solish, bolalarning muvaffaqiyatlari va yutuqlarini hisobga olgan holda faoliyatni rag'batlantirish, dars, o'zlashtirishdagi talablarning eng optimal shaklini topish va ularni bolalarning individual xususiyatlariga va muayyan pedagogik sharoitlarga qarab o'zgartirish, vazifalarni aniq, qisqa va oson tushuntirish kabilarga dastur amal sifatida foydalanganligi.

**Ikkinchidan**, tahliliy qobiliyatlar: olingan natijalarni dastlabki ma'lumotlar va qo'yilgan pedagogik vazifalar bilan solishtirganda tahlil qilish, musiqiy faoliyatdagi yutuq va kamchiliklarning mohiyatini tahlil qilish, erishilgan natijalarni tahlil qilish asosida o'z tajribasini pedagogik nazariya bilan bog'lash, pedagogik vazifalarni ilgari surish va asoslashlari barobarinda **Alikulova Z.X.**, "o'z faoliyatini doimo tahlil qilib, unga nisbatan tanqidiy munosabatda bo'lishi zarur", deb xisoblaydilar.



2-rasm. **Alikulova Z.X.** ning jamoadagi munosabatidan lavha.

**Uchinchidan**, muloqot qobiliyatlari: musiqa o'qituvchisi bolalar va ularning ot-onalari bilan munosabatlar o'rnatadi, bolalarni axloqiy, estetik jihatdan tarbiyalaydi, har bir bolaga individual yondashishni ta'minlaydi. Zero, musiqiy va tarbiyaviy faoliyatning asosi muloqotdir. Bolalar bilan muloqot qilish qobiliyati ularga muhabbatsiz rivojlanmaydi. Jamoadagi munosabatlar ko'p jihatdan tarbiya, ta'lim va

o'qitishdagi muvaffaqiyatni belgilaydi. Bu o'qituvchining muloqot qobiliyatining mazmuni va ahamiyatini belgilaydi.

**To'rtinchidan**, loyihalash qobiliyatlari: pedagogik faoliyat natijalarini loyihalash qobiliyati, ularni amalga oshirish yo'llarini rejalashtirish, har bir bolaning va guruhning musiqa fanini o'zlashtirishini loyihalash, tarbiya va ta'lim natijalarini, bolalarni musiqiy tarbiyalash va o'qitishda yuzaga kelishi mumkin bo'lgan qiyinchiliklarni oldindan ko'ra bilish, aniq vazifalarni ajratib ko'rsatish va shakllantirish. Yuqoridagilarni umumlashtirgan holda shuni ta'kidlaymizki, bo'lajak musiqa o'qituvchisining pedagogik faoliyati – bu maxsus bilim, ko'nikma va malakalar, tashkilotchilik qobiliyatiga egalik, kasbiy tayyorgarlikning yuqori darajasi, kasbda o'z-o'zini anglash, doimiy o'z-o'zini takomillashtirish, muloqot qilish va har bir bolaga to'g'ri yondashuvni topish qobiliyatlarini namoyon qilishdir. Bu uning ijodiga bo'lgan ulkan qiziqish, o'z oldida turgan vazifasini tushunish, san'atdagi o'rni, yuksak shaxsiy madaniyati va kasbiy ishtiyoqi orqali yo'lga qo'yiladigan pedagog sifatidagi kelajagi hisoblanadi. Biz pedagogik mahoratning asosiy tarkibiy qismlarini o'rganar ekanmiz, yuqoridagi barcha jihatlar musiqa o'qituvchisining kasbiy faoliyatiga to'liq taalluqli ekanligiga amin bo'lamiz. Musiqa o'qituvchisida pedagogik mahoratni shakllantirish shaxs madaniyatiga, o'sib borayotgan shaxsning o'z vaqtida va to'liq ijtimoiylashuviga hissa qo'shishga, bolani ma'naviy, axloqiy va estetik jihatdan tarbiyalashga qaratilgandir.

**Natija:** "Psixolog A.Lyublinskayaning fikricha, go'dakning 10-12-kunlarida eshitish organi ishga tushar ekan. Ikki oylik go'dak esa, musiqa tovushlarini eshitganda, qimirlamay, jim bo'lib qolar ekan. 4-5-oylarida bola tovush kelayotgan tomonga qaray boshlaydi." Bundan ko'rinadiki, ilk bolalik davrlaridayoq go'daklarda musiqa tovushlariga nisbatan shaxsiy munosabat shakllana boradi. Birinchi yilining oxirlarida bolaning umumiy eshitish hissi shakllanadi. Bolakay kattalardan har xil musiqani tinglab uni o'ziga xos intonatsion (o'xshash ovozlari chiqarib) xirgoyi qiladi. Musiqaga nisbatan emotsional munosabat bildirish, eshitish hissiyotlarini rivojlantirish ilk bolalikdan musiqiy tarbiyani amalga oshirishga xizmat qiladi. Aytishlaricha, musiqani barcha eshitadi, biroq uni hamma ham tinglab idrok eta olmaydi. Musiqa tinglash va uni idrok etish musiqa faoliyatining shunday turiki, u bolalikdan tarbiyalanadi va singdirib boriladi. Musiqani tinglash jarayonida idrok etish darajasi tinglovchining umumiy madaniyati va musiqiy tayyorgarlik darajasiga bog'liqdir. Musiqiy asarning to'liq va chuqur idrok etilishi, shuningdek, kompozitor va ijrochi mahoratidan ham dalolat beradi. Ana shu tarzda, tinglash jarayoni tinglovchining tarbiyasi, individual qobiliyatlari va tayyorgarligi bilan ajralmas holat deb xulosa qilish mumkin. Musiqani idrok etish psixologik jarayon bo'lib undan ma'naviy oziqa olish uchun inson go'zallikni his eta oladigan sof qalb egasi, o'z kasbiga, Vataniga mehr qo'ygan yuksak madaniyatli shaxs bo'lmog'i kerak. Yuqorida qayd etganimizdek,

musiqa asarni ongli idrok etish asar mazmunini ochishda va o'quvchilarga musiqiy tajribalarni to'plashda, ularning ma'naviy dunyosini boyitishda yordam beradi. Musiqa tarbiyasi emotsional onglilik prinsipining uyg'unlashishi, ko'payishi orqali tinglanadigan asarni to'g'ri baholay olish imkoniyatlarini rivojlantiradi. Badiiy va texnik bosqich prinsipi asarning badiiy va ifodali ijro etish uchun malakali kadrlarni talab etadi. O'quvchilarda kuylash malakalarini egallashlariga e'tibor beradi. O'quvchilarga musiqaning rivojlanish prinsiplari to'g'risidagi tasavvurlarini shakllantirish, qobiliyatlarining rivojlantirilishi natijasida ular yangi musiqiy tushunchalarni bilib olishadi.

Dars samaradorligini oshirishda o'qituvchiga tayyorgarligi yaxshi bo'lgan o'quvchilarga va musiqa sohasida muvaffaqiyat qozongan iqtidorli sinflar uchun dastur talabini bir oz oshirish huquqi berish muhim ahamiyatga ega. Ayni vaqtda o'quvchilarga yakka tartibda musiqa o'rgatish, tashkillashtirishga e'tibor berish, bu ishga ota-onalar jamoatchiligini ham jalb etish lozim. O'qitish davrida musiqa sohasida



3-rasm. Alikulova Z.X.ning faoliyatidan lavha

muntazam ravishda ish olib borilishi natijasida o'quvchilar musiqa savodiga ega bo'lib, musiqani sevadigan, yirik musiqa asarlarini, shuningdek, konsertlarni, radio va televideniye orqali beriladigan musiqali eshittirishlarni mehr qo'yib tinglaydigan, badiiy havaskorlik to'garaklarida yetarli tayyorgarlik bilan faol qatnashadigan kishilar bo'lib yetishadilar. Bu tadbirlarni amalga oshirishda sinf rahbarlari va ota-onalar musiqa o'qituvchisiga yaqindan yordam berishlari zarurdir. Hozirgi zamonaviy ta'lim tizimida zamonaviy texnik vositalar: DVD, MP -3, televizor, kompyuterlardan foydalanib musiqiy darslarni tashkil etish, texnika yangiliklaridan hamda ijtimoiy fanlar pedagogika, xususiy mutaxassislik bo'yicha ilg'or texnologiyalar asosida darslarni olib borish ko'zda tutilgan.

#### REFERENCES

1. O'zbekiston Respublikasining "Ta'lim to'g'risida"gi qonuni 2020-yil 23-sentyabr O'RQ-637-son
2. Абдуллаева, Ш. А. (2018). СОВРЕМЕННЫЕ ПЕДАГОГИЧЕСКИЕ ПРОБЛЕМЫ СРЕДНЕЙ ШКОЛЫ. Редакционная коллегия, 459.
3. Abdullayeva G.A. QUALITY OF EDUCATIONAL WORK IN THE GENERAL SECONDARY EDUCATION SYSTEM AS A PROBLEM // Экономика и социум. 2021. №11-1 (90). URL: <https://cyberleninka.ru/article/n/quality-of-educational-work-in-the-general-secondary-education-system-as-a-problem> (дата обращения: 10.05.2023).
4. G.M.Anorqulova "Ta'lim texnologiyalari"-Toshkent:"Innovatsiya– Ziyoy" 2021-yil 3-bet.

## АСКАРИД-АССОЦИИРОВАННАЯ ЭПИЛЕПСИЯ

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## ASCARIS LUMBRICOIDES ASSOCIATED EPILEPSY

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**Абстракт:** Эпилепсия оказывает значительное влияние на здоровье населения. В этой статье представлен обзор гельминтозов и эпилепсии по отдельности, объяснена связь между ними и обсуждаются как диагностические проблемы выявления этого состояния, так и варианты лечения эпилепсии, связанной с гельминтозом. Также меры профилактики и контроля являются важнейшим аспектом. Наконец, в заключении суммируются основные выводы и подчеркивается необходимость будущих исследований в этой области.

**Ключевые слова:** *Ascaris lumbricoides, эпилепсия, судороги*

**Abstract:** Epilepsy has a significant impact on public health. This article provides an overview of helminthiases and epilepsy separately, explains the relationship between them, and discusses both the diagnostic challenges of identifying this condition and treatment options for helminthiasis associated epilepsy associated. Also, prevention and control measures are the most important aspect. Finally, the conclusion summarizes the main findings and highlights the need for future research in this area.

**Keywords:** *Ascaris lumbricoides, epilepsy, seizures.*

**Введение.** Эпилепсия, связанная с гельминтозами, относится к судорогам, которые представляют собой повторяющиеся изменения в поведении человека, вызванные аномальной электрической активностью в мозге, связанной с нейровоспалением. Это тип «симптоматической» эпилепсии, относящийся к эпилепсии, вызванной основным заболеванием, а не к «идиопатической» эпилепсии, причина которой неизвестна.

*Ascaris lumbricoides* передается при проглатывании яиц с эмбрионами из загрязненного фекалиями материала. Предрасполагающие факторы включают бедность, плохие санитарные условия, неадекватное удаление сточных вод и плохую личную гигиену. Наибольшая распространенность наблюдается у детей в возрасте до 5 лет.



Эпилепсия в целом оказывает большое влияние на здоровье населения. Из-за большого бремени, которое оно возлагает на пациентов и поставщиков медицинских услуг, например, стоимости лечения, важности для экономики из-за потери рабочего времени, воздействия на семьи, лиц, осуществляющих уход, и друзей, а также рисков для будущего пациента. Больные могут бояться выходить из дома, опасаясь, что в общественном месте у них может случиться припадок и они могут получить травму. Это может привести к социальной изоляции.

Известно, что аскариды являются переносчиками бактерий, которые могут спровоцировать воспаление в инфицированных тканях. Когда черви умирают, начинается сильная воспалительная реакция, направленная на разрушение и удаление паразита. Этот эффект «умирающего червя» был предложен в качестве важного механизма, лежащего в основе возникновения эпилепсии. Поскольку мозг часто не может остановить это воспаление, известное как «стерильное воспаление», долгосрочное повреждение нервных клеток и последующее развитие судорог становятся более вероятными. Таким образом, воспаление и судорожная активность, вызванные аскаридозом, обусловлены реакцией мозга на возникновение провоспалительной среды из-за гибели паразита и последующего высвобождения молекул, связанных с патогеном. Хронические инфекции с большим количеством взрослых червей в кишечнике могут привести к значительному эозинофильному воспалению, вызывая тем самым иммунные реакции, такие как активация микроглии и астроцитов в головном мозге и выработка цитокинов и хемокинов. Также на фоне аскаридоза наблюдается активация лимфоцитов и продукция паразитарного антигенспецифического иммуноглобулина G и E.

У большинства больных кишечным аскаридозом заболевание протекает бессимптомно. У людей с симптомами нередко анорексия, тошнота, вздутие живота, дискомфорт в животе, периодические боли в животе и периодическая диарея.

**Цель исследования.** У больных эпилепсией наблюдался повышенный уровень антител к *Ascaris lumbricoides* и яиц гельминтов при копроовоскопии. Нашей целью являлось определить, существует ли какая-либо связь между этими агентами и эпилепсией в нашей группе больных.

**Материалы и методы исследования.** Всего в исследование включили 25 пациентов, из них 12 мальчиков и 13 девочек. Критерием включения в исследование являлись дети дошкольного возраста (до 5 лет), с жалобами на судороги, ЭЭГ ночной мониторинг и МРТ которых был без патологий и без каких-либо жалоб или предыдущих приступов в анамнезе ни у них самих, ни у членов их семей. Пациенты были обследованы с помощью МРТ, ЭЭГ,

копровоскопии и ИФА исследования в отделении детской неврологии многопрофильной клиники Ташкентской медицинской академии.

**Результаты и обсуждение.** Поскольку гельминтоз-ассоциированная эпилепсия обусловлена основным состоянием гельминтоза, диагностировали как симптоматическую эпилепсию. У пациентов приступы были как генерализованными, так и парциальными, и обычно резистентны к лечению и припадки, связанные с гельминтозом, были интенсивны.

У 96% исследуемых пациентов наблюдалась периферическая эозинофилия и являлась распространенной гематологической патологией у пациентов с аскарид-ассоциированной эпилепсией. Частота положительных результатов исследований кала на яйца *Ascaris lumbricoides* и антител к аскаридам среди пациентов с эпилепсией варьировала от одной серии к другой и, по-видимому, связана с тяжестью инфекции. ЭЭГ ночной мониторинг и МРТ головного мозга были без патологий.

<b>ЭЭГ</b>	Без изменений
<b>МРТ г/м</b>	Без изменений
<b>Копровоскопия</b>	1-4,999 EPG 5,000-49,999 EPG
<b>Антитела к аскаридам IgG</b>	+++ Более 1,05

Этим больным назначалась медикаментозная терапия, основанная на приеме антигельминтных препаратов-альбендазола (200мг в течение 6±1 дней). Чтобы эффект «умирающего червя» не усилил судороги ребенка-назначали противосудорожную терапию, и основным препаратом выбора был ламотриджин (2мг/кг/сутки) из-за широкого спектра действия. Эффективность проводимой терапии определяли по улучшению клинического состояния пациентов:

<b>Улучшение клиники</b>
<b>Исчезновение болей в животе</b>
<b>Исчезновение головных болей</b>
<b>Исчезновение тошноты и рвоты</b>
<b>Улучшение интеллектуальных способностей</b>
<b>В течение 6 месяцев отсутствие судорог</b>
<b>В течение 2 месяцев каждые 2 недели проводили исследование кала</b>

### **Выводы**

После курсов антигельминтной терапии у исследуемых детей наступало уменьшение эпилептических приступов, что представляет доказательства положительной связи между *Ascaris Lumbricoides* и эпилепсией. На этом основании настоятельно рекомендуется разработать стратегии здравоохранения, направленные на снижение воздействия видов *Ascaris Lumbricoides*. Необходимо провести дальнейшие исследования, чтобы более глубоко понять физиопатологические механизмы аскарид-ассоциированного эпилептогенеза.

Санитарное просвещение, личная гигиена, улучшение санитарных условий, правильная утилизация человеческих экскрементов и прекращение использования человеческих фекалий в качестве удобрений являются эффективными долгосрочными профилактическими мерами. В регионах, где распространен *A. lumbricoides*, следует рассмотреть возможность проведения целенаправленной дегельминтизации и массовой антигельминтной терапии.

Будущие успешные исследования могут привести к появлению новых методов лечения церебральных инфекций человека, вызванных паразитами. Такие достижения не только оптимизируют борьбу с эпилепсией в регионах, но и помогут справиться с связанными с ней экономическими и социальными последствиями.

## ASCARIDOSIS AND CONVULSIVE SYNDROME

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**Background.** Heartworm-associated epilepsy refers to seizures, which are repetitive changes in a person's behavior caused by abnormal electrical activity in the brain associated with neuroinflammation. This is a type of “symptomatic” epilepsy, referring to epilepsy caused by an underlying disease, rather than “idiopathic” epilepsy, the cause of which is unknown.

*Ascaris lumbricoides* is transmitted by ingestion of embryonated eggs from fecal-contaminated material. Predisposing factors include poverty, poor sanitation, inadequate wastewater disposal and poor personal hygiene. The highest prevalence is observed in children under 5 years of age.

**The purpose of our study** was to study posthelminthic epileptic seizures.

**Materials and research methods.** During the study, 15 patients who were treated in the children's neurological department of the multidisciplinary clinic of the Tashkent Medical Academy were tested, of which 7 were boys and 8 were girls. The criteria for inclusion in the study were children of preschool age (up to 5 years), with complaints of seizures, whose EEG overnight monitoring and MRI were without pathologies and without any complaints or a history of previous seizures either in themselves or in their family members. The patients were examined by MRI, EEG, coproscopy and ELISA blood tests.

**Research results.** Because helminthiasis-associated epilepsy is caused by an underlying condition of helminthiasis, it was diagnosed as symptomatic epilepsy. Patients' seizures were both generalized and partial, and seizures associated with helminthiasis were usually treatment-resistant.

Peripheral eosinophilia was observed in 96% of the studied patients and was a common hematological pathology in patients with ascaris-associated epilepsy. The incidence of positive stool tests for *Ascaris lumbricoides* eggs and roundworm antibodies among patients with epilepsy varied from one series to another and appears to be related to the severity of infection. EEG overnight monitoring and MRI of the brain were without pathologies.

**Conclusions** After courses of anthelmintic therapy, the study children experienced a decrease in epileptic seizures, which provides evidence of a positive association between *Ascaris Lumbricoides* and epilepsy. On this basis, it is strongly recommended that public health strategies be developed to reduce exposure to *Ascaris Lumbricoides* species. Further studies are needed to better understand the physiopathological mechanisms of roundworm-associated epileptogenesis.

## СОВРЕМЕННЫЕ ПОДХОДЫ И МЕТОДЫ ПРЕПОДАВАНИЯ ИНОСТРАННОГО ЯЗЫКА В ВЫСШЕМ УЧЕБНОМ ЗАВЕДЕНИИ

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**Аннотация.** В статье представлена информация о современных подходах и методах преподавания иностранного языка в высшем учебном заведении. В настоящее время существует немало методик для изучения иностранного языка в высших учебных заведениях. Каждый из методов имеет определенные особенности, некоторые обладают большей популярностью и востребованностью, некоторые меньшей. В этой статье будут рассмотрены основные методики для изучения студентами английского языка. Делается вывод о том, что современные подходы и методы в преподавании более доминирующее положение начинает занимать современные и инновационные технологии.

**Ключевые слова:** современные и инновационные технологии, потребность, современное общество, высшее учебное заведение, технические средства, эволюция, современные подходы и методы.

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**Abstract.** Abstract. The article provides information about modern approaches and methods of teaching a foreign language in a higher educational institution. Currently, there are many methods for learning a foreign language in higher education institutions. Each method has certain characteristics, some are more popular and in demand, some are less popular. This article will discuss the basic methods for students to learn English. It is concluded that modern approaches and methods in teaching are beginning to occupy a more dominant position with modern and innovative technologies.

**Key words:** modern and innovative technologies, need, modern society, higher education institution, technical means, evolution, modern approaches and methods.

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**Annotatsiya.** Maqolada oliy ta'lim muassasasida chet tilini o'qitishning zamonaviy yondashuvlari va usullari haqida ma'lumot berilgan. Hozirgi kunda oliy o'quv yurtlarida chet tilini o'rganishning ko'plab usullari mavjud. Har bir usul ma'lum xususiyatlarga ega, ba'zilari mashhurroq va talabga ega, ba'zilari esa kamroq mashhur.

Zamon shiddat bilan rivojlanib bormoqda. Har bir inson uchun xorijiy tillarni bilish juda muhimdir. Dunyo tobora globallashib bormoqda, yangi inovatsiya va texnologiyalar kirib kelmoqda.

**Kalit so'zlar:** zamonaviy va innovatsion texnologiyalar, ehtiyoj, zamonaviy jamiyat, oliy ta'lim muassasasi, texnik vositalar, evolyutsiya, zamonaviy yondashuv va usullar.

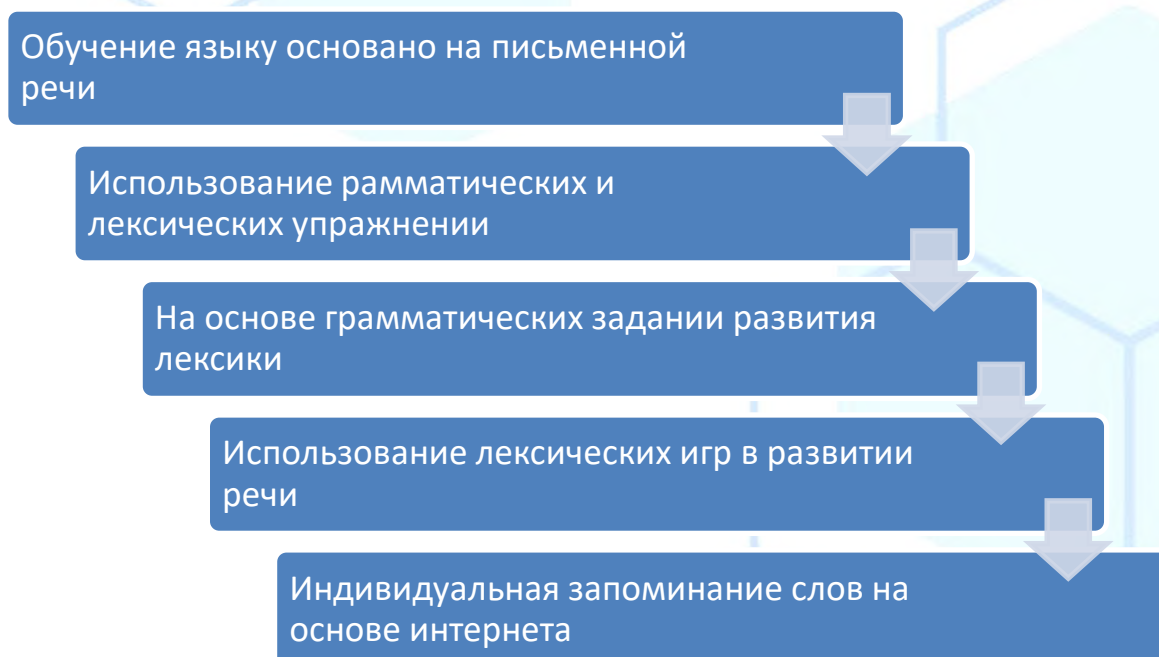
Необходимость совершенствования образования Республики Узбекистан, интенсивная интеграция в общеевропейское образовательное пространство, сохранение, развитие и усовершенствование традиций отечественного образования вносит существенные коррективы в систему высшего образования [2]. Современному обществу необходимы образованные, высококвалифицированные кадры, отличающиеся мобильностью, динамизмом, конструктивностью, культурной просвещенностью, уважающие традиции как свои, так и чужих стран и народов. В условиях информационного общества, знания и профессиональная компетентность приобретают первоочередное значение в жизни человека. Чтобы быть в курсе развития мировой науки, политики, экономики и культуры, необходимо изучение первоисточников на языке авторов, отсюда происходит повышение значимости иностранного языка в высшем учебном заведении, а его востребованность оказывает влияние на содержание, задачи и динамику обучения. В Узбекистане в этом плане проделана большая работа, и было бы целесообразно, если бы школьники и студенты воспользовались этой возможностью с умом. Цель изучения иностранного языка для нашей молодежи сегодня стоит выше, потому что наши студенты стремятся к этой цели. Молодые люди, которые стремятся учиться, могут потерять интерес, если у них нет цели. Человек должен двигаться вперед к своей цели. Поскольку его цель превосходит другие, он следует своему плану. Конечно, как можно учиться, не изучая иностранный язык.

Чтобы повысить уровень образования нашей молодежи, необходимо заинтересовать наших студентов к изучению иностранных языков, чтобы в будущем подготовить современные кадры в Узбекистане. В связи с этим в последние годы в университете все больше расширяется сфера использования современных и инновационных технологий, которые представляют собой не только современные технические средства, но и новые подходы к образовательному процессу [1]. В этом заключается основная цель обучения иностранным языкам: формирование и развитие коммуникативной культуры студентов, связанной с практическим владением ими иностранным языком. Задача преподавателя вуза – создать все условия для практического овладения языком каждым студентом. Сюда входит выбор методов обучения, позволяющих ему проявить свою активность и творческие способности. Это цель современных подходов и методов преподавания иностранного языка вузе, связанных с использованием различных информационных технологий и ресурсов Интернета.

Методика преподавания иностранного языка развивалась в гармонии с дидактикой. Всем нам, несомненно, известно, что теории преподавания всех учебных предметов основаны на дидактической науке и получают от нее научное

питание. Обучение иностранному языку также основано на дидактике. Дидактика – общая теория образования, методология – наука о преподавании конкретного предмета, лингводидактика – общая теория преподавания языка, лингвометодология – наука о преподавании конкретного языка. Применение методов в обучении иностранному языку существует уже давно, а принципы являются относительно новыми методологическими терминами. Исторически методы были объединены в четыре группы, а их названия назывались «переводными», «правильными», «сравнительными», «смешанными».

Грамматические упражнения выполняются с целью развития логического мышления, изучающего язык. Выражение грамматических знаний считается основной целью образования. Основные принципы этого метода заключаются в следующем:



Рассмотрим современные инновационные методы обучения иностранному языку, направленные на более эффективное развитие личности и адаптацию в высшем учебном заведении.

Одним из способов активизации и мотивации студентов в процессе обучения иностранным языкам является метод проектирования, когда учащийся самостоятельно планирует, создает, защищает свой проект, то есть активно включается в процесс коммуникативной деятельности. Учебный проект — это комплекс поисковых исследовательских, расчетных, графических и других видов работы, выполняемые учащимися самостоятельно целью практического или теоретического решения значимой проблемы. Основными целями проектной методики являются:

- ✓ самовыражение и самосовершенствование, повышение мотивации к обучению, формирование познавательного интереса;
- ✓ реализация на практике приобретенных умений и навыков, развитие речи, умение правильно и аргументировано преподнести исследуемый материал, вести дискуссионную полемику;

✓ продемонстрировать уровень культуры, образованности и социальной зрелости [3].

✓

## Проекты бывают различных видов:

ролевые игры,  
драматизация,  
инсценировки

исследовательские

творческие и  
мультимедийная  
презентация

Проектирование относится к активным методам обучения, основывающихся на том, что учащийся сталкивается с решением конкретных ситуативных задач, встречающихся в реальной жизни. Активное обучение является, безусловно, приоритетным на современном этапе преподавания иностранного языка. Ведь эффективное управление учебно-познавательной деятельностью возможно лишь тогда, когда оно опирается на активную мыслительную деятельность учащихся.

Естественный метод целью обучения является достижение среднего уровня владения иностранным языком. Педагог никогда не обращает внимание обучаемых на ошибки в речи, так как считает, что это может затормозить развитие речевых навыков [4].

Метод полной физической реакции - данный метод основан на двух основных предпосылках. Во-первых, навыки восприятия иностранной устной речи должны предшествовать развитию всех других навыков, как это происходит у маленьких детей. Во-вторых, занятие ограничивается понятием «здесь» и «сейчас» и легко объяснимыми примерами на изучаемом языке. Обучающегося не подталкивают к устной речи до того момента пока он не почувствует, что готов к ней. Метод не предназначен для обучения чтению и письму.

Многосторонний метод. Учебный материал представлен длинными диалогами с последующими упражнениями в вопросно-ответной форме. Однако, здесь роль преподавателя ограничивает возможность творческого использования изучаемого материала обучаемыми в ситуациях непосредственного общения друг с другом.

Перспективы использования Интернет-технологий на сегодняшний день достаточно широки. Это может быть: переписка с жителями англо-говорящих стран посредством электронной почты; участие в международных Интернет-конференциях, семинарах и других сетевых проектах подобного рода; создание и размещение в сети сайтов и презентаций - они могут создаваться совместно преподавателем и обучаемым. Кроме того, возможен обмен презентациями между преподавателями из разных стран.

Как показывает педагогический опыт, работа по созданию Интернет-ресурсов интересна учащимся своей новизной, актуальностью, креативностью.



Организация познавательной деятельности учеников в малых группах дает возможность проявлять свою активность каждому [3].

В целом можно выделить несколько общих положительных моментов в использовании Интернет-ресурсов в обучении:

- ✓ Обеспечить стабильную мотивацию к изучению английского языка
- ✓ Создать комфортную атмосферу в классе.
- ✓ Обеспечить высокую степень персонализированного обучения
- ✓ Увеличить объем выполняемой работы и увеличить объем знаний, навыков и умений, приобретаемых на занятиях.
- ✓ Улучшить качество контроля знаний учащихся
- ✓ Рационально планировать и организовывать учебный процесс, тем самым повышая эффективность урока
- ✓ Формировать коммуникативную компетентность студентов посредством аутентичных материалов.
- ✓ Обеспечить учащимся доступ к различным словарям, справочным системам, электронным библиотекам, репозиториям и другим информационным ресурсам [5].

В современной методике преподавания иностранных языков давно выявлены наиболее распространенные ресурсы, доказавшие свою эффективность в практике преподавания английского языка. Эти интернет-ресурсы содержат разнообразный языковой материал, в том числе текстовый, аудио- и визуальный материал по различным темам изучаемого языка. Поисковые системы Интернета позволяют преподавателю использовать на уроках аутентичные материалы, такие как аудио, видео и тексты, знакомиться с художественными произведениями авторов страны изучаемого языка, приобщиться к иностранной культуре, развивать свой кругозор и пополнять словарный запас. в своем активном словаре.

Существует несколько видов интернет-сервисов, которые можно использовать для самостоятельной работы учащихся:

1. *Hotlist* (список по теме) – это своего рода список сайтов с текстами по изучаемой теме. Если пользователь хочет его создать, то ему необходимо ввести ключевое слово в поисковую систему.

2. *Multimedia scrapbook* (мультимедийный черновик) – представляет собой систему мультимедийных ресурсов, где помимо ссылок на текстовые сайты имеется также большое количество мультимедийных материалов, включая таблицы, фотографии, аудиофайлы и видеоклипы, графическую информацию, анимированные виртуальные туры. Учителя могут легко скачать эти файлы и использовать как наглядный демонстрационный материал при изучении той или иной темы.

3. *Treasure Hunt* (Охота за сокровищами) – это веб-ресурс, на котором помимо ссылок на различные сайты можно найти вопросы по содержанию каждого сайта. С помощью этих вопросов учитель может контролировать познавательную деятельность учащихся. В конце поиска можно задать еще один общий вопрос для всестороннего понимания темы. На этот запрос будет получен

развернутый ответ, который будет включать ответы на более подробные вопросы по каждому из сайтов.

4. *Sample subject* (Тема-образец) – сайт, занимающий следующий уровень сложности по сравнению с предыдущим ресурсом. Также он содержит ссылки на текстовые и мультимедийные материалы глобальной сети Интернет. В рамках работы с данным ресурсом пользователю необходимо не только ознакомиться с материалом, но также высказать и аргументировать свое мнение по изучаемому вопросу.

5. *Web quest* (Интернет-проект) – это наиболее сложный вид образовательных Интернет-ресурсов. Данный ресурс включает сценарий организации проектной деятельности по выбранной учителем теме с использованием ресурсов сети Интернет [4].

Таким образом, обобщая информацию, полученную в ходе изучения данных сервисов, можно отметить, что, используя Интернет в образовательной деятельности, учителю необходимо четко понимать целесообразность его использования на определенном этапе обучения, все положительные и отрицательные стороны внедрения Интернет технологии.

Постоянное обновление существующих в Интернете сервисов и платформ и появление новых ресурсов общей и профессиональной направленности постоянно расширяют возможности использования современных и инновационных технологии в образовательных целях. Преподавателям иностранного языка необходимо следить за новинками Интернета, исследованиями и практической работой коллег в этой области, чтобы соответствовать современным требованиям, предъявляемым к научным и педагогическим работникам.

#### Использованная литература:

1. Гулямов Т.А. (2022). Современные методы преподавания иностранного языка в высших учебных заведениях. Достижения вузовской науки, (21), 177-182.
2. Zayniddin Sanaqulov, Vaxromjon Joraboyev CHET TIL O'QITISH METODIKASIDA ZAMONAVIY METODLAR // Academic research in educational sciences. 2021. №4. URL: <https://cyberleninka.ru/article/n/chet-til-oqitish-metodikasida-zamonaviy-metodlar> (дата обращения: 22.03.2024).
3. Musaeva, G. I. "Using multimedia projector in english language teaching classroom." European Journal of Molecular and Clinical Medicine 7.8 (2020): 907-912.
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5. Shirinova, F. A., & Musayeva, G. I. (2017). WHAT TEACHING STYLE IS THE BEST FOR STUDENT-CENTRIC CLASSROOM. In *Современные социально-экономические процессы: проблемы, закономерности, перспективы* (pp. 50-52).

## СОВРЕМЕННЫЕ ПОДХОДЫ И МЕТОДЫ ПРЕПОДАВАНИЯ ИНОСТРАННОГО ЯЗЫКА В ВЫСШЕМ УЧЕБНОМ ЗАВЕДЕНИИ

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**Аннотация.** В статье представлена информация о современных подходах и методах преподавания иностранного языка в высшем учебном заведении. В настоящее время существует немало методик для изучения иностранного языка в высших учебных заведениях. Каждый из методов имеет определенные особенности, некоторые обладают большей популярностью и востребованностью, некоторые меньшей. В этой статье будут рассмотрены основные методики для изучения студентами английского языка. Делается вывод о том, что современные подходы и методы в преподавании более доминирующее положение начинает занимать современные и инновационные технологии.

**Ключевые слова:** современные и инновационные технологии, потребность, современное общество, высшее учебное заведение, технические средства, эволюция, современные подходы и методы.

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**Abstract.** Abstract. The article provides information about modern approaches and methods of teaching a foreign language in a higher educational institution. Currently, there are many methods for learning a foreign language in higher education institutions. Each method has certain characteristics, some are more popular and in demand, some are less popular. This article will discuss the basic methods for students to learn English. It is concluded that modern approaches and methods in teaching are beginning to occupy a more dominant position with modern and innovative technologies.

**Key words:** modern and innovative technologies, need, modern society, higher education institution, technical means, evolution, modern approaches and methods.

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**Annotatsiya.** Maqolada oliy ta'lim muassasasida chet tilini o'qitishning zamonaviy yondashuvlari va usullari haqida ma'lumot berilgan. Hozirgi kunda oliy o'quv yurtlarida chet tilini o'rganishning ko'plab usullari mavjud. Har bir usul ma'lum xususiyatlarga ega, ba'zilari mashhurroq va talabga ega, ba'zilari esa kamroq mashhur.

Zamon shiddat bilan rivojlanib bormoqda. Har bir inson uchun xorijiy tillarni bilish juda muhimdir. Dunyo tobora globallashib bormoqda, yangi inovatsiya va texnologiyalar kirib kelmoqda.

**Kalit so'zlar:** zamonaviy va innovatsion texnologiyalar, ehtiyoj, zamonaviy jamiyat, oliy ta'lim muassasasi, texnik vositalar, evolyutsiya, zamonaviy yondashuv va usullar.

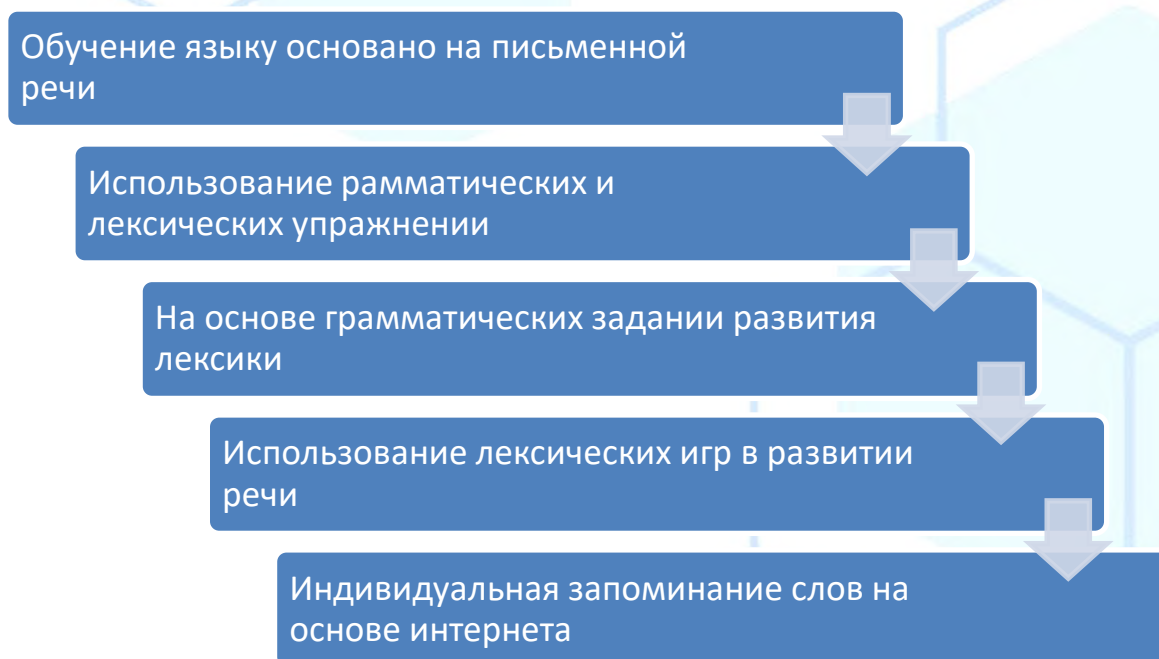
Необходимость совершенствования образования Республики Узбекистан, интенсивная интеграция в общеевропейское образовательное пространство, сохранение, развитие и усовершенствование традиций отечественного образования вносит существенные коррективы в систему высшего образования [2]. Современному обществу необходимы образованные, высококвалифицированные кадры, отличающиеся мобильностью, динамизмом, конструктивностью, культурной просвещенностью, уважающие традиции как свои, так и чужих стран и народов. В условиях информационного общества, знания и профессиональная компетентность приобретают первоочередное значение в жизни человека. Чтобы быть в курсе развития мировой науки, политики, экономики и культуры, необходимо изучение первоисточников на языке авторов, отсюда происходит повышение значимости иностранного языка в высшем учебном заведении, а его востребованность оказывает влияние на содержание, задачи и динамику обучения. В Узбекистане в этом плане проделана большая работа, и было бы целесообразно, если бы школьники и студенты воспользовались этой возможностью с умом. Цель изучения иностранного языка для нашей молодежи сегодня стоит выше, потому что наши студенты стремятся к этой цели. Молодые люди, которые стремятся учиться, могут потерять интерес, если у них нет цели. Человек должен двигаться вперед к своей цели. Поскольку его цель превосходит другие, он следует своему плану. Конечно, как можно учиться, не изучая иностранный язык.

Чтобы повысить уровень образования нашей молодежи, необходимо заинтересовать наших студентов к изучению иностранных языков, чтобы в будущем подготовить современные кадры в Узбекистане. В связи с этим в последние годы в университете все больше расширяется сфера использования современных и инновационных технологий, которые представляют собой не только современные технические средства, но и новые подходы к образовательному процессу [1]. В этом заключается основная цель обучения иностранным языкам: формирование и развитие коммуникативной культуры студентов, связанной с практическим владением ими иностранным языком. Задача преподавателя вуза – создать все условия для практического овладения языком каждым студентом. Сюда входит выбор методов обучения, позволяющих ему проявить свою активность и творческие способности. Это цель современных подходов и методов преподавания иностранного языка вузе, связанных с использованием различных информационных технологий и ресурсов Интернета.

Методика преподавания иностранного языка развивалась в гармонии с дидактикой. Всем нам, несомненно, известно, что теории преподавания всех учебных предметов основаны на дидактической науке и получают от нее научное

питание. Обучение иностранному языку также основано на дидактике. Дидактика – общая теория образования, методология – наука о преподавании конкретного предмета, лингводидактика – общая теория преподавания языка, лингвометодология – наука о преподавании конкретного языка. Применение методов в обучении иностранному языку существует уже давно, а принципы являются относительно новыми методологическими терминами. Исторически методы были объединены в четыре группы, а их названия назывались «переводными», «правильными», «сравнительными», «смешанными».

Грамматические упражнения выполняются с целью развития логического мышления, изучающего язык. Выражение грамматических знаний считается основной целью образования. Основные принципы этого метода заключаются в следующем:



Рассмотрим современные инновационные методы обучения иностранному языку, направленные на более эффективное развитие личности и адаптацию в высшем учебном заведении.

Одним из способов активизации и мотивации студентов в процессе обучения иностранным языкам является метод проектирования, когда учащийся самостоятельно планирует, создает, защищает свой проект, то есть активно включается в процесс коммуникативной деятельности. Учебный проект — это комплекс поисковых исследовательских, расчетных, графических и других видов работы, выполняемые учащимися самостоятельно целью практического или теоретического решения значимой проблемы. Основными целями проектной методики являются:

- ✓ самовыражение и самосовершенствование, повышение мотивации к обучению, формирование познавательного интереса;
- ✓ реализация на практике приобретенных умений и навыков, развитие речи, умение правильно и аргументировано преподнести исследуемый материал, вести дискуссионную полемику;

✓ продемонстрировать уровень культуры, образованности и социальной зрелости [3].

✓

## Проекты бывают различных видов:

ролевые игры,  
драматизация,  
инсценировки

исследовательские

творческие и  
мультимедийная  
презентация

Проектирование относится к активным методам обучения, основывающихся на том, что учащийся сталкивается с решением конкретных ситуативных задач, встречающихся в реальной жизни. Активное обучение является, безусловно, приоритетным на современном этапе преподавания иностранного языка. Ведь эффективное управление учебно-познавательной деятельностью возможно лишь тогда, когда оно опирается на активную мыслительную деятельность учащихся.

Естественный метод целью обучения является достижение среднего уровня владения иностранным языком. Педагог никогда не обращает внимание обучаемых на ошибки в речи, так как считает, что это может затормозить развитие речевых навыков [4].

Метод полной физической реакции - данный метод основан на двух основных предпосылках. Во-первых, навыки восприятия иностранной устной речи должны предшествовать развитию всех других навыков, как это происходит у маленьких детей. Во-вторых, занятие ограничивается понятием «здесь» и «сейчас» и легко объяснимыми примерами на изучаемом языке. Обучающегося не подталкивают к устной речи до того момента пока он не почувствует, что готов к ней. Метод не предназначен для обучения чтению и письму.

Многосторонний метод. Учебный материал представлен длинными диалогами с последующими упражнениями в вопросно-ответной форме. Однако, здесь роль преподавателя ограничивает возможность творческого использования изучаемого материала обучаемыми в ситуациях непосредственного общения друг с другом.

Перспективы использования Интернет-технологий на сегодняшний день достаточно широки. Это может быть: переписка с жителями англо-говорящих стран посредством электронной почты; участие в международных Интернет-конференциях, семинарах и других сетевых проектах подобного рода; создание и размещение в сети сайтов и презентаций - они могут создаваться совместно преподавателем и обучаемым. Кроме того, возможен обмен презентациями между преподавателями из разных стран.

Как показывает педагогический опыт, работа по созданию Интернет-ресурсов интересна учащимся своей новизной, актуальностью, креативностью.

Организация познавательной деятельности учеников в малых группах дает возможность проявлять свою активность каждому [3].

В целом можно выделить несколько общих положительных моментов в использовании Интернет-ресурсов в обучении:

- ✓ Обеспечить стабильную мотивацию к изучению английского языка
- ✓ Создать комфортную атмосферу в классе.
- ✓ Обеспечить высокую степень персонализированного обучения
- ✓ Увеличить объем выполняемой работы и увеличить объем знаний, навыков и умений, приобретаемых на занятиях.
- ✓ Улучшить качество контроля знаний учащихся
- ✓ Рационально планировать и организовывать учебный процесс, тем самым повышая эффективность урока
- ✓ Формировать коммуникативную компетентность студентов посредством аутентичных материалов.
- ✓ Обеспечить учащимся доступ к различным словарям, справочным системам, электронным библиотекам, репозиториям и другим информационным ресурсам [5].

В современной методике преподавания иностранных языков давно выявлены наиболее распространенные ресурсы, доказавшие свою эффективность в практике преподавания английского языка. Эти интернет-ресурсы содержат разнообразный языковой материал, в том числе текстовый, аудио- и визуальный материал по различным темам изучаемого языка. Поисковые системы Интернета позволяют преподавателю использовать на уроках аутентичные материалы, такие как аудио, видео и тексты, знакомиться с художественными произведениями авторов страны изучаемого языка, приобщиться к иностранной культуре, развивать свой кругозор и пополнять словарный запас. в своем активном словаре.

Существует несколько видов интернет-сервисов, которые можно использовать для самостоятельной работы учащихся:

1. *Hotlist* (список по теме) – это своего рода список сайтов с текстами по изучаемой теме. Если пользователь хочет его создать, то ему необходимо ввести ключевое слово в поисковую систему.

2. *Multimedia scrapbook* (мультимедийный черновик) – представляет собой систему мультимедийных ресурсов, где помимо ссылок на текстовые сайты имеется также большое количество мультимедийных материалов, включая таблицы, фотографии, аудиофайлы и видеоклипы, графическую информацию, анимированные виртуальные туры. Учителя могут легко скачать эти файлы и использовать как наглядный демонстрационный материал при изучении той или иной темы.

3. *Treasure Hunt* (Охота за сокровищами) – это веб-ресурс, на котором помимо ссылок на различные сайты можно найти вопросы по содержанию каждого сайта. С помощью этих вопросов учитель может контролировать познавательную деятельность учащихся. В конце поиска можно задать еще один общий вопрос для всестороннего понимания темы. На этот запрос будет получен

развернутый ответ, который будет включать ответы на более подробные вопросы по каждому из сайтов.

4. *Sample subject* (Тема-образец) – сайт, занимающий следующий уровень сложности по сравнению с предыдущим ресурсом. Также он содержит ссылки на текстовые и мультимедийные материалы глобальной сети Интернет. В рамках работы с данным ресурсом пользователю необходимо не только ознакомиться с материалом, но также высказать и аргументировать свое мнение по изучаемому вопросу.

5. *Web quest* (Интернет-проект) – это наиболее сложный вид образовательных Интернет-ресурсов. Данный ресурс включает сценарий организации проектной деятельности по выбранной учителем теме с использованием ресурсов сети Интернет [4].

Таким образом, обобщая информацию, полученную в ходе изучения данных сервисов, можно отметить, что, используя Интернет в образовательной деятельности, учителю необходимо четко понимать целесообразность его использования на определенном этапе обучения, все положительные и отрицательные стороны внедрения Интернет технологии.

Постоянное обновление существующих в Интернете сервисов и платформ и появление новых ресурсов общей и профессиональной направленности постоянно расширяют возможности использования современных и инновационных технологии в образовательных целях. Преподавателям иностранного языка необходимо следить за новинками Интернета, исследованиями и практической работой коллег в этой области, чтобы соответствовать современным требованиям, предъявляемым к научным и педагогическим работникам.

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2. Zayniddin Sanaqulov, Vaxromjon Joraboyev CHET TIL O'QITISH METODIKASIDA ZAMONAVIY METODLAR // Academic research in educational sciences. 2021. №4. URL: <https://cyberleninka.ru/article/n/chet-til-oqitish-metodikasida-zamonaviy-metodlar> (дата обращения: 22.03.2024).
3. Musaeva, G. I. "Using multimedia projector in english language teaching classroom." *European Journal of Molecular and Clinical Medicine* 7.8 (2020): 907-912.
4. Nematova D., Akhmedova M. MODERN GADGETS AND THE INTERNET IN THE LIVES OF YOUNG PEOPLE //Центральноазиатский журнал междисциплинарных исследований и исследований в области управления. – 2024. – Т. 1. – №. 2. – С. 175-180.
5. Shirinova, F. A., & Musayeva, G. I. (2017). WHAT TEACHING STYLE IS THE BEST FOR STUDENT-CENTRIC CLASSROOM. In *Современные социально-экономические процессы: проблемы, закономерности, перспективы* (pp. 50-52).



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**ПАРРАНДАЧИЛИКФЕРМАЛАРИҲУДУДИДАТУПРОҚНИНГВА  
ЕР ОСТИ СУВЛАРИНИНГИФЛОСЛАНИШИ****Ортиқов Азим Ахрорович***Бухоро давлат тиббиёт институти: Ўзбекистон**Email: azim55968gmail.com*

**Резюме:** Паррандачилик хўжаликларида техник тадбир сифатида сув таъминоти, канализация, хоналарни тозалаш, зарарсизлантириш, ахлатлардан тозалаш ва йўқ қилиш, инкубатория қолдиқларидан тозалаш, сўйиш цехи қолдиқларини йиғиш тадбирларини амалга оширишни тақозо қилади. Паррандалар парваришлаш цехларини тозалигини сақлаш, ҳаво алмаштириш тизимини сифатли ишлашини таъминлаш, паррандалар тўшакларини вақтида алмаштириш, ишчи ўринлари ҳавосида чанглар, турли газлар, микроблар миқдорини камайтиришни таъминлайди. Паррандачилик фабрикалари ва фермаларини қуриш ёки реконструкция қилишда қурилиш материалларини хавфсиз бўлиши, асосий ва ёрдамчи биноларни тўғри жойлаштириш, хоналарни тозалаш ва зарарсизлантириш қилишга тўлиқ шароит яратилганлигига эътибор бериш лозим

**Калит сўзлар:** технология, ижтимоий, иқтисодий, экологик.**ЗАГРЯЗНЕНИЕ ПОЧВЫ И ПОДЗЕМНЫХ ВОД НА  
ТЕРРИТОРИИ ПТИЦЕФАБРИК****Артиков Азим Ахрорович***Бухарский государственный медицинский институт: Узбекистан**Email: azim55968gmail.com*

**Резюме:** В качестве технического мероприятия на птицефабриках необходимо провести водоснабжение, канализацию, уборку помещений, обеззараживание, очистку и утилизацию от мусора, очистку от остатков инкубатора, сбор остатков убойного цеха. Уход за птицей предусматривает поддержание чистоты цех, обеспечение качественной работы системы воздухообмена, своевременную замену подстилок для птицы, снижение количества пыли, различных газов, микробов в воздухе рабочих подстилок. При строительстве или реконструкции птицефабрик и ферм необходимо обращать внимание на то, чтобы строительные материалы были безопасными, создавались все условия для правильного размещения основных и вспомогательных помещений, уборки и обеззараживания помещений

**Ключевые слова:** технология, социальная, экономическая, экологическая.

## CONTAMINATION OF SOIL AND GROUNDWATER IN THE TERRITORY OF POULTRY FARMS

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**Summary:** As a technical event in poultry farms, it is necessary to carry out water supply, sewerage, cleaning rooms, decontamination, cleaning and disposal from garbage, cleaning from the remains of an incubator, collecting the remains of slaughter tsexi. Poultry Care provides for maintaining the cleanliness of tsexs, ensuring the quality operation of the air exchange system, timely replacement of poultry beds, reducing the amount of dust, various gases, microbes in the air of the working beds. When building or reconstructing poultry factories and farms, it is necessary to pay attention to the fact that the building materials are safe, full conditions are created for the correct placement of the main and auxiliary premises, cleaning and decontamination of rooms

**Key words:** technology, social, economic, environmental.

**Долзарблиги:** Ўзбекистон Республикаси соғлиқни сақлаш тизими олдига атмосфера ҳавосини, тупрқ, сувни ва оқава сувларни химоялаш эвазига аҳолини ва аҳоли яшайдиган ҳудудларни муҳофаза қилиш ва мустаҳкамлаш бирламчи вазифа қилиб қўйилган. Тупроқ-бу ер қобиғининг юқори юпқа унумдор қатлами, тупроқ ер юзидаги барча ҳаётнинг манбаи (ўнлаб сантиметрдан 2-4 баъзан кўпроқ метргача), унинг ҳаво, сув таъсирида ўзгариши натижасида ҳосил бўлган организмлар ва табиий унумдорликка эга. Тупроқ суяқ (тупроқ намлиги), қаттиқ (минераль), газсимон (тупроқ ҳавоси) органик қисмлар, ҳайвонлар, ўсимликлар ва микроорганизмлардан иборат.

Тупроқерда ҳаёткечиришимкони ятани белгилайдигани китаасосий функцияни бажаради: органик моддалар, шу жумладан экинларни ишлаб чиқариш ва ўлик органик қолдиқларни минераллаштириш. Жамият ривожланишининг замонавий даврида у саноат ва маиший чиқиндиларни ўзлаштирадиган ва зарарсизлантирадиган биологик филтрга айланди.

Академик В. И. Вернадский тупроқни "тирик модда" деб атаган. Тупроқда биологик қисм мавжуд, яъни табиий шароитда тупроқларнинг унумдорлиги ватузилишини ҳаётини фаолият и биланоширадиган турли микроорганизмлар ҳисобланади.

Аммоинсонўзининг ҳаётини фаолияти билан тупроқ хусусиятлари га ижобий таъсирни кўрсатиши мумкин.

Ҳозирги вақтда тупроқ тобора кўпроқ техногенифлосланишга эга - бунда нефт, пестицидлар, оғир металллар, оқавасувлар, ёғингарчилик, тоғ - кон, ҳаво оқимлари ва бошқалар оқалифлосланади.

Тупроқларга антропоген салбий таъсирлар йил сайин ортиб бормоқда, айниқса қишлоқ хўжалиги ерлари, бу сўнгги ўн йилликларда тупроқ унумдорлигининг кескин пасайиши ва пасайишига, ботқоқланиш, шўрланиш, ифлосланиш, эрозия жараёнлари билан йўқ қилинишига олиб келди. Қушларнинг паст дозаларини тупроқ унумдорлигига (озуқа моддалари, кислоталикнинг пасайиши, гумус таркибининг кўпайиши) ижобий таъсири билан бир қаторда оғир металлларнинг ҳаракатчанлиги ва тупроқнинг фосфорланиши каби салбий жараёнлар ҳам мавжудлиги аниқланди.

Паррандачилик фермалари худудида тупроқнинг ифлосланиши бу ер қобиғининг юқори юпқа унумдор қатлами, тупроқ ер юзидаги барча ҳаётнинг манбаи (ўнлаб сантиметрдан 2-4 баъзан кўпроқ метргача), унинг ҳаво, сув таъсирида ўзгариши натижасида ҳосил бўлган организмлар ва табиий унумдорликка эга. Тупроқ суюқ (тупроқ намлиги), қаттиқ (минерал), газсимон (тупроқ ҳавоси) органик қисмлар, ҳайвонлар, ўсимликлар ва микроорганизмлардан иборат. Тупроқ ерда ҳаёт кечириш имкониятини белгилайдиган иккита асосий функцияни бажаради: органик моддалар, шу жумладан экинларни ишлаб чиқариш ва ўлик органик қолдиқларни минераллаштириш. Жамият ривожланишининг замонавий даврида у саноат ва маиший чиқиндиларни ўзлаштирадиган ва зарарсизлантирадиган (йўқ қиладиган) биологик филтрга айланди. Академик В. И. Вернадский тупроқни "тирик модда" деб атаган. Тупроқда биологик қисм мавжуд, яъни турли микроорганизмлар учун яшаш муҳити ҳисобланади.

Тупроққа қушлар чиқиндиларини кўп миқдорда қўлланиши атмосфера ҳавосининг сезиларли даражада ифлосланишига олиб келади. Тупроқда парчаланганда махсус тайёрланган қуш ахлати метан, карбонат ангидрид ва углероксидланган азот бирикмаларини чиқаради. Товуқ гўнгининг тупроққа киритилиши тупроқдан газлар чиқишини оширади. Карбонат ангидрид чиқиндилари қумли тупроқларда 58% га ва енгил қумлоқ тупроқларда 40% га ошди.

Ишлаб чиқариш жараёнида паррандачилик фермаси фаолияти давомида қуйидаги чиқиндилар ҳосил бўлади: паррандачилик чиқиндилари (гўнг) 8176,2 тонна 30% намлик миқдорида, улар ёпиқ ахлат омборида йиғилади ва ҳайдаладиган ерлар тупроғига киритилган органик ўғит сифатида ишлатилади. Бугунгикундадалаларга экспорт

қилишнинггушбуусулибиланучтамуаммомавжуд. Биринчидан, каттамикдордагиоқавасувларниташинш (куруқмоддалармикдори 2-6%) каттамаблагталабқилади. Иккинчидан, ер ости сувларива ер устисувлари, тупроқинвазив, юқумливатоксикэлементларбиланкасалланганбўлиб, улар турликасалликларникелтирибчиқарадиваасосанбевоситааҳолигатаъсирқилади. Учинчидан, бу дон, ўтвасувманбаларидамис, нитратларвасинкнингтўпланишигаолибкелади.

Қишлоқ хўжалиги экинларининг қишлоқ хўжалиги техникаси учун ишлатилиши мумкин бўлган чиқиндиларни сақлаш учун ҳайдаладиган ерлар ажратилди. Омборхона ҳам атроф-муҳитнинг ифлосланиш манбаи ҳисобланади. Хомилалик ҳид узоқ масофаларга тарқалади, чунки қушларнинг парчаланиши пайтида аммиак ва водород сулфиди ажралиб чиқади. Бу одамлар, ҳайвонлар ва ўсимликларга салбий таъсир қилади. Ёзда, иссиқ кунларда, қушларнинг ахлатидан намлик буғланади, уларнинг тешиқларида патогенлар бўлиши мумкин.

Маълумотларга кўра, товук гўнгини тупроққа киритиш уларнинг хусусиятларини, режимларини ва жараёнларини ўзгартиради. Сув-физик, агрокимёвий, физик-кимёвий, биологик хусусиятлар ва физик-механик хусусиятларнинг ўзгариши билан бир қаторда тупроқларнинг турли хил сорбсия, ҳаракатчанлик ва токсикантларга сорбсия хусусиятлари ва биофил элементларнинг мувозанати сезиларли даражада ўзгармоқда.

10 тонна товук гўнги таркибида кўпроқ азотли ва калийли ўғитлар мавжуд бўлиб, минерал ўғитларга нисбатан ҳосилдорлик ошади: маккажўхори 0,6 с/га, арпа (2-йил) 2,2 с/га ва арпа (3-йил) 0,2 с/га. Шунинг учун, минерал ўғитларга қараганда қушларнинг ахлатини қўллаш самаралироқ деган хулосага келиш мумкин, чунки нафақат ҳосилдорликни оширади, балки тупроқ унумдорлиги ва тузилишини яхшилайдди.

Шуни ёдда тутиш керакки, органик ўғит сифатида товук гўнги олдиндан чиритилган ҳолда тайёрланиши керак. Кейин тупроққа тўғри усул бўйича ва маълум дозаларда қўлланиши муҳим аҳамият касб этади.

Ичимлик суви "Ердаги енг муҳим минерал, уларсиз ҳаёт бўлмайди" Инсон ҳаёти давомида 74 тоннагача сув ичади ва дунё аҳолисининг бир авлоди барча дарёларнинг йиллик оқимининг ярмини истеъмол қилади. Жаҳон Соғлиқни сақлаш ташкилоти (ЖССТ) маълумотларига кўра, касалликларнинг 80% дан ортиғи сув билан боғлиқ.

Бундан ташқари, сув фотосинтезнинг ажралмас агенти эканлигини қўшимча қилиш муҳимдир. У юқори диелектрик доимийлигига эга, бунинг натижасида у деярли барча моддаларни бириктиради ва сақлайди, шунинг учун сув ажойиб

совутиш суви ва совутгичдир. У юкорисирттаранглигикабиноёбсифатгаэга, бунингнатижасида у тупрокдагикапиллярлароркаликўтарилаолади.

Чиқинди сувларга ташланадиган хажмга кўра саноат тармоқлари ифлослантирувчи моддалар бўйича: хлоридлар, аммоний азот, умумий азот, сульфатлар, умумий фосфор, нитратлар, фенол, нефт маҳсулотлари, осон оксидланадиган органик моддалар, рух, темир бирикмалари, синтетик сирт фаол моддалар, мис, ўзига хос органик моддалар (лигносулфонатлар, метил меркаптан, анилин, хлорорганик пестицидлар).

Экология бошқарманинг атроф-муҳитни муҳофаза қилиш бўлими ва табиий ресурслар бўйича мутахассислари "паррандачилик фермалари"худудларида ўтказилган текширув давомида экологик қонунчиликнинг кўплаб бузилиши аниқланди.

Экологлар паррандачилик фермалари қишлоқ хўжалиги фаолиятини атроф-муҳитга ифлослантирувчи зарарли моддаларни чиқариш ва чиқариш учун рухсатномасиз амалга оширишини, тегишли ҳужжатларга эга бўлмасдан, ер ости манбаларидан сув олишларини аниқладилар. Паррандачилик фермалари чиқинди сув ва дарёларни ифлослантиради, улар ичига тозаланмаган чиқиндилар доимий равишда чиқарилади.

Ўтказилган таҳлилий назоратга кўра, дарёга ифлослантирувчи моддаларнинг оқиши аниқланди, улар жуда хавфли ва рухсат этилган меъёрдан юқори концентрацияларда эканлиги аниқланган. Шундай қилиб, паррандачилик фермаларининг оқава сувларида марганец, рух, фосфатлар, фенол ва сульфидлар аниқланди, уларни чиқариш қатъиян ман этилади.

Паррандачилик фермалари ҳам чучук сувнинг ифлосланиш манбалари ҳисобланади. Чиқиндиларда, яъни қушларнинг ахлатида кўп миқдорда азот ўз ичига олган бирикмалар мавжуд бўлиб, улар асосан суяқ ахлатга тушади. Шунинг учун ахлатни йўқ қилишнинг янги усуллари излаш керак, яъни.самаралироқ, бу саноат паррандачилигининг асосий муаммоси бўлиб, уни яқин келажакда ҳал қилиш керак.

Паррандачилик фермаси худудида доимий равишда турли хил микроорганизмлар ҳавода бўлади: қушлар ва одамларнинг турли юқумли касалликларини келтириб чиқарадиган бактериялар, моғор, вируслар, замбуруғлар, чанг, споралардир. Шунингдек, худуддаҳар доим ёқимсизҳидлиҳавомавжуд.

Атмосфера ҳавосини тозалашнинг энг самарали чоралари паррандачилик фабрикалари ва фермаларида чиқиндисиз технология ижобий натижа беради деб тан олиними керак. Қурилма ва бажарилган жараёнларга кўра, барча тозалаш фермаларни чанг йиғувчилар, конденсация ва ултратовуш қурилмалари, механик ва электр филтрлари қурилмалари бўлиш мумкин.

Бугунги кунга келиб, паррандачилик фермасидаги парранда гўнги энг долзарб экологик муаммо бўлиб, фабрикаларни деярли чиқиндисиз қилиш учун энг қатъий экологик стандартларга жавоб берадиган Равис каби замонавий технологиялар билан жиҳозлаш зарур. Бу заводни камроқ энергия талаб қиладиган, экологик тоза қилади, бу эса қушларнинг ахлатини тўлиқ йўқ қилишга имкон беради. Шунингдек, ушбу ускуна қуйидагилар билан жиҳозланган: ичиш, овқатлантириш, иқлим назорати тизими, ҳамма нарса тўлиқ автоматлаштирилган.

Паррандачилик фермасида атмосфера ҳавосининг ифлосланиш манбаларини таҳлил қилиб, асосий ифлослантирувчи моддалар: қушларнинг ахлати, машиналар ва транспорт воситалари, шамоллатиш тизимлари, ҳар хил турдаги чиқиндилар. Қушларнинг ахлатининг фоиз нисбати таркибида асосан сув 54,6 устунлик қилади; азотли ва фосфор-калий бирикмалари билан тўйинган. Ушбу композиция атмосфера ҳавосига таъсир қилади, ёқимсиз ва доимий ҳид ҳосил қилади. Паррандачилик иншоотларини шамоллатиш пайтида атмосферага турли хил ифлослантирувчи қаттиқ моддалар ва кимёвий моддалар чиқарилади. Паррандачилик фермасига хизмат кўрсатиш учун ҳар хил турдаги машиналар ва автомобил транспорти қўлланилади, улар ҳам ҳавони ифлослантирувчи манбалардир.

Паррандачилик фермасининг ишлаб чиқариш фаолияти давомида атроф-муҳит таркибий қисмларига таъсир даражасини ўрганиб чиқиб, ишлаб чиқариш фаолияти давомида зарарли даражага қараб чиқариладиган моддалар қуйидаги тартибда тақсимланиши мумкин деган хулосага келиш мумкин: формалдегид, водород сулфиди, азот диоксиди, қора углерод, тўхтатилган қаттиқ моддалар, олтингугурт диоксиди, углерод оксиди, бутан, углеводородлар, аммиак. Атмосферага чиқариладиган энг хавfli бирикмалар формалдегид, водород сулфиди ва азот диоксидидир. Ушбу моддалар атмосфера ҳавоси билан бирлашганда турли хил таъсирларни ҳосил қилади.

Атмосфера ҳавосига ифлослантирувчи моддаларни чиқариш манбаларини аниқлаш билан паррандачилик фермалари учун технологик циклнинг асосий манбалари қуйидагилардир: маъмурий-иқтисодий зона; қозонхона трубкаси (3 дона.); дезинфекция бўлинмасидан шамоллатиш; сўйиш ва санитария пунктининг қозонхона трубкаси; сўйиш ва санитария пунктининг шамоллатиш трубкаси; ветеринария лабораториясининг қозонхона трубкаси; саноат подаси зонаси; қозонхона трубкаси (ҳар бир паррандачилик уйида); дезинфекция жойидан шамоллатиш трубкаси; шамоллатиш ишлаб чиқариш хонаси; ахлатни сақлаш; тухум қўядиган қозонхона қувурлари ; таъмирлаш зонаси ёш саноат подаси; қозонхона трубкаси; ишлаб чиқариш хонасидан шамоллатиш; инкубация

майдони; қозонхона трубкеси; ишлаб чиқариш хонасидан шамоллатиш; ахлатни сақлаш жойи ва бошқалар ҳисобланади.

**Хулоса:** Паррандачилик фермаларида атроф-муҳитни муҳофаза қилиш учун қуйидаги чора-тадбирларни амалга ошириш керак:

- чиқиндиларни сақлаш ва йўқ қилиш:

1-хавфли синф чиқиндилари махсус муҳрланган идишларга (контейнерлар, қутилар) жойлаштириш;

2-хавфли синф чиқиндилари ёпиқ идишларга (кутилар, полиетилен пакетлар, сумкалар ёки бочкалар) жойлаштириш;

3-хавфли синф чиқиндилари қоғоз ёки пахта мато қопларига жойлаштириш;

4-синфдан қурилиш қолдиқлари ва бошқа токсик бўлмаган чиқиндилар очиқ ҳолда сақланиши мумкин:

- паррандачилик фермасининг бутун ҳудуди бўйлаб ва унга қўшни ҳудудда ёғочли (қарағай) ва бута экинлари экилиши;

- автотранспорт воситалари учун махсус тўхташ жойлари ташкил қилиниши.

### **Фойдаланилган адабиётлар рўйхати:**

1. Ortikov A.A. Some hygiene issues according to the conditions of the workers of poultry farms // Asademicia an International Multidisciplinary Research Journal.Vol.11, Issue 3, -2021. –с 1274- 1279

2. Ortikov A.A. environmental and hygienic condition and estimation of the working conditions of workers of poultry farming economy// central asian journal of medical and natural sciences.- 2021.issn (o):2581-6934 -С 229-234.

3. Ortikov A.A. some hygienic issues on the working conditions of poultry farm workers.// bulletin of the doctor 99 (2),- PP.74-79

4. Ortikov A.A. Peculiarities of Agricultural Workers// central asian journal of medical and natural sciences.// Special issue in Covid-19-2021. –С 266-269.

5. Ortikov A.A. poultry farm as a source of environmental pollution// asademicia An International Multidisciplinary Research //Journal.Vol.11,Issue 11, -2021. С-554-558.

6. Ортиқов А. А. ПАРРАНДАЧИЛИК ФАБРИКАЛАРИДА ШОВҚИН, ТЕБРАНИШЛАР ВА ЁРИТИЛГАНЛИКНИ ИШЧИ ЎРИНЛАРИДА БАҲОЛАШ //ТАДҚИҚОТЛАР. – 2024. – Т. 30. – №. 2. – С. 131-143.

7. Ортиқов А. А. ПАРРАНДАЧИЛИК ФАБРИКАЛАРИДА ПРОФИЛАКТИК ТАДБИРЛАР ТАШКИЛ ЭТИШ ВА АМАЛГА ОШИРИШ ЖИҲАТЛАРИ //ТАДҚИҚОТЛАР. – 2024. – Т. 30. – №. 2. – С. 144-150.

8. Ортиқов А.А. Некоторые вопросы гигиены в зависимости от условий труда работников птицефабрики // Asademicia - Международное междисциплинарное исследование Журнал. Том 11, выпуск 3, -2021. –с 1274-1279

9.Ортиков А.А. Птицефабрика как источник загрязнения окружающей среды // Академия наукМеждународные междисциплинарные исследования //Журнал.Том 11, Выпуск 11, -2021. С-554-

10.Ортиков А.А. Оценка экологического и гигиенического состояния рабочей средыусловия труда работников птицеводческого хозяйства // центральноазиатский медицинский журналин естественные науки.- 2021.issn (o): 2581-6934 -С 229-234.

11. Zhumaeva Aziza Askarovna.Hygienic assessment of the movement of the insecticide seller in the soil layer// 50-55

12.SX Samandarovna.,Mehnat Sharoitining Inson Organizmiga Ta'siri Sog'Lom Turmush Tarzi//AMALIY VA TIBBIYOT FANLARI ILMIIY JURNALI, ISSN:2181-3464 С34-37

13.SK Samandarovna.,The Problem of Environmental Pollution//Vital Annex:International Journal of Novel Research in Advanced Sciences, Volume:01 Issue: 03 I 2022 ISSN: 2751-756X Page81-85

14.SamadovaKhatichabegimSamandarovna The Problem of Environmental Pollution // Vital Annex: International Journal of Novel Research in Advanced Sciences // –2022. – P. 81-85.

15.XC Самадова.,СОҒЛОМ ТУРМУШ ТАРЗИ ИНСОН САЛОМАТЛИГИНИНГ АСОСИДИР//Journal of Advanced Research and Stability,Volume:02 Issue:09ISep-2022 ISSN:2181-2608 С198-201

16. Central Asian Journal of Medical and Natural Science 2 (1), - 2021. 46-56

17. А.А. Zhumaeva. Hygienic aspects of labor safety in industrial carpet weaving production// 2023. 64-69

18. А.А. Жумаева.Гигиеническая оценка условий труда в ковроткацком производстве, разработка профилактических мероприятий//Amaliyvatibbiyotfanlariilmijurnali 2 (2), - 2023. 231-234.

19. А.А.Jumaeva,N.J.Ermatov,G.F. Sherkuziyeva. Hygienic assessmengienic assessment of the mo t of the movement of seller t of seller insecticide in the soil layer//Central Asian Journal of Medicine.-2021/9 № 2, 37-47.

20.Samandarovna S. K. IMPACT OF CLIMATE CHANGE ON LIFE ACTIVITIES//*Neo Scientific Peer Reviewed Journal*//Volume 12, ISSN (E): 2949-7752, July,2023.*Page-* 31–33.

21.Самадова Х. С. РОЛЬ ОКРУЖАЮЩЕЙ СРЕДЫ И ЭКОЛОГИИ В ОБРАЗЕ ЖИЗНИ //Journal of new century innovations//Volume–33,Issue-1,Iyul\_2023. 2023. С. 28-30.

22. ХС Самадова. ВОЗДЕЙСТВИЕ ВЫХЛОПНЫХ ГАЗОВ АВТОМОБИЛЕЙ НА ОКРУЖАЮЩУЮ СРЕДУ И ЧЕЛОВЕК// Scientific Impulse //Vol. 2No 14 (2023), С 466–469.

23. А.А. Жумаева, Т.Б. Тилавов, А.А. Саидов.Гигиенические вопросы при применения инсектицида Селлер в сельском хозяйстве//ТА'LIM VA RIVOJLANISH TANLILI ONLAYN ILMIIY JURNALI, 26-33

24.XS Samadova.,Turli mehnat sharoitidagi omillarning inson organizmiga gigiyenik bahosi// Ta'lim fidoyilari, С8-11



25. А.А. Jumaeva. Hygiene parameter primeneniya Insecticide Celler v selskom Khozyaystve // Mejdunarodnaya nauchno-prakticheskaya konferentsiya. Bukhara. - 2020. 417-421.

26. XS Samadova, MZ Oxunjanova. Health in the Process of Mental Work // RESEARCH JOURNAL OF TRAUMA AND DISABILITY STUDIES // Volume: 01 Issue: 12 | Dec – 2022 ISSN: 2720-6866. Page 89-94

27. А. А. Жумаева. Гигиена Труда В Ковроткаческой Промышленности, Прогноз И Профилактика Производственно Обусловленных Заболеваний // AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI 2 (5), 355-358

28. А.А. Zhumaeva. STUDY OF SANITARY AND HYGIENIC LABOR CONDITIONS IN CARPET PRODUCTION // EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE 3 (3), 65-68

29. Ibrohimov K. I. Features of Labor in Agriculture // CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES. Volume. – 2022. – Т. 2. – С. 87-91.

30. Ibrohimov KI. The Meal of Students // Indonesian Journal of Education Methods Development. - 2022. - Т. 20. - S. 10.21070 / ijemd. v20i. 629-10.21070/ijemd. v20i. 629.

31. Ibrohimov K. I. Health State of Workers of Cotton Enterprises, Structure of Diseases, Influence of Age and Work Experience // AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI. – 2022. – С. 55-59.

32. Иброҳимов К. И. Чорвачилик Комплекслари Ва Фермаларда Ишловчи Ишчиларнинг Саломатлик Ҳолати, Касалланишлар Структураси, Ёш Ҳамда Иш Стажининг Таъсири // AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI. – 2022. – Т. 1. – №. 7. – С. 334-338.

33. Иброҳимов К. И. Чорвачилик Комплекслари Ва Фермаларда Ишловчи Ишчиларнинг Саломатлик Ҳолати, Касалланишлар Структураси, Ёш Ҳамда Иш Стажининг Таъсири // AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI. – 2022. – Т. 1. – №. 7. – С. 334-338.

34. Ibrohimov K. I. Research of Dust Content in the Air in Production Premises of a Grain Processing Enterprise // Vital Annex: International Journal of Novel Research in Advanced Sciences. – 2022. – Т. 1. – №. 3. – С. 76-80.

## INFORMATION ON ULTRASOUND BIOPHYSICS

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**Key words:** ultrasound, biophysics, interaction, tissues, imaging, therapeutic, waves, reflection, refraction, absorption, scattering, acoustic properties, sonography, diagnostic, HIFU, safety, guidelines.

**Beginning of the topic:** Ultrasound biophysics refers to the study of the interaction between ultrasound waves and biological tissues. This interdisciplinary field combines principles from physics, biology, and medicine to understand how ultrasound energy propagates through tissues and its effects on living organisms.

Ultrasound waves are sound waves with frequencies higher than the upper audible limit of human hearing, typically above 20 kHz. They are widely used in medical imaging, therapeutic applications, and various industrial processes. The biophysical properties of ultrasound are crucial for its safe and effective use in these applications.

One key aspect of ultrasound biophysics is understanding how ultrasound waves interact with tissues. When ultrasound waves encounter biological tissues, they undergo reflection, refraction, absorption, and scattering. These interactions depend on the acoustic properties of the tissue, such as its density, compressibility, and viscosity. Understanding these interactions helps in optimizing ultrasound imaging techniques and therapeutic procedures.

Ultrasound imaging, also known as sonography, is a non-invasive medical imaging technique that uses ultrasound waves to visualize internal body structures in real-time. In diagnostic ultrasound, high-frequency ultrasound waves are transmitted into the body, and the echoes reflected from internal structures are used to create images. The contrast in the images is based on the differences in acoustic properties of various tissues. Ultrasound imaging is widely used in obstetrics, cardiology, gastroenterology, and other medical specialties due to its safety, versatility, and real-time imaging capabilities.

In therapeutic applications, ultrasound waves can be focused to specific target tissues to achieve various effects such as thermal ablation, tissue disruption, and drug delivery. High-intensity focused ultrasound (HIFU) is a non-invasive therapeutic technique that uses focused ultrasound waves to heat and destroy targeted tissues, making it useful for treating tumors and other medical conditions.

The safety of ultrasound is a critical consideration in its biophysical applications. While ultrasound is generally considered safe for diagnostic imaging, the potential biological effects of prolonged or high-intensity ultrasound exposure are areas of ongoing research and debate. Understanding the biophysical mechanisms underlying these effects is essential for establishing safety guidelines and optimizing ultrasound-based therapies.

Ultrasound, also known as ultrasonography or diagnostic medical sonography, is a non-invasive imaging technique that uses high-frequency sound waves to produce images of the inside of the body. It is widely used in various medical specialties for diagnostic purposes, monitoring fetal development during pregnancy, and therapeutic applications.

In ultrasound imaging, a transducer emits high-frequency sound waves into the body and detects the echoes as they bounce back from different tissues. These echoes are then converted into real-time images by a computer. Ultrasound imaging is particularly useful for visualizing soft tissues such as muscles, tendons, organs, and blood vessels. It is commonly used for assessing the abdomen, pelvis, heart, blood vessels, and the musculoskeletal system.

One of the key advantages of ultrasound imaging is its real-time capability, which allows healthcare providers to observe the movement of internal organs and structures as well as blood flow dynamics. This makes ultrasound particularly valuable in guiding interventional procedures such as biopsies, injections, and drainage procedures.

Doppler ultrasound is a specialized technique used to assess blood flow through blood vessels and the heart. By measuring the Doppler shift in the frequency of reflected ultrasound waves, Doppler ultrasound can provide information about the direction and velocity of blood flow. This is valuable for diagnosing conditions such as blood clots, artery blockages, and heart valve disorders.

In addition to diagnostic imaging, ultrasound is increasingly being used for therapeutic purposes. High-intensity focused ultrasound (HIFU) is a non-invasive technique that uses focused ultrasound waves to precisely heat and destroy targeted tissues. HIFU has applications in the treatment of various medical conditions, including uterine fibroids, prostate cancer, and essential tremor.

### References

1. Hynynen, Kullervo, and Charles A. Cain. "Noninvasive surgery of the brain: a new therapeutic ultrasound." *Technology in cancer research & treatment* 2.2 (2003): 187-192.
2. Ophir, Jonathan, and Marvin M. Doyley. "Elastography: principles and methods." *Medical imaging systems technology: methods in diagnosis optimization* (2005): 279-301.

3. Szabo, Thomas L. Diagnostic ultrasound imaging: inside out. Academic press, 2013.
4. Zukhriddinovna K. D. METHODOLOGY OF TEACHING PHYSICS IN ACADEMIC LYCEUMS OF MEDICAL DIRECTION //Journal of Critical Reviews. – 2020. – Т. 6. – №. 5. – С. 2019.
5. Khodjaeva D. Z., Abidova N. S., Gadaev A. M. PROVIDING CORRECT EVALUATION OF STUDENTS IN DISTANCE LEARNING //POLISH SCIENCE JOURNAL. – 2021. – С. 52.
6. Abduganieva S. K., Nurmatova F. B., Khodjaev D. Z. INTER-SUBJECT INTEGRATION ON THE EXAMPLE OF BIOPHYSICS AND INFORMATION TECHNOLOGIES IN MEDICINE //Oriental Journal of Medicine and Pharmacology. – 2022. – Т. 2. – №. 05. – С. 26-31.
7. Djurakulova S. S., Xodjayeva D. Z. ARTERIAL BOSHIM OSHISHI. GIPERTONIYA //Educational Research in Universal Sciences. – 2024. – Т. 3. – №. 2 SPECIAL. – С. 80-82.

## INNOVATIONS AND PERSPECTIVES IN LEARNING ENGLISH

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**Annotation.** The article is devoted to point how it would be effective using innovations to teach English as a foreign language . In this article , the best styles of using innovations are mentioned . As we know, Today in modern world we cannot imagine our life without technologies .And these gadgets are the most powerful way of learning foreign language.

**Key words:** gadgets, technologies, internet, websites , language skills, real atmosphere, trending videos, dictionaries.

The initiation of innovations in erudition and instruction has gave a batter down to nothing out of the ordinary classroom lessons. In accepted way, a educator conducts session in look onto of students with his the entire capability focusing on student's mind to the new theme. But recently, in present technologies period, schooling and the tactic of knowledge possess thoroughly changed. pronto here is a diversity of methods and plateful gadgets to the students in the enhancement of their every one aspects in select sphere. a lot of free technics container be second-hand although or without the practice of the Internet. It is not a new device if one uses the Internet to develop his awareness in English. via the websites based on language erudition and education with the aid of them is not imperfect to a few natives and nor is regarded as a luxury endeavor any extra then. We cannot level enormously evaluate how countless availabilities in technology to study external languages.

Firstly, every single one exhibit novel smartphones which is the a good number well-located thing to persist in as a tool to learn. in attendance are millions of software and listening tracks good thing to students 'prospective in any field. The major and challenging fixation in erudition irrelevant language is dialogue and listening. These know how to be enhanced by keen new and more. We are live in phase everywhere we all the time engage in where to hurry, not having adequate time to completely sit, not closed the hardback and discover something. "...authentic means allow teachers to exhaust contents with massages students desire to hear, they canister gain access to the every day news, guard trending videos which are all the time free on our phones" (David Dembele's chief advisor in TripAdvisor website)

We canister without doubt download e-dictionaries from the Internet and use. near is lecturer too, if the copy is grueling to pronounce it tells your word into two tactic of accent, the U.S and British type of spelling the word itself. If you intend you plus tin testimony your personal voice. a lot of dictionaries are reachable on the

phones, such as: Longman, Oxford, and furthermore Merriam-webster dictionary. nearby are a allotment of comfort free online and offline sources to achieve advanced height of English itself. One of them is essential which makes application of TED consultation to extend a pedagogically speak to to gather language it was introduced by public Geographic Learning. Cambridge institution of higher education insist on suggests Language culture with Digital videotape shows how teachers canister manipulate online documentaries and an motivating YouTube videos to put on efficient lecture and a useful ambiance for students too.

Turning to BBC culture English, it is painstaking to be the finest span to each and every one with its finest facilities. Its education are surpass for populate with a number of earlier knowledge in English. The teaching provide evidence its fame in the midst of the other language schooling websites. Actually, British assembly has on bad terms credo sections into three: for kids, adults, and teenagers. Nearby are hence numerous bit skin texture and know how to be old for self-study. Kind of education and area themes are excellent. here are websites has lots of interactive lessons, videos, sports event and podcasts to learn. This capital it does not make a difference at could you repeat that? Plane you are or could you repeat that? emerge is attractive for you. You are cast iron to notice any class whether it is conducted by tutor or subtitles or equally in one lesson. While you pick up of the tutor to preach about the theme and illustrate it with samples you may touch here is no differentiation between coach at a emblematic lesson. But we bear to admit that we preserve download the capture on film and guard where we go.

As regards to civilizing listening through by means of IT is measured to be useful. But before delightful one website you control to assess your learning at to begin with and subsequently it is benefit for you bargain your indispensable lesson. After we neediness easier one, we bottle be responsible for listen in a minute.com by BBC. It has enormously midstream listening, frequently around one minute. Although, the oral communication was by natives' speakers they are cool to comprehend. The intact listening connection includes free printable handouts, MP3 listening and quizzes connected with the theme. every one of avoid learners to know the essence of the issue. Not simply listening, but besides grammar skills will rise too. after that website is new researcher and problematical which is ordinarily as it should be to other qualified students. A sense of view. BBC.com is subsequently stair to listening. It is a means of communication post and speeches about numerous issues over the world. occasionally they are linked with politics, geography, art, text and other worldwide news. It furthermore contains transcripts. It helps to listen in to native speaker's dialogue and cling up the sense at the unchanged time with the speech.

In conclusion, without any dilly-dallying we container round about that by innovations in English language scholarship is one of the generally cost-effective

customs of coaching language . It helps to learners not merely to boost their language skills but moreover to award them motivation to gather strange language. Moreover , it creates them authentic feeling to impression the language situation.

### References:

- 1.Richards, J., & Rodgers, T. (2001). The nature of approaches and methods in language teaching. In Approaches and Methods in Language Teaching. United Kingdom: Cambridge University Press.
- 2.Rixon, S. (2011). Beyond ABC: Investigating current rationales and systems for the teaching of early reading to young learners of English. Unpublished doctoral thesis, University of Warwick.
- 3.Schwartz, B. D. (2003). Child L2 acquisition: Paving the way. In B. Beachley, A. Brown & F. Conlin (eds.), Proceedings of the 27th Annual Boston University Conference on Language Development. Somerville, MA:
- 4.Cascadilla Press, pp-26-50. Scrivener, J. (2007). Learning teaching (2nd edn). London: Macmillan.
- 5.Skehan, P. (1996). A framework for the implementation of task-based instruction. Applied Linguistics, 17(1), 38-62.
- 6.doi: <https://doi.org/10.1093/applin/17.1.38>
- 7.Stevick, E. (1980). Teaching language: A way and ways. Rowley, Mass: Newbury House.
- 8.Unsworth, S. (2005). Child L2, adult L2, child L1: Differences and similarities. A study on the acquisition of direct object scrambling in Dutch. Ph.D. Dissertation, Utrecht University.

## JANGOVAR SAMBONI TEXNIK-TAKTIK USULARDAN FOYDALANISH

*Allabergenov Zafar Ulug'bekovich*

*Xorazm viloyati sport boshqarmasiga qarashli  
yakka kurash sport turlariga Ixtisoslashtirilgan  
sport maktabi sambo treneri.*



**Annotatsiya:** Ushbu maqola Rossiyada ildiz otgan dinamik jang san'ati bo'lgan jangovar samboning texnik va taktik jihatlarini o'rganadi. Adabiyotlarni tahlil qilish, usullar va natijalar bo'limlari orqali u jangovar samboda qo'llaniladigan asosiy strategiya va texnikalarni ochib beradi, amaliyotchilar va ixlosmandlar uchun tushunchalarni taqdim etadi.

**Kalit so'zlar:** Jangovar sambo, jang san'atlari, texnika, taktika, adabiyotlarni tahlil qilish, usullar, natijalar, munozaralar, xulosalar, takliflar.

### KIRISH

An'anaviy rus jang san'atlari va zamonaviy jangovar texnikaning birlashishi bo'lgan jangovar Sambo o'zining samaradorligi va ko'p qirraliligi bilan xalqaro miqyosda tan olindi. Ushbu maqola jangovar samboda qo'llaniladigan texnik va taktik usullarni o'rganishga, uning murakkab strategiyasi va tamoyillariga oydinlik kiritishga qaratilgan.

Jangovar sambo bo'yicha mavjud adabiyotlarni ko'rib chiqish texnika va taktikaning boy gobelenini ochib beradi. Jangovar sambo jang san'ati fanlaridan olingan keng ko'lamli ko'nikmalarni qamrab oladi. Ushbu soha mutaxassislarining taniqli asarlari jangovar sambo amaliyotchilarining nozik yondashuvi to'g'risida qimmatli tushunchalarni beradi.

Jangovar samboning texnik va taktik usullarini o'rganish uchun o'quv qo'llanmalari, o'quv videolari va bevosita hisob-kitoblar har tomonlama tahlil qilindi. Bunga turli xil stsenariylarda, masalan, tik turgan jang, quruqlikdagi jang va o'tish bosqichlarida qo'llanilishiga asoslangan tasniflash usullari kiradi.

Jangovar sambo Rossiyada paydo bo'lgan va dzyudo, kurash, boks va karate kabi turli jang san'atlari sintezi sifatida rivojlangan jang san'ati. U o'zini himoya qilish va harbiy dasturlar uchun mo'ljallangan bo'lib, zarba berish, tortish va topshirish texnikasining kombinatsiyasini ta'kidlaydi. Bu erda odatda jangovar samboda qo'llaniladigan ba'zi texnik va taktik usullar mavjud:

Ajoyib texnika: jangovar sambo boks va kik-boksingdan zarbalar, zarbalar, tirsaklar va tizzalar kabi ajoyib usullarni o'z ichiga oladi. Zarbalar raqiblarni



zaiflashtirish, teshiklarni yaratish va tortishish yoki otish texnikasini o'rnatish uchun ishlatiladi.

**Grappling texnikasi:** Grappling jangovar samboning muhim jihatini tashkil etadi, jumladan uloqtirish, olib tashlash, qo'shma qulflar va pinlar. Amaliyotchilar erdagi raqiblarni boshqarishni yoki ularni bo'ysundirishni yoki bo'ysunishga o'tishni o'rganadilar.

**Taqdim etish:** jangovar sambo raqiblarni bo'ysunishga majbur qilish uchun keng ko'lamli qo'shma qulflar va chokeholdlarni o'z ichiga oladi. Ushbu usullar tirsaklar, elkalar va tizzalar kabi zaif bo'g'imlarga, shuningdek qon oqimi yoki havo oqimini cheklash uchun bo'yniga bosim o'tkazishga qaratilgan.

**Zarbalardan himoya:** jangovar sambo bo'yicha mashg'ulotlar turli xil hujumlardan samarali himoya qilishni o'rganishni o'z ichiga oladi. Bunga kiruvchi zarbalarning ta'sirini zararsizlantirish yoki minimallashtirish uchun blokirovka qilish, parrying, qochish va qarshi hujum kiradi.

**Kurashdan himoyalalanish:** amaliyotchilar, shuningdek, kurash hujumlariga qarshi mudofaa usullarini o'rganadilar, masalan, olib tashlashdan himoyalalanish uchun cho'zilish, Pim va tutqichlardan qochish va ustun mavqega ega bo'lish uchun orqaga qaytish.

**Klinch ishi:** klinch jangovar samboning hal qiluvchi jihati bo'lib, unda amaliyotchilar raqibining holati va harakatini nazorat qilish uchun yaqin janglarda qatnashadilar. Klinchdan ular otish, urish yoki olib tashlashni amalga oshirishi mumkin.

**Stend-up va quruqlikdagi janglar o'rtasida o'tish:** jangovar sambo amaliyotchilari vaziyatga qarab stend-up va quruqlikdagi janglar o'rtasida muammosiz o'tishni o'rganadilar. Ushbu ko'p qirralilik ularga turli xil stsenariylarga va raqiblarga samarali moslashishga imkon beradi.

**Strategiya va taktika:** jangovar samboda taktik xabardorlik juda muhim, chunki amaliyotchilar raqibining kuchli va zaif tomonlarini baholashlari va strategiyasini mos ravishda o'zgartirishlari kerak. Bu ochilishlardan foydalanish, imkoniyatlar yaratish yoki jangning tezligi va oralig'ini belgilashni o'z ichiga olishi mumkin.

**Jismoniy konditsionerlik:** har qanday jangovar sport singari, jangovar samboda ham jismoniy tayyorgarlik muhim ahamiyatga ega. Amaliyotchilar texnikani samarali bajarish va raqobat yoki o'zini himoya qilish holatlariga qarshi turish uchun kuch, chidamlilik, chaqqonlik va moslashuvchanlikni rivojlantirishga o'rgatadilar.

Umuman olganda, jangovar sambo-bu zarba berish, tortishish va o'zini himoya qilish intizomlaridan turli xil texnika va taktikalarni birlashtirgan keng qamrovli jang san'ati bo'lib, uni jangovar sport turlari va haqiqiy o'zini himoya qilish uchun ko'p qirrali va samarali tizimga aylantiradi.

Natijalar turli vaziyatlarga moslashuvchan jangovar tizim sifatida jangovar Sambo samaradorligini ta'kidlaydi. Uning ko'p qirraliligi va samaradorligiga urg'u berish amaliyotchilarga turli xil jangovar harakatlarni ravonlik va aniqlik bilan boshqarishga imkon beradi. Bundan tashqari, zarba berish, tortishish va bo'ysunish texnikasining integratsiyasi jangovar samboning jang san'ati mashg'ulotlariga yaxlit yondashuvini ta'kidlaydi.

### XULOSALAR

Xulosa qilib aytganda, jangovar samboning texnik va taktik usullari an'anaviy va zamonaviy jang san'ati tamoyillari sintezini aks ettiradi. Keng ko'lamlı texnika va strategiyalarni o'z ichiga olgan holda, jangovar Sambo amaliyotchilarni o'zini himoya qilish va raqobatbardosh muvaffaqiyat uchun zarur vositalar bilan jihozlaydi. Uning davomiy evolyutsiyasi va global mashhurligi uning jang san'atlari sohasidagi doimiy ahamiyatini tasdiqlaydi.

Jangovar sambo bo'yicha malakasini oshirishga intilayotgan amaliyotchilar uchun doimiy tayyorgarlik va o'qish birinchi o'rinda turadi. Turli xil o'quv metodologiyalarini o'rganish, seminarlarda qatnashish va tajribali o'qituvchilardan yo'l-yo'riq izlash san'atni tushunish va o'zlashtirishni chuqurlashtirishi mumkin. Bundan tashqari, dzyudo, kurash va ajoyib san'at kabi qo'shimcha fanlar bo'yicha o'zaro mashg'ulotlar repertuarini boyitishi va jangovar sambo bo'yicha har tomonlama mahoratni oshirishi mumkin.

### Adabiyotlar:

1. Аслаханов С. А. Народные подвижные игры и физические упражнения как средство повышения эффективности уроков физической культуры // Теория и практика физической культуры. 1991. № 12. С. 43–45.
2. Зезюлин Ф. М. Психолого-педагогические условия формирования двигательных умений и навыков самбистов. Исследования молодых ученых в практику единоборств : материалы VII международной научно-практической конференции, посвященной памяти профессора Е. М. Чумакова РГУФК. М., 2007. С. 203–207.
3. Кондаков А. М., Коноваленко Ю. Г., Рыжаков П. А. Моделирование поединков в подготовке дзюдоистов различных весовых категорий // Известия Тульского государственного университета. Физическая культура. Спорт. 2017. № 2. С. 149–153.
4. Кондаков А. М. Координационная подготовленность борцов различных весовых категорий : материалы VI Международной научной конференции студентов и молодых учёных. 2016. С. 136–141.
5. Левицкий А. Г., Матвеев А. А., Поципун О. В., Неробеева О. Н. Биомеханический анализ броска через бедро в спортивной борьбе. Теория и практика физической культуры. 2018. № 8. С. 89–91.
6. Насырова Е. М., Насыров Е. Г. Повышение эффективности выполнения технико-тактических действий высококвалифицированными самбистами // Теория и практика физической культуры. 2016. № 6. С. 79–82.

## AVTOMOBIL GENERATOR ISHLAB CHIQRISHDA KRISHKA PODSHIPNIGINI YIG'ISHNING TEXNOLOGIK JARAYONINI AVTOMATLASHTIRISH UCHUN BOSHQARUV TIZIMLARINI SINTEZ QILISH ALGORITMLARI

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**Annotatsiya:** Avtomobil generatorining podshipniki sifatli va uzoq vaqt ishlashi uchun texnologik jarayonni avtomatlashtirishga ehtiyoj seziladi. Ishlab chiqaruvchilar oldida turgan asosiy muammolardan biri yuqori sifatli mahsulotlarni ta'minlash va samaradorlikni oshirish uchun yig'ish jarayonlarini optimallashtirishdir.

**Kalit so‘zlar.** PLC, generator podshipnik, podshipnik yig'ish.

**Key words.** PLC, generator bearing, bearing assembly.

Avtomobilning elektr zaryadlash tizimining bir qismi bo'lgan avtomobil alternatorining muhim komponentlari. Alternator avtomobil akkumulyatorini qayta zaryadlash va avtomobilning turli elektr qismlarini, masalan, faralar, konditsioner, radio va boshqalarni quvvatlantirish uchun zarur bo'lgan elektr energiyasini ishlab chiqarish uchun javobgardir. Alternator podshipniklari eskirib boshlaganda yoki nosozlik belgilarini ko'rsatsa, bir nechta muammolar paydo bo'lishi mumkin, jumladan: Shovqin: Alternator hududidan kelayotgan silliqlash yoki chertish shovqini noto'g'ri podshipniklarni ko'rsatishi mumkin.

Avtomobil alternatorlari transport vositalarini elektr zaryadlash tizimining muhim tarkibiy qismidir. Ushbu generatorlar batareyalarni qayta zaryadlash va avtomobilning faralar, konditsionerlar, radio va boshqalar kabi turli xil elektr tizimlarini elektr energiyasi bilan ta'minlash uchun javobgardir. Biroq, podshipniklar kabi muhim komponentlarning noto'g'ri ishlashi jiddiy muammolarga olib kelishi mumkin.

Avtomobil alternatoridagi podshipniklarning roli.

Podshipniklar avtomobil alternatorining ishlashida asosiy rol o'ynaydi. Ular generator rotorining silliq aylanishini ta'minlaydi, bu esa o'z navbatida o'zgaruvchan tok hosil qiladi. Rulmanlar eskirsa yoki ishlaymay qolsa, bu turli xil salbiy oqibatlariga olib kelishi mumkin.

Nosoz podshipniklar diagnostikasi

Nosoz podshipniklar ning eng keng tarqalgan belgilaridan biri bu alternator hududidan chiqadigan shovqin. Ushbu shovqin avtomobil ishlayotganida eshitilishi mumkin bo'lgan silliqlash yoki chertish tovushlari shaklida paydo bo'lishi mumkin. Bu ko'pincha nosoz podshipniklar larning eskirganligini va ularni almashtirish kerakligini ko'rsatadi.

Avtomobil generatori podshipniklarining holatini aniq tashxislash uchun turli xil ilmiy usullar qo'llaniladi. Ulardan biri tebranish diagnostikasi bo'lib, u podshipniklar tomonidan ishlab chiqarilgan tebranishlarni tahlil qilish va ularning holatini aniqlash imkonini beradi. Vizual tekshirish va haroratni o'lchash usullari ham qo'llaniladi, bu aşınma yoki shikastlanish belgilarini aniqlashga imkon beradi.

Podshipniklar alternatorlarning muhim elementlari hisoblanadi, chunki ular rotorning (alternatorning aylanadigan qismi) silliq aylanishiga imkon beradi. Podshipniklar ishqalanishni kamaytirish va yuklarni qo'llab-quvvatlash uchun mo'ljallangan komponentlar bo'lib, rotorning minimal qarshilik bilan aylanishiga imkon beradi. Alternatorning ishonchli ishlashi va uzoq umr ko'rishini ta'minlash uchun alternatorlarda ishlatiladigan podshipniklar yuqori sifatli bo'lishi kerak.

Sharli podshipniklar odatda ko'plab alternatorlarda qo'llaniladi, chunki ular past ishqalanish va yuqori yuk ko'tarish qobiliyatini ta'minlaydi. Silindrsimon va konusli podshipniklar dizayn talablariga qarab ma'lum ilovalarda ham qo'llanilishi mumkin. Buzilishlar va ishlash muammolarini oldini olish uchun alternator podshipniklarini muntazam ravishda saqlab turish va almashtirish muhimdir. Podshipnik ishlamay qolishi belgilari orasida g'ayritabiiy shovqinlar, haddan tashqari tebranish va elektr quvvatining yo'qolishi bo'lishi mumkin. Podshipnik sanoati avtomobillarning ommaviy ishlab chiqarilishi tufayli 20-asr atrofida tez o'sdi.

Ishlab chiqarish sanoatidagi zamonaviy tendentsiya mashina ishlarini avtomatlashtirishdan iborat. Hozirda yaxshi ma'lum bo'lganidek, avtomatlashtirish mahsuldorlikni oshirishga, sifatni yaxshilashga yoki sifatni prognozlash qobiliyatini oshirishga, jarayonning mustahkamligini oshirishga va ishlab chiqarishning mustahkamligini oshirishga olib keladi. Bu ishlab chiqarish liniyasi uchun bir xil darajada qo'llaniladi. Maqolada generator podshipniklarini ishlab chiqarishda jarayonini avtomatlashtirish uchun MicroLogix-1000 PLC-ga asoslangan kontroller qo'llash ma'qul bo'ladi.

Sanoat va tadqiqotchilar prototip ishlab chiqarishda vaqt va pulni tejash uchun sanoat jarayonlari uchun boshqaruv tizimlari va nazorat qilish komponentlarining yangi dizaynlarini tekshirish uchun simulyatsiya vositalaridan foydalanadilar. Xuddi shu ruhda, bu erda taqdim etilgan PLC-ga asoslangan kontroller RSLogix Emulate-500-da PLC dasturini taqlid qilishda FluidSim-P-da pnevmatik press operatsiyalarini simulyatsiya qilish orqali baholandi.

Avtomobil generator podshipniklarini ishlab chiqarish jarayoni uchun PLC-ga asoslangan boshqaruv moslamasi muvaffaqiyatli ishlab chiqildi. U RSLogix Emulate-500-da PLC dasturini va FluidSIM-P-dagi press operatsiyalarini taqlid qilish orqali baholandi. Ushbu PLC-ga asoslangan avtomatlashtirish har bir bosqichda yuzaga keladigan kechikishlarni qisqartirish orqali ishlab chiqarish vaqtini qisqartiradi, bu qo'lda rejimda muqarrar. Ikkinchidan, VFD an'anaviy yulduz uchburchak starterining

o'rnini bosganligi sababli, motorni ishga tushirish silliq bo'ladi va energiya sarfi kamayadi. Uchinchidan, texnik xizmat ko'rsatish vaqti ham qisqaradi, chunki nosozliklar PLC tomonidan uning chiqish terminallariga ulangan ko'rsatkichlarda ko'rsatilgan. Nihoyat, xavfsizlik choralari avtomatlashtirish hisobiga ishchilarning xavfsizligi ortadi. Bu yerda bayon qilingan ishlar dvigatel podshipniklarini ishlab chiqarish jarayonini mo'ljallangan umumiy avtomatlashtirishga qaratilgan birinchi qadamdir. Yaqin kelajakda boshqa jarayonlar uchun ham PLC-ga asoslangan kontrollerlarni ishlab chiqish taklif etiladi, ularning ba'zilari neyro-loyqa yondashuvga asoslanadi. Butun ishlab chiqarish jarayonini nazorat nazorati va ma'lumotlarni yig'ish (SCADA) tizimi orqali markazlashtirilgan holda nazorat qilish taklif etiladi, u Internetga ulanadi va shu bilan narsalar Interneti (IoT) amalga oshiriladi.

### **Foydalanilgan adabiyotlar:**

1. M.V.S. Babul, A. Rama Krishna va K.N.S. Suman, "Jurnalni o'rnatish materiallari va hozirgi tendentsiyalarni ko'rib chiqish", Kolumbiya xalqaro nashriyoti American Journal of Materials and Technology, 2015, Vol. 4 No 2, 72-83-betlar.
2. WANG Xong. (2011) "Ish qismlari aylanishi uchun PLC-ga asoslangan gidravlik tizimni loyihalash". Procedia Engineering 15: 122-126.
3. Sudeep Kelaginamane, Sridhar D. R. "PLC asosidagi pnevmatik zımbalama mashinasi," Mashinasozlik va avtomatlashtirish jurnali, 2015 yil, 5-jild (3B), 76-80-betlar.
4. Rockwell Automation, "RSLogix 500 Natijalarni olish bo'yicha qo'llanma", 2015 yil noyabr.

## ИСПОЛЬЗОВАНИЯ TORQUE ARM & HANDHELD NUTRUNNER HFC3000 ПРИ АВТОМАТИЗАЦИИ ПРОЦЕССА СБОРКИ КРЫШКИ ПОДШИПНИКА АВТОГЕНЕРАТОРА

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**Аннотация:** В быстро меняющемся мире производства эффективность, точность и автоматизация находятся на переднем плане. Одной из основных задач, с которыми сталкиваются производители, является оптимизация процессов сборки для обеспечения производства высококачественной продукции и повышения эффективности.

**Ключевые слова:** подшипник автогенератора, сборка подшипников, генератор, техническое обслуживание, уровень точности.

В автомобильной промышленности сборка таких компонентов, как крышки подшипников генератора, требует пристального внимания к деталям и постоянного приложения крутящего момента. Представляем Torque ARM и ручной гайковерт HFC3000, современное решение, которое революционизирует процесс сборки подшипников автогенератора. Torque ARM и ручной гайковерт HFC3000 — это динамичный дуэт, сочетающий в себе мощь автоматизации и точный контроль крутящего момента. Объединив Torque ARM в качестве опорной конструкции и ручной гайковерт HFC3000 в качестве инструмента для затяжки, производители могут добиться беспрецедентной точности и повторяемости в процессе сборки. Torque ARM обеспечивает стабильность и эргономичную поддержку, а ручной гайковерт HFC3000 обеспечивает точные уровни крутящего момента, необходимые для каждой операции затяжки. Одним из основных преимуществ автоматизации процесса сборки подшипников автогенератора с помощью Torque ARM и ручного гайковерта HFC3000 является упрощение операций затяжки возможность секвенирования. Установив систему контроля последовательности, производители могут гарантировать, что крепежные детали затягиваются в правильной последовательности, предотвращая ошибки и несоответствия сборки. Это не только улучшает общее качество готовой продукции, но и увеличивает структурную целостность крышки подшипника автогенератора. Соблюдение стандартов качества имеет решающее значение в производстве, а автоматизация с помощью Torque ARM и ручного гайковерта HFC3000 позволяет производителям внедрять надежные меры обеспечения качества.

Благодаря датчикам обнаружения неисправностей операторы могут получать обратную связь в режиме реального времени о процессе затяжки, что позволяет немедленно вносить коррективы и гарантировать, что все крепежные детали соответствуют желаемым характеристикам крутящего момента. Регулярное техническое обслуживание, калибровка и обучение операторов также являются важными компонентами обеспечения качества и надежности процесса автоматизированной сборки.

### **Резюме.**

В заключение, автоматизация процесса сборки подшипников автогенератора с помощью Torque ARM и ручного гайковерта HFC3000 дает производителям конкурентное преимущество за счет повышения эффективности, точности и качества. Используя это передовое решение для автоматизации, производители могут оптимизировать производственные линии, сократить количество ошибок и повысить общую эффективность. Поскольку отрасль продолжает развиваться и внедрять инновационные технологии, Torque ARM и ручной гайковерт HFC3000 выделяются как надежный и эффективный инструмент, позволяющий совершить революцию в производственных процессах и добиться совершенства в сборочных операциях.

### **Использованная литература:**

1. [www.ziyonet.uz](http://www.ziyonet.uz)
2. Избосаров А.М., Камолов И.Р. Механика. Т. 2009. Страницы 230-239.
3. Стрелков С. П.. Механика. Т. 1977. стр. 430–437.
4. Избосаров А.М., Камолов И.Р. Электромагнетизм. Т. 2006. Страницы 266-286.
5. Каримов А.М., Тошпулатова Ш.О. Использование инновационных технологий в обучении физике. Т. 2017. Страницы 98-101.
6. [https://www.daiichi-dentsu.co.jp/en/products/HFC3000II\\_en.html](https://www.daiichi-dentsu.co.jp/en/products/HFC3000II_en.html).
7. [http://www.sh-saiko.com/upload/pdf/202201/S0140185-C\(EN\)\\_HFC3000%E2%85%A1\\_CONTROLLER](http://www.sh-saiko.com/upload/pdf/202201/S0140185-C(EN)_HFC3000%E2%85%A1_CONTROLLER).

## MUSTAQILLIK DAVRIDA JADIDCHILARGA QARATILGAN E`TIBOR

*Chirchiq shahar kasb – hunar maktabi  
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Ona tili va adabiyot o`qituvchisi*

**Annotatsiya:** Ushbu maqola bugungi kunda dolzarb bo'lgan o'quvchilarning mustaqillikka erishgan davlat shu turg'unlik bois jadidlar orzu qilgan ilg'orlik, modernizatsiya, zamonaviy dunyo bilan uyg'unlashishdan ayri yo'lga tushdi, diktatura tig'i ijtimoiy hayotning barcha jabhalarini, aholi ongini-da zaharlagan mamlaktda o'rni va ahamiyati haqida muhim ma'lumotlar berilgan.

**Kalit so'zlar:** Mustaqil ta'lim, ijodiy fikrlash, loyihalashtirilgan, milliy uyg'onish harakati faollari, jadidchilarning maqsadi

O'quvchilarning mustaqil faoliyatini amalga oshirish jamiyatda faol ishtirok eta oladigan mutaxassislarni tayyorlash uchun muhim shartlardan biridir. Mustaqil ta'limning muammosi nazariy tayyorgarlik davrida o'quvchilarning darsdan tashqari mustaqil ishlashi hajmi va tuzilmasini tahlil qilishni o'z ichiga oladi hamda mustaqil ta'limni samarali tashkil etish o'quv jarayonini jadallashtirishga va o'quvchilarning ijodiy qobiliyatlari, bilimlarini rivojlantirishga yordam beradi

1938-yilning shu kunida Abdurauf Fitrat, Abdulhamid Cho'lpon, Abdulla Qodiriy, yana faoliyati aksariyat jamoatchilikka noma'lum qolayotgan yuzdan oshiq o'zbek ziyolilari o'z vatanining poytaxti Toshkentda kommunistlar rejimi rahbari Stalin tasdiqlagan hujjatga muvofiq otib tashlangan.

Qatl etilganlarning barchasi milliy uyg'onish harakati faollari, jadidchilar edi.

Turkistonni bosqindan, qoloqlik botqo'g'idan, arosatdan ozod qilishga bel bog'lagan, buni qurolli qo'zg'alon emas, o'qish, ta'lim sifati bilangina amalga oshirishga shubha qilmagan ma'rifatparvarlar "xalq dushmani" tamg'asi ostida otuvga hukm qilindi.

Inqirozdagi Turkiston umidlari sifatida siyosiy maydonga chiqqan bu oydinlarning xiyonatkorona qatl etilgani uzoq yillar millatdan yashirildi.

Mustaqillikka kelib marhum prezident Islom Karimov jadidlar xotirasini abadiylashtirdi, Toshkentda muzey ochildi, Shahidlar xiyoboni bunyod qilindi. Ammo bundan qat'i nazar, jadidlar merosiga nisbatan xovotir tuzumni tark etmadi, ular adabiyoti mamlakatda targ'ib etilmadi, jadidlar g'oyasi qabul qilinmadi.

Iqtidordagi hukumat davriga kelib bu xavotir bir qadar bosilayotgandek ko'rinadi.

Prezident Shavkat Mirziyoyev o'qituvchilar kuni munosabati bilan o'tgan tantanada sovetlar qatl etgan jadidchilar Abdulla Avloniy, Mahmudxo'ja Behbudiy va



Munavvarqori Abdurashidxonovni “Buyuk xizmatlari uchun” ordeni bilan taqdirlash qarorini ma’lum qildi.

Stalin qatag’oni nafaqat qirg’in, balki jadidlar timsolidagi Turkiston ozodligi ruhiyatini cho’ktirishga, yo’qotishga ham qaratilgan edi.

Ammo bu ruhiyat sharpasi Fitrat, Cho’lpon adabiyoti taqiq ostida bo’lgan sovet zamonlarida ham Turkiston uzra kezib yurdi. O’tgan asrning 80-90-yillariga kelib O’zbekiston mustaqilligi uchun kurashgan yangi o’zbek ziyolilari avlodini yuzaga chiqardi, ularga ruhiy dalda, ma’naviy kuch berdi.

Jadidlardan keyingi uyg’onish davrini tamsil etuvchi bu yangi avlodning ijtimoiy-siyosiy maydondagi faoliyati mustaqillik kurashi bilan yakunlandi, mustaqillikka erishilishi ortidan ham O’zbekistonda hokimiyat jadidlarni qirg’in qilgan kommunistlarning vorisi sanalgan siyosiy kuchlar qo’lida qoldi.

So’ngi uyg’onish davrini bo’g’ish, muxolifat sifatida maydonga chiqqan jadidlarning yangi avlodini yo’qotish, qamatish, quvg’in qilish bilan kuzatilgan bu siyosiy vorislik O’zbekiston uchun chorak asrlik turg’unlikka ulanib ketdi.

Mustaqillikka erishgan davlat shu turg’unlik bois jadidlar orzu qilgan ilg’orlik, modernizatsiya, zamonaviy dunyo bilan uyg’unlashishdan ayri yo’lga tushdi, diktatura tig’i ijtimoiy hayotning barcha jabhalarini, aholi ongini-da zaharlagan mamlakatga aylandi.

O’zbekistonda hokimiyat almashgan bo’lsa-da, siyosiy vorislik an’anasi barham topgani haqida gapirish qiyin. Iqtidordagi hokimiyat buni sobiq tuzum rahbariga ko’rsatilayotgan doimiy ehtirom misolida jamaotchilikka ochiq taqdim etyapti.

Karimov davridagi turg’unlik jadidlar xotirasini abadiyshlatirish va ular merosini o’rganish, ehtiromlash mutlaqo boshqa-boshqa narsalar ekanligini ko’rsatdi.

Marhum prezident uchun masalaning siyosiy tomoni – jadidlarning Rossiya bosqiniga qarshi ozodlik kurashi ramzi ekani muhim edi; jadidlarning ta’limga asoslangan inqilob g’oyasi esa, aksincha, diktator moqomidagi Karimovni xavotirda ushlagani haqiqatga yaqin.

Marhum Karimovning vorisi Prezident Shavkat Mirziyoyev bu borada qanday yo’l tutadi, hozircha noma’lum.

Bugun mamlakatda xalq ta’limi inqirozli davrni boshdan kechirayotgani, shunday vaziyatda milliy ta’lim uchun jon fido qilgan Avloniy, Behbudiy, Munavvarqori xotirasiga yuksak ehtirom ko’rsatilgani inobatga olinsa, Mirziyoyev uchun masalaning siyosiy emas, aynan ma’rifiy tomoni ustundek ko’rinadi.

Jadidlar oruzusidagi Turkiston ilg’or ta’limga, ma’rifatga, taraqqiyotga asoslangan edi; bu orzu qobiqni, chegaralarni, monarxiya va diktaturani inkor etadi.

Turkiston istiqboli haqida mushohada yuritgan jadidlarning shu xulosalarda to’xtaganiga ham yuz yil, bir asrdan oshmoqda.

Bu xulosalar esa bir asr o'tib ham hozirgi O'zbekiston uchun hamon dolzarb. Mamlakatda so'nggi to'rt yilda yangi O'zbekiston haqida, yaqindan boshlab uchinchi Uyg'onish davri haqida gapirilmoqda.

Ammo jadidlar faoliyati tarixi shuni ko'rsatadiki, uyg'onishni bayonotlar emas, jamiyatning taraqqiyotga intilish kurashi, fikrlar va g'oyalar xilma-xilligiga qorishgan siyosiy muhit, tanlovning mavjudligi belgilaydi.

Malik Mansa

Kelajakni bashorat qilgan jadid

O'tgan yili tavalludining 145 yilligi keng nishonlangan adib, publitsist, pedagog, olim, din va jamoat arbobi Mahmudxo'ja Behbudiy Turkistondagi jadidchilik harakatining asoschilaridan va yetakchilaridan biri edi.

Jadid adibi, o'zbek romanchiligi asoschisi Abdulla Qodiriy kishilarni o'tmishda bo'lib o'tgan voqealar haqida chuqur fikr-mulohaza yuritishga, ulardan saboq chiqarishga, ro'y bergan xato-kamchiliklarni takrorlamaslikka chorlab, "Moziyg'a qaytib ish ko'rish xayrlik, deydilar", deb yozgan edi.

Jadidchilikning g'oyaviy otasi sanalmish Ismoilbek Gasprinskiy tarixdan so'zlash kelajakni bilishni anglatishini uqtirgandi. Ya'ni insonlar o'z kechmishlari va ko'rgan-bilganlarini tahlil etish asnosi kelgusida yana nimalarni boshidan o'tkazishi mumkinligini taxmin qilishi, shunga qarab ish tutishi lozimligini eslatgandi.

So'nggi yillarda bot-bot tilga olinayotgan "Yangi O'zbekiston", "Uchinchi Renessans" kabi iboralar bugun mamlakatimiz ijtimoiy-siyosiy jihatdan yangi bosqichga ko'tarilayotganidan dalolat bermoqda. Bundan 120-130 yilcha muqaddam yurtimiz hayotida sodir bo'lgan murakkab, shu bilan birga, o'ta shiddatli va ziddiyatli voqealarga boy kechgan davrni yodga solmoqda.

Darvoqe, XIX asr oxiri va XX asr boshida Sharq mamlakatlari bo'ylab yoyilgan islohotchilik harakati chor Rossiyasi tobeligidagi Turkiston o'lkasiga ham kirib keldi. U tarix sahifalariga "jadidchilik", vakillari esa "jadidlar" nomi bilan muhrlandi. O'zbekiston Istiqlolga erishgan 1991-yildan hozirga qadar olib borilgan ilmiy tadqiqotlar-u yozilgan talay maqolalarda jadidchilikning tub mohiyati turlicha tadqiq va tahlil qilindi, ko'lami va jamiyatga ta'siri hamda uni rivojlantirgan shaxslarning hayoti va ijodi baholi qudrat yoritildi. Ammo bu masalalar hanuz to'la-to'kis ochib berilmadi.

Prezidentimiz Shavkat Mirziyoyev 2020-yil 30-sentabr kuni O'qituvchi va murabbiylar kuniga bag'ishlangan tantanali marosimda so'zlagan nutqida jadidchilik harakati to'g'risida alohida to'xtalib, jumladan shunday dedi:

"Ko'pchilik ziyolilar qatorida men ham bir fikrni hamisha katta armon bilan o'ylayman: mamlakatimizda Uchinchi Renessansni yigirmanchi asrda ma'rifatparvar jadid bobolarimiz amalga oshirishlari mumkin edi. Nega deganda, bu fidoyi va jonkuyar zotlar butun umrlarini milliy uyg'onish g'oyasiga bag'ishlab, o'lkani jaholat

va qoloqlikdan olib chiqish, millatimizni g‘aflat botqog‘idan qutqarish uchun bor kuch va imkoniyatlarini safarbar etdilar. Shu yo‘lda ular o‘zlarining aziz jonlarini ham qurbon qildilar”.

Davlatimiz rahbari xuddi o‘sha kuni imzolagan farmonga muvofiq, Vatanimiz tarixining g‘oyat murakkab davrida – XX asr boshlarida o‘zining ma‘rifatparvarlik faoliyati va fidokorona xizmatlari bilan milliy ta‘lim-tarbiya tizimini yaratishga hamda yurtimiz istiqloli, xalqimiz ozodligi va erkinligi, kelajak avlodlarning obod va farovon hayotini ta‘minlashga beqiyos hissa qo‘shgan Abdulla Avloniy, Mahmudxo‘ja Behbudiy va Munavvarqori Abdurashidxonov “Buyuk xizmatlari uchun” ordeni bilan taqdirlandi. Ularga hukumat tomonidan ko‘rsatilgan bunday yuksak e‘tiborni kelgusida jadidlarning millat kelajagi va mamlakat taraqqiyoti, uning mustaqilligi va erki yo‘lida qilgan xizmatlarini keng jamoatchilikka, xususan, navqiron yosh avlodga asl holicha yetkazish borasida amalga oshirilajak ishlarning debochasi deyish mumkin.

Zero, jadidchilik harakati hamda jadidlar faoliyatini bugungi kunda o‘rganish va targ‘ib qilish havoday zarur. Biz Uchinchi Renessansni strategik vazifa hisoblab, uni milliy g‘oya darajasiga ko‘tarmoqchi bo‘lsak, jadidlarimiz ta‘kidlashganidek, har kim o‘zgarishi va o‘zgarishni o‘zidan boshlashi kerak. Ayniqsa, ziyolilar va mansabdorlar shunday yo‘l tutmasalar, oldimizga qo‘yilgan yuksak strategik vazifani uddalay olmaymiz.

Endi asl muddaoga o‘taylik. Jadidlar islohotni maktabdan, yanada aniqrog‘i, boshlang‘ich maktabdan boshlashdi. Chunki maktab barcha narsalarning, jumladan, ma‘naviy-ma‘rifiy taraqqiyotning poydevoridir. U mukammal bo‘lmasa, millat ravnaqi haqida gapirish befoya.

Shunga binoan, Mahmudxo‘ja Behbudiy boshliq turkistonlik jadidlar boshlang‘ich ta‘limni ona tilida berishga mo‘ljallangan milliy maktablarning umummilliy institutini yaratishga doir dasturni taklif etishdi. Negaki, o‘sha kezlarda maktablarda o‘qitiladigan barcha darsliklar faqat fors yoki arab tilida edi. Jadidlar esa bola dastlabki savodini o‘z ona tilida, ya‘ni turkiy tilda chiqarishi uning ongiga millat va milliyat tushunchalari chuqurroq singdirilishini ta‘minlaydi, degan to‘xtamga keldilar. Pirovardida, “Barchamizga oftob kabi ravshan va ayondurki, makotib – taraqqiyning boshlang‘ichi, madaniyat va saodatning darvozasidir. Har millat eng avval, makotibi ibtidoiysini zamoncha isloh etib ko‘payturmaguncha taraqqiy yo‘liga kirub madaniyatdan foydalanmas” degan aqidani ilgari surgan Behbudiyga ergashdilar.

O‘z navbatida, Behbudiy quyi va yuqori maktabning isloh qilinishini millatning isloh etilishiga qiyosladi va uni umummilliy g‘oya deb bildi. Millatga “o‘qumoq, o‘qutmoq kerakdur. Bolalarga otalardan ilmi diniy va ilmi zamoniylar meros qolsun”, deya murojaat qilib, o‘zi ilgari surgan milliy g‘oyani barcha targ‘ib qilishi zarurligini ta‘kidladi. Uning tushuntirishicha, millatni ulug‘lash, maqsadlarni yuqori darajaga ko‘tarish, millatning haqiqiy birligini ta‘minlash qolgan barcha g‘oyalardan ustun

turuvchi umummilliy g'oyaning tub mohiyatini tashkil etadi. Bu g'oyada millatning kelajakka intilishi va undan keladigan foyda o'z ifodasini topishi lozim.

Behbudiyning umummilliy g'oyasi targ'iboti uchun milliy matbuot kerak edi. Jadidlar chiqara boshlagan gazeta-jurnallar rosmanasiga fikr almashish, ilg'or g'oya va fikrlarni targ'ib etish, bahslashish maydoniga aylangan, demokratik qadriyatlarni o'zida aks ettirgan, fikrlar qarama-qarshiligini ko'tara oladigan, ijtimoiy-siyosiy mavzulardagi tanqidiy maqolalarni yoritadigan matbuot nashrlari edi. Masalan, Mahmudxo'ja Behbudiy muharrirlik qilgan "Oyina" jurnali ma'rifat va madaniyat tarqatish maqsadida millat va uning haq-huquqlariga, tarixiga, til va adabiyot masalalariga, dunyodagi ahvolga oid turli-tuman maqolalarni chop etdi. Shuningdek, ayni yo'nalishlardagi bahslar uchun minbar vazifasini o'tadi.

Taniqli olim Begali Qosimovning fikricha, Turkiston jadidlarining gazeta va xayriya jamiyatlarini ta'sis etishi, yangi usul maktablarini yoyishi, teatr ishlari va boshqa barcha harakatlari bir milliy g'oya uchun xizmat qildi. Har qanday g'oya milliy g'oyaga aylanishi uchun esa ikkita talabga javob berishi darkor: avvalo, millatning haqiqiy ehtiyojidan, turmush tarzidan, asriy an'ana va imkoniyatlaridan kelib chiqishi, ikkinchidan, milliylashtirilishi, ya'ni millatning har bir vakili yuragiga yetib borishi kerak.

Mahmudxo'ja Behbudiy milliy g'oyasining yana bir targ'ibot quroli, bu – adabiyot edi. Jadidlar Navoiy, Fuzuliy, Sa'diy singari buyuk zotlar hayoti va ijodini chuqur bilishgani sababli adabiyotni xalqqa yaqinlashtirishga, uning tilida yozishga intildilar va bu ishni uddaladilar. Abdulla Qodiriyning bugungi kunda ham istalgan yetuk badiiy asar bilan bemalol bellasha oladigan "O'tkan kunlar"i, Cho'lponning "Kecha va Kunduz"i hamda she'rlari shu tariqa yaratildi. 1916-yili Toshkentda bo'lib, "Turon" truppassi spektakllarini tomosha qilgan rus sharqshunosi A.Samoylovich "Turkistonda yangi adabiyot maydonga keldi. Yangi adabiyotning markazi – Samarqand... Yosh qalamkashlarning bosh ilhomchisi samarqandlik mufti Mahmudxo'ja Behbudiydir", deb yozdi.

Behbudiy boshliq jadidlar xalqni serxarajat tadbirlardan voz kechib, ularga sarflanadigan mablag'larni milliy iqtisodiyotning barcha tarmoqlari bo'yicha milliy kadrlar tayyorlash, yoshlar mahalliy va xorijiy ta'lim muassasalarida tahsil olishi uchun yo'naltirishga undashdi. Bu sa'y-harakatlarni umummilliy ishlar, oliy maqsadlar, xohishlar va intilishlar deb atashdi. Ularni amalga oshirish uchun esa iroda, yanada aniqrog'i, siyosiy iroda kerak edi. Behbudiy XX asr boshidagi Turkistonning yirik siyosiy arbobi sifatida Turkiston Muxtoriyati tuzilishidan 11 yil avval – 1906-yil dayoq Turkiston Milliy-madaniy Muxtoriyati loyihasini ishlab chiqib, yuqori doiralarda muhokama qilish uchun Rossiya davlat Dumasiga yo'lladi. Bu loyihada u ta'lim-tarbiya va yer muammolarini qat'iy masala qilib qo'ydi, ayniqsa, rus

muhojirlarini ko‘chirib keltirmaslik va hosildor yerlar mahalliy aholi ixtiyorida qolishi kerakligi haqida astoydil qayg‘urdi.

Behbudiy ma‘naviy ustozlari Ismoilbek Gasprinskiy singari musulmonlarga siyosiy huquqlar berilishi mavjud muammolarni hal etmasligini teran anglab yetdi.

Unga ko‘ra, zamon tili bo‘lgan rus tilini va mavjud qonunlarni bilmaslik, hammasidanam achinarlisi, musulmonlarning zamonaviy bilimlardan bexabarligi qo‘lga kiritilgan barcha siyosiy huquqlarni yo‘qqa chiqaradi. Binobarin, bobokalonimizning “Haq olinur, berilmas... G‘ayrat ila olinur” degan chaqirig‘i zamirida millat ozod bo‘lib, o‘zining mustaqil davlatini o‘rnatmaguncha, ijtimoiy adolatni tiklab bo‘lmaydi, degan fikr mujassamlashgandi.

Shu o‘rinda Behbudiyning jadidlarning yosh avlodi to‘g‘risidagi fikrlarini ham keltirib o‘tish maqsadga muvofiqdir. Uning aniqlashicha, bu avlod o‘rtasida g‘oyaviy ixtilof mavjudligi tufayli xalq jadidlardan yuz o‘girgan. Shuni nazarda tutib, yoshlarni tezroq o‘zaro kelishuv yo‘lini topishga va qaytadan el-ulus ishonchini qozonishga chaqirdi. Chunki umummilliy g‘oya yo‘lida birlashib harakat qilmaslik millat bo‘linishiga va ayrim umummilliy loyihalar muvaffaqiyatsizlikka uchrashiga olib kelishi mumkin edi.

Shavkat Mirziyoyev to‘g‘ri ta‘riflaganidek, jadidlar “Ilmdan boshqa najot yo‘q va bo‘lishi ham mumkin emas” degan hadisi sharifni hayotiy e‘tiqod deb bildilar. Milliy istiqlol, taraqqiyot va farovonlikka, avvalo, ma‘rifat orqali, dunyoviy va diniy bilim, zamonaviy ilm-hunarlarini chuqur egallash orqali erishish mumkin, deb hisobladilar. Mahmudxo‘ja Behbudiy bu borada safdoshlari va izdoshlariga ibrat ko‘rsatdi.

Bizningcha, endilikda Turkistondagi jadidchilik harakati mintaqada o‘ziga xos o‘rin tutganini ko‘rsatib berish, jadidlar faoliyati va ijodini chuqur o‘rganish, keng ko‘lamli ilmiy tadqiqot ishlarini olib borish va targ‘ib qilish maqsadida yetuk ma‘rifatparvar, siyosatchi, adib, noshir va publitsist Mahmudxo‘ja Behbudiy nomi bilan ataladigan “Jadid tadqiqotlari akademiyasi”ni tashkil etish vaqti keldi. Chunki jadid maktabi, bugungi istilohlar bilan aytsak, innovatsion va “smart” maktab edi. Unda joriy etilgan “tovush usuli” zamonaviy ta‘limning asosi, ta‘bir joiz bo‘lsa, tamal toshi bo‘lib qoldi. Qolaversa, Uchinchi Renessans bo‘lag‘asida turgan yangi O‘zbekistonda ham maktabgacha ta‘lim va maktab ta‘limi bo‘lg‘usi Renessansning uzviy xalqasi, jadidlar “arkoni millat” yoki “millat ustunlari” deb atagan ziyolilar esa yangi Uyg‘onish davrining tayanch ustuni sifatida qabul qilindi.

Eng muhimi, jadidchilik harakati va jadidlar zamonaviy o‘zbek jamiyati va davlatchiligi shakllanishiga katta hissa qo‘shdilar. Ularning boy ilmiy va ijodiy merosi bugungi murakkab davrda O‘zbekistonda milliy g‘oya va mafkuraviy immunitetni kuchaytirishda, o‘z mustaqil fikriga ega hamda fidoyi va vatanparvar avlodni tarbiyalashda muhim ahamiyat kasb etadi. Shu bois Behbudiy, Munavvarqori, Fitrat,

Cho'lonlarning g'oyaviy merosi biz uchun doimiy harakatdagi hayotiy dasturga aylanishi kerak, deb hisoblaymiz.

### **Foydalanilgan adabiyotlar:**

1. R.R. Xusainov “Oliy ta’limda fanlarni o’qitish sifatini oshirishda mustaqil ta’limning roli”.
2. Otamirzayev O.U. Zokirova D.N “Методические рекомендации по организации самостоятельной работы студентов”.
3. Usmonov M. “Интерактив электрон o’quv kurslar — o’qitish faoliyatining yangi vositasi sifatida”
4. Хамидов Ё. Ё. “Та’лим samaradorligini oshirishda elektron ta’lim resurslarining o’rni”
5. Листенгартен В.С. “Самостоятельная деятельность студентов”  
4-oktabr Turkiston milliy ozodlik harakati faollari ommaviy qirg’in qilingan sana.

## МЕХАНИКАНИНГ ОЛТИН ҚОИДАСИ

*Allaberganov Sherzod Komilovich**Xorazm viloyati Xiva shaxar**Ogahiy ijod maktabi fizika fani o'qituvchisi*

**Annatsiya:** Ushbu maqolada fizika fanida mexanikaning oltin qoidasi, Nyutonning mexanika qonuni va bugungi kunda fizika fanining qonun va qonunuyatlari bizning hayotimizdagi o'rni haqida qisqacha gap boradi.

**Kalit so'zlar:** Moddiy nuqta, mexanika, harakat, jism, tezlig, qonun, dinamika, fizika.

Harakatni boshqaruvchi obyektiv qonunlarni o'rnatishga urinish antik davridayoq boshlangan edi. Ammo mexanika fan sifatida yaratuvchisi Isaak Nyuton (1642-1727) tomonidan tajriba natijalarining tahlili, yangi fizik tushunchalar kiritish va ular. O'rtasidagi mutanosiblikning qat'iy matematik asoslari o'rnatildi va matematika fanda yagona til hamda uning yutuqlarini insoniyat hamjamiyatining amaliy maqsadlarida qo'llashda qudratli vosita bo'lib qoldi.

Moddiy nuqtaning mexanikasi. Moddiy nuqtaning harakatini tasvirlay olish uchun uning ma'lum bir momentdagi holatini aniqlash kerak. Shaklda. 1-rasmda koordinatalar  $(x, y, z)$  bo'yicha P nuqtada joylashgan moddiy nuqtaning holatini tavsiflash imkonini beruvchi to'rtburchaklar koordinatalar tizimi ko'rsatilgan. Moddiy nuqtaning o'lchamlari yo'qligi va shuning uchun u yoki bu yo'nalishda yo'naltirilishi mumkin emasligi sababli, bu uchta raqam har qanday vaqtda uning holatini to'liq tavsiflaydi. Agar ularni  $t$  vaqt funksiyalari deb hisoblasak,  $[x(t), y(t), z(t)]$  funksiyasi fazoda moddiy nuqtaning harakatini to'liq aniqlaydigan traektoriyani chizadi. Moddiy nuqta dinamikasining asosiy vazifasi, agar moddiy nuqtaga ta'sir qiluvchi kuchlar berilgan bo'lsa,  $x, y$  va  $z$  ning  $t$  ga bog'liqligini topishdir. (Albatta, bir-biriga kuch ta'sir qiladigan bir nechta moddiy nuqtalar haqida muammo bo'lishi mumkin; bunday muammolarni hal qilish qiyinroq.)

Avval to'g'ri chiziq bo'ylab harakatlanayotgan moddiy nuqtani, aytaylik,  $x$  o'qi bo'ylab, hech qanday kuchlar bo'lmaganda ko'rib chiqaylik. O'rta asr mexanikasida Aristotelga ergashib, jismga kuch ta'sir qilganda harakat qiladi, degan fikr ilgari surilgan. Biroq, Galiley va undan keyin Nyuton kuchning yagona ta'siri jismning harakatini o'zgartirish ekanligini va kuch bo'lmaganda tana tinch holatda qoladi yoki bir tekis va to'g'ri chiziqda harakat qilishda davom etishini aniqladilar. Bu Nyutonning mexanikaning birinchi qonuni. Yagona harakat deganda,  $t$  vaqt ichida bosib o'tgan  $x$  yo'li quyidagiga teng bo'lgan o'zgarma  $v$  tezlikli harakatni tushunamiz:  $x = vt$ .

Matematika fan tili sifatida ikki vazifani bajaradi. Birinchidank matematik ifodalarning aniqligi fizik kattaliklarni universal usulda aniqlash imkonini berib, istalgan joydagi istalgan mutaxassis tomonidan bu kattalikning berilgan aniq qiymati, istalgan boshqa mutaxassis tomonidan bir xil ma'noda tushuniladi. Masalan, ilmiy oynoma orqali, biror jismning tajribada o'lchangan tezligi "sekundiga bir metr" ekanligi haqidagi xabar yoritilsa, bu ma'lumot barcha, shu sohadagi qiziquvchi kitobxonlar tomonidan, tezlik haqida  $v = dr/dt$  ko'rinishdagi aniq matematik ifoda borligidan,

“sekundiga bir metr” nima ekanligi birday tushuniladi. Keyinroq, jismning harakat tezligi tushunchasini qat’iy, obyektiv aniqlash muammosi oliy matematikaning rivojlanishiga turtki bo’lgan.

Kundalik kuzatuvlar nuqtai nazaridan bir qarashda bunday davro o’rinliday ko’rinadi. Haqiqatan ham, biror jismni gorizontalsirt bo’ylab qo’zg’atish uchun unga aniq bir kuchlanish bilan ta’sir qilish kerak. Shunga qaramasdan, zamonaviy mexanika nuqtai nazaridan bu yanglish davro va bu xato, o’sha davrda “kuch” tushunchasini qat’iy matematik aniqlash imkoni bo’lmaganligi sababidan faylasuflar va olimlar ongida (xususan, Aristotelning qar dimiy dunyo olimlari orasidagi katta obro’si tufayli) ikki yarim ming yildan ortiq vaqt saqlanib kelgan. Bu xato faqatgina, har birimizga maktabdan ma’lum bo’lgan, Newton tomonidan kuch, haqidagi zamonaviy,  $F = ma$  ta’rif berilgach to’g’rilandi. Bundan, xususan, jismning doimiy tezlik bilan harakatlanishi uchun (tezlanish nolga teng bo’lgan holda) tashqi kuchlar zarur emasligi kelib chiqadi, kundalik kuzatuvlar esa bu holda jismga qo’yilgan kuchlarning muvozanatda bo’lishidan dalolat beradi.

Mexanikaning asosiy qonunlari klassik ko’rinishda Nyuton tomonidan aniq ta’riflangan. Bu qonunlarning ta’riflanishi zamonaviy ta’riflar bilan juda ham mos kelmasada, jismlar orasidagi o’zaro ta’sir aniq berilganda ularning harakati haqidagi fanning jismlar harakat dinamikasining muvaffaqiyat bilan shakllanishiga asos bo’lib xizmat qilgan. Nyuton fizikani chuqur bilishi va kuchli matematik intuitsiyasi tufayli bu maqsad uchun nechta qonun zarur bo’lsa, shuncha, ya’ni uchta qonun yaratdi.

Agar jism o’z holiga tashlab qo’yilsa, ya’ni hech qanday tashqi kuch ta’sir qilmasa, u tinch holatida qoladi, yoki tezlanishsiz, doimiy tezlik bilan harakatda bo’ladi. Bu

$$F = 0 \text{ bo'lganda } a = 0$$

Mexanika qonunlarini ta’riflashda Nyuton sanoq sistemasiga katta ahamiyat bergan. Shu bilan birga, nafaqat vaqt, balki fazo ham mutlaq deb hisoblagan, ya’ni fazo bilan bog’langan alohida sanoq sistemaning mavjudligi haqidagi postulatni ilgari suradi. U “qo’zg’almas” yulduzlarga bog’langan koordinatalar sistemasi bunday sistema uchun juda yaxshi yaqinlashish deb hisoblagan. Nyuton bu qonunlarni xuddi mana shu sanoq sistemalarida ta’riflagan. Klassik mexanikaning qo’llanilish chegaralari aniqlovchi kuchli tengsizliklar doirasida bunday yaqinlashish unchalik yomon emas edi.

Aslida, yulduzlar harakatsiz emasligini bilamiz. Bundan ham muhimi, fizikaning rivojlanishi ilm ahlini mutlaq fazo tushunchasidan voz kechishga majbur qildi. Hozirgi zamon tushunchasiga ko’ra hech bir “unga” o’xshashi (masalan, “olam efiriga” o’xshash) yo’q. Shunga qaramay, mexanika qonunlarini, shu jumladan relyativistik va kvant mexanika qonunlari, boshidan alohida xossaga ega sanoq sistemasida ta’riflashga kelishilgan. U erkin fizik jism tushunchasiga asoslanadi. Bunday jism boshqa jismlar bilan o’zaro ta’sirdan holi bo’lishi kerak. Bu esa faqat mutlaq yakkalangan jism uchun o’rinli bo’lishi mumkin. Aslida butunlay erkin jism tabiatda yo’q. Chunki, - ikkilik va undan ortiq jismlar orasidagi o’zaro ta’sir qanchalik kuchsiz bo’lmasin, ular (ularni uzatuvchi maydonlar) chekli masofada nolga teng bo’lmaydi. Shunday ekan, butunlay erkinlik biz kuzatayotgan jismning boshqa jismlardan yetarlicha cheksiz uzoqlashishini nazarda tutadi.



Real fizika, albatta, bu xossani qandaydir chegaraviy hoi ma'nosida talqin qiladi, real holatni esa u yoki bu aniqlikda tavsiflangan ideal holatga yaqinlashish deb qaraladi.

Bunday jism bilan bog'langan sanoq sistemasida hech qanday boshqa jismlar bilan ta'sirlashmayotgan jism tinch holatda bo'ladi. U holda, biz ajratib olgan sanoq sistemaga nisbatan tekis va to'g'ri chiziqli harakat qilayotgan har qanday sanoq sistemasida erkin jismning tezlanishi nolga teng bo'lishi kerak. Norelativistik mexanikada bu fikr to'g'ridan-to'g'ri (2.52) munosabatdan kelib chiqadi, relativistik mexanikada esa bu xossani alohida postulat sifatida tavsiflash lozim bo'ladi. Bunday sistemalar cheksiz ko'p (kontinuum) hamda ularning barchasi teng huquqli va har birida qandaydir mutlaq erkin jism tinch holatda bo'lishi kerak. Umuman olganda, bunga o'xshash ixtiyoriy sanoq sistemasida ixtiyoriy jism qandaydir doimiy tezlik v bilan harakatlanishi lozim.

Mutlaq erkin jism tinch holatda yoki to'g'ri chiziqli tekis harakatda bo'ladigan sanoq sistemasi inersial sanoq sistemasi deb ataladi.

Imkon darajasida universal ma'no berish uchun fizik qonunlarni, xususan mexanika, qonunlarini ana shunday sanoq sistemaliirida tavsiflash qabul qilingan. Mutlaq erkin jism tushunchasi icb'allashtirilgan tushuncha bo'lib, uning mavjudligi fizik tajribalar Hsosida postulat, sifatida qabul qilinishi kerak.

Birgina bo'lsa ham demak, cheksiz sondagi inersial sanoq sistemalarining mavjud bo'lishligi hozirgi kuch tushunchasidagi Nyutonning birinchi qonunidir.

#### **Foydalanilgan adabiyotlar:**

1. Brian Dolan, Lecture notes for Mechanics, <http://www.thphys.nuim.ie/Notes/Mechanics/lectures.pdf>
2. Eric Poisson, Advanced mechanics <https://www.physics.uoguelph.ca/poisson/research/mech.pdf>
3. Douglas C. Gianco, Physics Principles with Applications. New York 2014. <https://www.amazon.com>
4. Strelkov S.P. Mexanika. Uchebnoe posobie - Moskva: Nauka, Adabiyot 2011. - Sivuxin D.P. Umumiy fizika kursi. 1-qism. Toshkent: O'qituvchi, 1981. -520 b

## THE NOTION OF METAPHORICAL COGNITION IN LITERARY DISCOURSE

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**Abstract:** Metaphor, an integral element of human thought processes, has been widely acknowledged as a potent instrument within literary discussions. This paper delves into the concept of metaphorical cognition within literary contexts, scrutinizing its impact on the formation of significance, imagery, and thematic progression in literary compositions. Employing an examination of pertinent literature and critical dialogue, this research probes into the manner by which metaphorical cognition shapes reader comprehension and involvement with literary creations.

**Keywords:** Metaphor, cognition, literary discourse, meaning, imagery, thematic development.

**Introduction.** Metaphor, functioning as a cognitive process, holds paramount importance in the domain of literary discourse, enabling the portrayal of abstract concepts and emotions through tangible imagery and linguistic constructs. This article delves into the concept of metaphorical cognition within literary discourse, with the objective of elucidating its crucial role in enriching the depth and intricacy of literary compositions. Through an analysis of the intricate relationship between metaphorical thought processes and literary articulation, this study endeavors to offer insights into the ways in which metaphors influence reader comprehension and interpretation of literary works. Metaphor serves as a cognitive mechanism that is indispensable in literary discourse, facilitating the representation of abstract notions and sentiments through concrete imagery and language. This article explores the notion of metaphorical cognition within the context of literary discourse, aiming to clarify its pivotal role in augmenting the complexity and depth of literary texts. By scrutinizing the dynamic interaction between metaphorical thought processes and literary expression, this research aims to provide insights into the manner in which metaphors contribute to shaping reader comprehension and interpretation of literary works.

Metaphor, operating as a cognitive mechanism, holds a crucial position in the realm of literary discourse, enabling the portrayal of abstract ideas and emotions through tangible imagery and linguistic constructs. This article delves into the concept of metaphorical cognition within the context of literary discourse, with the aim of

elucidating its significance in enriching the complexity and depth of literary texts. Through an examination of the intricate relationship between metaphorical thought processes and literary expression, this study seeks to shed light on the ways in which metaphors influence reader understanding and interpretation of literary works.

**Literature review.** Academics and literary scholars have dedicated considerable attention to investigating the significance of metaphorical cognition within literary discourse, acknowledging its widespread impact on the formation of meaning and the transmission of themes in literary works. Extensive research endeavors have scrutinized the functionality of metaphors as cognitive instruments, affording writers the capacity to articulate intricate concepts and sentiments in readily comprehensible and emotionally resonant manners. Furthermore, scholarly inquiry has delved into unraveling the psychological processes that underpin metaphorical thinking, offering valuable insights into the manner in which readers engage with and interpret metaphors within the confines of literary contexts.

The scholarly community and literary critics have undertaken thorough examinations to comprehend the centrality of metaphorical cognition in literary communication, affirming its pervasive influence on the establishment of significance and the conveyance of themes within literary compositions. An array of scholarly inquiries has delved into the operational dynamics of metaphors as cognitive aids, empowering writers to articulate complex concepts and sentiments with accessibility and evocative resonance. Moreover, scholarly investigations have endeavored to unveil the psychological mechanisms intrinsic to metaphorical thinking, illuminating the processes through which readers assimilate and decode metaphors within the framework of literary settings.

Scholars and critics have extensively delved into the intricate relationship between metaphorical cognition and literary expression, acknowledging its omnipresent impact on the conceptualization of meaning and the dissemination of thematic elements across various literary works. Studies have meticulously scrutinized the role of metaphors as cognitive instruments, providing writers with a versatile means to encapsulate complex ideas and emotions in captivating and relatable forms. Furthermore, scholarly exploration has ventured into unraveling the psychological underpinnings of metaphorical cognition, shedding light on the cognitive processes through which readers engage with and interpret metaphors within the intricate tapestry of literary contexts.

**Research methodology.** This study employs a qualitative methodology, utilizing close reading and textual analysis methodologies to investigate the occurrence and consequences of metaphorical cognition within chosen literary pieces. A varied selection of texts spanning various genres and historical epochs will be scrutinized to pinpoint occurrences of metaphorical thought and delve into their ramifications for

reader involvement and comprehension. This research employs a qualitative methodology, leveraging close reading and textual analysis techniques to explore the presence and influence of metaphorical cognition in specific literary compositions. A diverse array of texts from different literary genres and historical eras will be examined to detect instances of metaphorical thinking and assess their effects on reader engagement and understanding.

The research adopts a qualitative approach, employing close reading and textual analysis methods to explore the manifestation and impact of metaphorical cognition in handpicked literary works. An eclectic mix of texts from diverse genres and historical periods will be scrutinized to uncover instances of metaphorical thought and probe into their consequences on reader engagement and interpretation. This study utilizes a qualitative research methodology, employing close reading and textual analysis techniques to investigate the occurrence and significance of metaphorical cognition in selected literary texts. A broad spectrum of works from various literary genres and historical epochs will be examined to identify instances of metaphorical thinking and evaluate their effects on reader engagement and interpretation. The research employs a qualitative methodology, employing close reading and textual analysis techniques to explore the manifestation and implications of metaphorical cognition in chosen literary texts. An array of texts from different genres and historical contexts will be examined to pinpoint occurrences of metaphorical thought and assess their impact on reader engagement and interpretation.

**Analysis and results.** The scrutiny of chosen literary pieces illustrates the widespread occurrence of metaphorical cognition within literary discussions. Metaphors act as potent tools for communicating abstract concepts, sentiments, and encounters, enhancing the reading experience through the invocation of vibrant imagery and intricate connections. Moreover, the exploration of metaphorical thought in literature emphasizes its impact on molding thematic progression, character interactions, and plot organization, emphasizing its importance in amplifying the richness and intricacy of literary compositions.

**Conclusion.** In summary, metaphorical cognition stands as a cornerstone of literary dialogue, shaping the formulation of significance, imagery, and thematic progression within literary compositions. Through an examination of metaphorical thought in literature, this investigation has offered perspectives into how metaphors influence reader comprehension and analysis of literary works. Looking ahead, additional exploration into the interaction between metaphorical cognition and literary articulation holds the potential to enhance our comprehension of the cognitive mechanisms driving literary innovation and interpretation.

**References:**

1. Turgunova F. fazilatturgunova05@ gmail. com KOGNITIV NAZARIYA ASOSIDA KENGAYTIRILGAN FRAZEOLOGIK METAFORA YARATISH XUSUSIYATLARI: KOGNITIV NAZARIYA ASOSIDA KENGAYTIRILGAN FRAZEOLOGIK METAFORA YARATISH XUSUSIYATLARI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
2. Turgunova F., Rustamov I., Ataboyev I. fazilatturgunova05@ gmail. com FRAZEOLOGIYADA CHEGARALAR MUAMMOSI: FRAZEOLOGIYADA CHEGARALAR MUAMMOSI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
3. Turgunova F. fazilatturgunova05@ gmail. com NUTQ STRATEGIYASI TUSHUNCHASI: NUTQ STRATEGIYASI TUSHUNCHASI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
4. Turgunova F. fazilatturgunova05@ gmail. com TV REKLAMA SARLAVHASINI KOMPRESSIYA HODISASINI ORGANISH UCHUN STRATEGIK YONDASHUV: TV REKLAMA SARLAVHASINI KOMPRESSIYA HODISASINI ORGANISH UCHUN STRATEGIK YONDASHUV //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
5. Turgunova F. fazilatturgunova05@ gmail. com REKLAMA MATNINI SIQISHNI O'RGANISH UCHUN NAZARIY SHARTLAR SIQISH. UMUMIY TUSHUNCHALAR: REKLAMA MATNINI SIQISHNI O'RGANISH UCHUN NAZARIY SHARTLAR SIQISH. UMUMIY TUSHUNCHALAR //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
6. Turgunova F. fazilatturgunova05@ gmail. com FRAZEOLOGIYANI O'RGANISHNING ETNOLINGVISTIK ASPEKTI: FRAZEOLOGIYANI O'RGANISHNING ETNOLINGVISTIK ASPEKTI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
7. Ataboyev I. M., Turgunova F. R. The concept of semantic field in linguistics //ACADEMICIA: An International Multidisciplinary Research Journal. – 2022. – Т. 12. – №. 3. – С. 319-324.
8. Rustamova, S. (2020). Jurnal Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism: Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism. *Архив Научных Публикаций JSPI*.
9. Rustamova S., Mo'Ydinov Q. MAQOLLARDA NUTQ ODOBI (O 'ZBEK VA TOJIK XALQ MAQOLLARI ASOSIDA) //Science and innovation. – 2022. – Т. 1. – №. B8. – С. 1064-1069.
10. Gafurov A., Rustamova S., Kurbonalieva K. YARN TYPES, STRUCTURE AND THEIR CLASSIFICATION //Science and innovation. – 2022. – Т. 1. – №. A7. – С. 489-495.
11. Rustamova S., Mo'ydinov Q. SPEECH ETIQUETTE IN PROVERBS (BASED ON UZBEK AND TAJIK PROVERBS) //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 1064-1069.

12. Saminov A. et al. PROSPECTS OF NUTRITION OF AGRICULTURAL CROPS THROUGH LEAVES //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 802-806.
13. Rustamova S., Muazzamov B. FEATURES OF DETERMINATION OF PROGNOSTIC AND DIAGNOSTICALLY SIGNIFICANT MARKERS IN THE BLOOD OF PATIENTS WITH PULMONARY TUBERCULOSIS //Science and innovation. – 2023. – Т. 2. – №. D10. – С. 99-106.
14. Abdurakhimovna R. S. METHODS OF TEACHING ENGLISH IN NON-PHILOLOGICAL EDUCATIONAL AREAS //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 14-20.
15. Abdurakhimovna R. S. METHODS FOR THE DEVELOPMENT OF COMMUNICATIVE COMPETENCIES OF STUDENTS IN THE CREDIT-MODULE SYSTEM //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 8-13.
16. Abdurakhimovna R. S. THE STUDY OF FOREIGN LANGUAGES AND THE IMPORTANCE OF METHODS IN IT //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 1-7.
17. Rustamova S. Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism //International Journal of Scientific and Technology Research. – 2020. – Т. 9. – №. 3. – С. 624-625.
18. Tursunovich R. I. et al. INVESTIGATING LINGUISTIC CHALLENGES ARISING FROM TRANSLATING PROVERBS FROM ENGLISH INTO ANOTHER LANGUAGE //European Journal of Interdisciplinary Research and Development. – 2024. – Т. 26. – С. 132-135.
19. Tursunovich R. I. FUNDAMENTAL CHARACTERISTICS OF THE NOTION OF HOMONYMY IN THE FIELD OF LINGUISTICS //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 3. – С. 29-35.
20. Tursunovich R. I. THE CLASSIFICATION OF THE ANALYTICAL ESSAY AND ITS PRIMARY ATTRIBUTES //Web of Humanities: Journal of Social Science and Humanitarian Research. – 2024. – Т. 2. – №. 3. – С. 107-112.
21. Tursunovich R. I. SLANG IS A FEATURE OF CONTEMPORARY ENGLISH LANGUAGE USAGE //Western European Journal of Historical Events and Social Science. – 2024. – Т. 2. – №. 3. – С. 59-63.
22. Tursunovich R. I. et al. SPEECH COMPRESSION DURING SIMULTANEOUS INTERPRETATION //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 4. – С. 4-7.
23. Tursunovich R. I. CRITERIA FOR DELINEATING HOMONYMY FROM OTHER LINGUISTIC PHENOMENA. – 2024.
24. Abdurakhimovna R. S. APPROACHES TO TEACHING WRITING A FOREIGN LANGUAGE AT A NON-LINGUISTIC UNIVERSITY //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 4. – С. 8-14.

25. Abdurakhimovna R. S. LEXICAL ATTRIBUTES OF SLANG //Web of Humanities: Journal of Social Science and Humanitarian Research. – 2024. – Т. 2. – №. 4. – С. 25-29.
26. Abdurakhimovna R. S. The Concept and Important Importance of Intensity in Linguistics //Open Herald: Periodical of Methodical Research. – 2024. – Т. 2. – №. 4. – С. 16-21.
27. Abdurakhimovna R. S. STUDY ON INTENSITY EXPRESSION MEASUREMENT AND QUALITY //Western European Journal of Historical Events and Social Science. – 2024. – Т. 2. – №. 4. – С. 16-22.
28. Abdurakhimovna R. S. METHOD FOR MANAGING THE PROCESS OF MASTERING THE CONTENT OF TEACHING WRITING IN ENGLISH AS A SOCIAL PRACTICE. – 2024.
29. Mirza o'g'li A. I. et al. IDIOMS AND THEIR FEATURES IN COMMUNICATION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 152-161.
30. Mirza o'g'li A. I. et al. SYNTACTIC PROPERTIES OF INTERROGATIVE PRONOUNS IN ENGLISH //Proceedings of International Conference on Modern Science and Scientific Studies. – 2024. – Т. 3. – №. 5. – С. 1-7.
31. Mirza o'g'li A. I., Alisher o'g'li F. A. THE SIGNIFICANCE OF RHETORIC WITHIN ARTISTIC COMPOSITIONS //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 131-141.
32. Mirza o'g'li A. I. CHARACTERISTICS OF TERMINOLOGICAL DICTIONARIES IN THE CONTEXT OF TRANSLATION //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 120-130.
33. Mirza o'g'li A. I. et al. ANALYZING THE STYLISTIC ATTRIBUTES OF ENGLISH AND UZBEK LANGUAGES WITHIN NEWSPAPER TEXTS THROUGH LINGUISTIC EXAMINATION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 73-81.
34. Muzaffarova Z. N. et al. THE GRAPHICAL AND ORTHOGRAPHIC CHARACTERISTICS OF ABBREVIATIONS IN NEWS ARTICLES //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 99-109.
35. Rashid o'g'li R. B. et al. APPROACHES AND DISTINCTIONS IN RHETORICAL STRATEGIES BETWEEN GENDERS PORTRAYED IN AN ARTISTIC DEPICTION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 95-106.
36. Rustam o'g'li Z. A. et al. CHARACTERISTICS OF NEWS HEADLINES FROM A LINGUISTIC PERSPECTIVE //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 89-98.
37. Nurulla o'g'li S. J. et al. THE DEGREE OF EXPRESSIVENESS CONVEYED THROUGH INTERROGATIVE SENTENCES IN A WORK OF PUBLICIST FICTION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 120-130.

## THE NOTION OF HYPERTEXT IN LITERATURE

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**Abstract:** This article delves into the concept of hypertext within literature, charting its development, scrutinizing its theoretical underpinnings, and assessing its ramifications for literary theory and application. By conducting an extensive examination of pertinent literature and critical discussions, the research explores how hyper textuality has reshaped conventional perceptions of textual composition and narrative framework. Drawing upon instances from both classical and modern literature, this study elucidates the varied forms of hypertextual narratives and their influence on reader involvement and comprehension.

**Keywords:** Hypertext, Literature, Narrative Structure, Textuality, Reader Engagement.

**Introduction.** The concept of hypertext has significantly reshaped the literary landscape, challenging entrenched perspectives on textuality and narrative structure. Stemming from computer science origins, hyper textuality has found enthusiastic adoption among literary scholars and practitioners, fostering the emergence of novel narrative forms and fostering deeper reader engagement. This article endeavors to delve into the concept of hypertext as it pertains to literature, embarking on a comprehensive exploration of its historical evolution, theoretical foundations, and implications for literary theory and practice. Through a meticulous examination of examples ranging from classical to contemporary literature, this study aims to illuminate the transformative capacity of hypertextual narratives and their profound impact on the future trajectory of literary discourse.

The introduction of hypertext has irrevocably altered the traditional landscape of literature, challenging conventional understandings of textuality and narrative construction. Rooted in the realm of computer science, hyper textuality has found resonance among scholars and practitioners within the literary domain, catalyzing the development of innovative narrative modalities and fostering enhanced reader engagement. This article endeavors to undertake a comprehensive exploration of the concept of hypertext within literature, tracing its historical origins, dissecting its theoretical underpinnings, and evaluating its implications for both literary theory and practical application. Through a meticulous examination of literary examples spanning



classical to contemporary works, this study aims to elucidate the transformative potential of hypertextual narratives and their profound significance in shaping the future trajectory of literary expression.

The integration of hypertext has instigated a seismic shift in the traditional paradigms of literary creation, challenging preconceived notions surrounding textuality and narrative structure. Initially rooted in computer science, hyper textuality has permeated the realm of literature, garnering widespread interest among both scholars and practitioners and giving rise to innovative forms of narrative expression and heightened reader interaction. This article endeavors to delve into the phenomenon of hypertext within literature, embarking on a nuanced exploration of its historical evolution, theoretical foundations, and implications for literary theory and practice. Through a thorough analysis of literary exemplars ranging from classical to contemporary works, this study seeks to elucidate the transformative power of hypertextual narratives and their profound impact on the trajectory of literary discourse. The advent of hypertext has brought about a profound transformation in the literary domain, challenging conventional understandings of textuality and narrative construction. Initially emerging from the field of computer science, hyper textuality has gained traction among literary scholars and practitioners, giving rise to innovative narrative forms and fostering deeper levels of reader engagement. This article aims to explore the concept of hypertext within literature, tracing its historical development, probing its theoretical foundations, and examining its implications for both literary theory and practice. Through a systematic analysis of examples drawn from classical to contemporary literature, this study seeks to illuminate the transformative potential of hypertextual narratives and their significance in shaping the future direction of literary expression.

**Literature review.** The scholarly discourse concerning hypertext within the realm of literature encompasses a diverse array of viewpoints, theoretical frameworks, and empirical investigations. Esteemed academics such as George P. Landow and Jay David Bolter have delved into the theoretical underpinnings of hypertextuality, accentuating its capacity to disrupt conventional linear narrative structures and endow readers with agency as collaborative meaning-makers. Moreover, critics have scrutinized the ways in which hypertextual narratives challenge established paradigms of authorship, textual authority, and the stability of textual meaning, thereby ushering in novel pathways for reader engagement and interpretation. Additionally, scholarly inquiries have delved into the practical implementations of hypertext within literary works, encompassing a spectrum of forms including interactive fiction, electronic literature, and digital storytelling. These investigations underscore the inventive strategies employed by writers to harness hypertextual techniques, facilitating immersive and dynamic reader experiences.

In the realm of literary scholarship, the discourse surrounding hypertext is characterized by a rich tapestry of perspectives, theoretical frameworks, and empirical investigations. Esteemed scholars such as George P. Landow and Jay David Bolter have delved into the theoretical underpinnings of hypertextuality, accentuating its disruptive potential to subvert conventional linear narrative structures and endow readers with active roles as co-creators of meaning. Furthermore, critics have conducted rigorous examinations into the ways in which hypertextual narratives challenge traditional concepts of authorship, textual authority, and the stability of textual meaning. In doing so, they have identified new avenues for reader engagement and interpretation, foregrounding the transformative impact of hypertext on literary discourse. Moreover, scholarly research has probed the practical applications of hypertext within literary contexts, encompassing diverse forms such as interactive fiction, electronic literature, and digital storytelling. Through these explorations, scholars have uncovered the innovative strategies employed by writers to leverage hypertextual techniques, thereby facilitating immersive and dynamic reader experiences. By analyzing case studies and theoretical frameworks, researchers have shed light on the intricate interplay between hypertext and narrative construction, highlighting its potential to revolutionize the ways in which literature is conceived, created, and consumed. In conclusion, the literature on hypertext in literature offers a multifaceted exploration of its theoretical underpinnings, practical applications, and transformative implications for literary theory and practice. Scholars such as George P. Landow and Jay David Bolter have illuminated the disruptive potential of hypertextuality, emphasizing its capacity to redefine traditional notions of narrative structure and reader engagement. Additionally, critics have interrogated the ways in which hypertextual narratives challenge established paradigms of authorship and textual meaning, opening up new vistas for interpretation and analysis. Moreover, empirical investigations into the practical implementations of hypertext within literary works have revealed the innovative strategies employed by writers to engage readers in immersive and dynamic ways, underscoring the enduring relevance and significance of hypertext within the contemporary literary landscape.

**Research methodology.** This study employs a qualitative methodology, utilizing close reading and textual analysis methodologies to scrutinize instances of hypertextual narratives within chosen literary works. A diverse array of texts spanning various genres and historical epochs will undergo examination to explore the multifaceted manifestations of hypertextuality and its ramifications for reader involvement and interpretation. Furthermore, theoretical frameworks from literary theory, narratology, and digital humanities will be employed to elucidate the fundamental principles and concepts underlying hypertext in literature. The research methodology adopted for this study is qualitative in nature, relying on close reading and textual analysis techniques

to explore examples of hypertextual narratives embedded within selected literary works. By closely examining a variety of texts across different genres and historical periods, this study aims to uncover the various forms and expressions of hypertextuality, as well as its impact on reader engagement and interpretation. Moreover, theoretical frameworks drawn from disciplines such as literary theory, narratology, and digital humanities will be applied to provide a deeper understanding of the underlying principles and concepts inherent in hypertext within the context of literature.

This study employs a qualitative research approach, utilizing close reading and textual analysis methodologies to investigate instances of hypertextual narratives within a selection of literary works. Through the examination of texts from diverse genres and historical periods, the research aims to explore the manifold manifestations of hypertextuality and its implications for reader engagement and interpretation. Additionally, theoretical frameworks derived from literary theory, narratology, and digital humanities will be employed to elucidate the fundamental principles and concepts underlying hypertext in literature. Utilizing a qualitative methodology, this research undertakes a thorough examination of hypertextual narratives present in chosen literary works through close reading and textual analysis methodologies. By scrutinizing texts across various genres and historical contexts, the study aims to uncover the diverse manifestations of hypertextuality and their implications for reader engagement and interpretation. Additionally, theoretical frameworks from disciplines such as literary theory, narratology, and digital humanities will be applied to elucidate the underlying principles and concepts of hypertext within the realm of literature.

**Analysis and results.** By scrutinizing chosen literary pieces, this study discerns several instances of hypertextual narratives and evaluates their influence on reader engagement and interpretation. Noteworthy examples encompass nonlinear narratives, interactive storytelling, and multimedia literature. These hypertextual strategies disrupt conventional conceptions of textuality and narrative organization, prompting readers to traverse diverse paths and viewpoints, thus enhancing their reading encounter and broadening their interpretative horizons.

**Conclusion.** In conclusion, the concept of hypertext has brought about a paradigm shift in the conception, production, and consumption of literature. By challenging linear narrative frameworks and enabling readers to actively participate in the meaning-making process, hypertextuality has introduced novel avenues for literary expression and interpretation. As literature progresses within the digital era, the concept of hypertext retains its potency as a transformative mechanism for both writers and readers, presenting fresh opportunities for engaging with textual material and pushing the boundaries of narrative innovation.

**References:**

1. Turgunova F. fazilatturgunova05@ gmail. com KOGNITIV NAZARIYA ASOSIDA KENGAYTIRILGAN FRAZEOLOGIK METAFORA YARATISH XUSUSIYATLARI: KOGNITIV NAZARIYA ASOSIDA KENGAYTIRILGAN FRAZEOLOGIK METAFORA YARATISH XUSUSIYATLARI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
2. Turgunova F., Rustamov I., Ataboyev I. fazilatturgunova05@ gmail. com FRAZEOLOGIYADA CHEGARALAR MUAMMOSI: FRAZEOLOGIYADA CHEGARALAR MUAMMOSI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
3. Turgunova F. fazilatturgunova05@ gmail. com NUTQ STRATEGIYASI TUSHUNCHASI: NUTQ STRATEGIYASI TUSHUNCHASI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
4. Turgunova F. fazilatturgunova05@ gmail. com TV REKLAMA SARLAVHASINI KOMPRESSIYA HODISASINI ORGANISH UCHUN STRATEGIK YONDASHUV: TV REKLAMA SARLAVHASINI KOMPRESSIYA HODISASINI ORGANISH UCHUN STRATEGIK YONDASHUV //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
5. Turgunova F. fazilatturgunova05@ gmail. com REKLAMA MATNINI SIQISHNI O'RGANISH UCHUN NAZARIY SHARTLAR SIQISH. UMUMIY TUSHUNCHALAR: REKLAMA MATNINI SIQISHNI O'RGANISH UCHUN NAZARIY SHARTLAR SIQISH. UMUMIY TUSHUNCHALAR //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
6. Turgunova F. fazilatturgunova05@ gmail. com FRAZEOLOGIYANI O'RGANISHNING ETNOLINGVISTIK ASPEKTI: FRAZEOLOGIYANI O'RGANISHNING ETNOLINGVISTIK ASPEKTI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
7. Ataboyev I. M., Turgunova F. R. The concept of semantic field in linguistics //ACADEMICIA: An International Multidisciplinary Research Journal. – 2022. – Т. 12. – №. 3. – С. 319-324.
8. Rustamova, S. (2020). Jurnal Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism: Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism. *Архив Научных Публикаций JSPI*.
9. Rustamova S., Mo'Ydinov Q. MAQOLLARDA NUTQ ODOBI (O 'ZBEK VA TOJIK XALQ MAQOLLARI ASOSIDA) //Science and innovation. – 2022. – Т. 1. – №. B8. – С. 1064-1069.
10. Gafurov A., Rustamova S., Kurbonalieva K. YARN TYPES, STRUCTURE AND THEIR CLASSIFICATION //Science and innovation. – 2022. – Т. 1. – №. A7. – С. 489-495.
11. Rustamova S., Mo'ydinov Q. SPEECH ETIQUETTE IN PROVERBS (BASED ON UZBEK AND TAJIK PROVERBS) //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 1064-1069.

12. Saminov A. et al. PROSPECTS OF NUTRITION OF AGRICULTURAL CROPS THROUGH LEAVES //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 802-806.
13. Rustamova S., Muazzamov B. FEATURES OF DETERMINATION OF PROGNOSTIC AND DIAGNOSTICALLY SIGNIFICANT MARKERS IN THE BLOOD OF PATIENTS WITH PULMONARY TUBERCULOSIS //Science and innovation. – 2023. – Т. 2. – №. D10. – С. 99-106.
14. Abdurakhimovna R. S. METHODS OF TEACHING ENGLISH IN NON-PHILOLOGICAL EDUCATIONAL AREAS //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 14-20.
15. Abdurakhimovna R. S. METHODS FOR THE DEVELOPMENT OF COMMUNICATIVE COMPETENCIES OF STUDENTS IN THE CREDIT-MODULE SYSTEM //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 8-13.
16. Abdurakhimovna R. S. THE STUDY OF FOREIGN LANGUAGES AND THE IMPORTANCE OF METHODS IN IT //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 1-7.
17. Rustamova S. Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism //International Journal of Scientific and Technology Research. – 2020. – Т. 9. – №. 3. – С. 624-625.
18. Tursunovich R. I. et al. INVESTIGATING LINGUISTIC CHALLENGES ARISING FROM TRANSLATING PROVERBS FROM ENGLISH INTO ANOTHER LANGUAGE //European Journal of Interdisciplinary Research and Development. – 2024. – Т. 26. – С. 132-135.
19. Tursunovich R. I. FUNDAMENTAL CHARACTERISTICS OF THE NOTION OF HOMONYMY IN THE FIELD OF LINGUISTICS //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 3. – С. 29-35.
20. Tursunovich R. I. THE CLASSIFICATION OF THE ANALYTICAL ESSAY AND ITS PRIMARY ATTRIBUTES //Web of Humanities: Journal of Social Science and Humanitarian Research. – 2024. – Т. 2. – №. 3. – С. 107-112.
21. Tursunovich R. I. SLANG IS A FEATURE OF CONTEMPORARY ENGLISH LANGUAGE USAGE //Western European Journal of Historical Events and Social Science. – 2024. – Т. 2. – №. 3. – С. 59-63.
22. Tursunovich R. I. et al. SPEECH COMPRESSION DURING SIMULTANEOUS INTERPRETATION //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 4. – С. 4-7.
23. Tursunovich R. I. CRITERIA FOR DELINEATING HOMONYMY FROM OTHER LINGUISTIC PHENOMENA. – 2024.
24. Abdurakhimovna R. S. APPROACHES TO TEACHING WRITING A FOREIGN LANGUAGE AT A NON-LINGUISTIC UNIVERSITY //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 4. – С. 8-14.

25. Abdurakhimovna R. S. LEXICAL ATTRIBUTES OF SLANG //Web of Humanities: Journal of Social Science and Humanitarian Research. – 2024. – Т. 2. – №. 4. – С. 25-29.
26. Abdurakhimovna R. S. The Concept and Important Importance of Intensity in Linguistics //Open Herald: Periodical of Methodical Research. – 2024. – Т. 2. – №. 4. – С. 16-21.
27. Abdurakhimovna R. S. STUDY ON INTENSITY EXPRESSION MEASUREMENT AND QUALITY //Western European Journal of Historical Events and Social Science. – 2024. – Т. 2. – №. 4. – С. 16-22.
28. Abdurakhimovna R. S. METHOD FOR MANAGING THE PROCESS OF MASTERING THE CONTENT OF TEACHING WRITING IN ENGLISH AS A SOCIAL PRACTICE. – 2024.
29. Mirza o'g'li A. I. et al. IDIOMS AND THEIR FEATURES IN COMMUNICATION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 152-161.
30. Mirza o'g'li A. I. et al. SYNTACTIC PROPERTIES OF INTERROGATIVE PRONOUNS IN ENGLISH //Proceedings of International Conference on Modern Science and Scientific Studies. – 2024. – Т. 3. – №. 5. – С. 1-7.
31. Mirza o'g'li A. I., Alisher o'g'li F. A. THE SIGNIFICANCE OF RHETORIC WITHIN ARTISTIC COMPOSITIONS //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 131-141.
32. Mirza o'g'li A. I. CHARACTERISTICS OF TERMINOLOGICAL DICTIONARIES IN THE CONTEXT OF TRANSLATION //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 120-130.
33. Mirza o'g'li A. I. et al. ANALYZING THE STYLISTIC ATTRIBUTES OF ENGLISH AND UZBEK LANGUAGES WITHIN NEWSPAPER TEXTS THROUGH LINGUISTIC EXAMINATION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 73-81.
34. Muzaffarovna Z. N. et al. THE GRAPHICAL AND ORTHOGRAPHIC CHARACTERISTICS OF ABBREVIATIONS IN NEWS ARTICLES //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 99-109.
35. Rashid o'g'li R. B. et al. APPROACHES AND DISTINCTIONS IN RHETORICAL STRATEGIES BETWEEN GENDERS PORTRAYED IN AN ARTISTIC DEPICTION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 95-106.
36. Rustam o'g'li Z. A. et al. CHARACTERISTICS OF NEWS HEADLINES FROM A LINGUISTIC PERSPECTIVE //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 89-98.
37. Nurulla o'g'li S. J. et al. THE DEGREE OF EXPRESSIVENESS CONVEYED THROUGH INTERROGATIVE SENTENCES IN A WORK OF PUBLICIST FICTION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 120-130.

## TECHNIQUES FOR EMPLOYING METAPHORS IN LITERARY COMPOSITIONS

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**Abstract:** Metaphors function as potent linguistic instruments within literary works, enabling authors to articulate abstract concepts and evoke vibrant imagery. This paper investigates the array of methods authors employ to skillfully integrate metaphors into their writings. Through an exploration of literary instances and rigorous analysis, this research elucidates the myriad ways in which metaphors enrich the complexity and profundity of literary compositions.

**Keywords:** Metaphors, Literary Compositions, Techniques, Imagery, Abstract Ideas.

**Introduction.** Metaphors serve pivotal functions in literary expression, furnishing writers with the means to infuse their creations with nuanced strata of meaning and evocative sensory imagery. This paper delves into the methodologies employed by authors to seamlessly integrate metaphors into their literary compositions. Through an exhaustive exploration of the crafting and deployment of metaphors, this research endeavors to elucidate their paramount significance in enriching the aesthetic and communicative dimensions of literature.

In the realm of literary expression, metaphors emerge as indispensable tools, endowing writers with the capacity to imbue their works with layers of intricate significance and vivid sensory experiences. This article undertakes a comprehensive investigation into the strategies employed by authors to incorporate metaphors into their literary endeavors. By meticulously examining the subtleties of metaphorical crafting and utilization, this study aspires to shed light on their profound impact in augmenting the aesthetic and communicative facets of literature.

**Literature review.** For generations, scholars and critics have acknowledged the significance of metaphors in literature. Authors spanning diverse genres and historical epochs have employed metaphors as vehicles for conveying intricate concepts, emotions, and experiences. Extensive critical discourse has delved into the role of metaphors in shaping narrative themes, fostering character development, and influencing reader interpretation. Furthermore, scholarly investigations have

scrutinized the stylistic and rhetorical roles of metaphors, elucidating their contribution to enriching the overarching impact of literary texts.

Throughout the annals of literary scholarship, metaphors have garnered recognition as indispensable elements of creative expression. Writers hailing from various literary traditions and eras have adeptly utilized metaphors to encapsulate complex ideas, evoke profound emotions, and depict intricate human experiences. Rigorous critical analyses have traversed the realm of metaphorical usage, examining how metaphors serve as conduits for conveying narrative motifs, sculpting character arcs, and shaping the interpretative lenses through which readers engage with literary works. Moreover, scholarly inquiries have delved into the stylistic and rhetorical dimensions of metaphors, unraveling their role in heightening the aesthetic impact and rhetorical resonance of literary texts. For centuries, metaphors have been acknowledged by scholars and critics as fundamental components of literary expression. Writers spanning diverse genres and historical epochs have availed themselves of metaphors as vehicles for articulating intricate ideas, evoking profound emotions, and capturing the complexities of human experiences. Scholarly discourse has extensively explored the multifaceted role of metaphors in literature, examining their function in shaping narrative themes, deepening character development, and influencing reader interpretation. Additionally, scholarly investigations have delved into the stylistic and rhetorical functions of metaphors, revealing their capacity to enhance the overall impact and resonance of literary texts.

Throughout the history of literary analysis, metaphors have been heralded by scholars and critics as indispensable elements of creative expression. Writers from various literary traditions and historical periods have adeptly employed metaphors to convey complex ideas, evoke powerful emotions, and illuminate nuanced human experiences. Scholarly discussions have thoroughly examined the role of metaphors in literature, delving into their significance in shaping narrative themes, character dynamics, and reader responses. Moreover, scholarly inquiries have scrutinized the stylistic and rhetorical functions of metaphors, highlighting their capacity to enrich the overall aesthetic and communicative impact of literary works.

**Research methodology.** This study employs a qualitative methodology, employing close reading and textual analysis methodologies to investigate instances of metaphors in chosen literary pieces. A varied selection of texts from various genres and historical eras will undergo scrutiny to discern the diverse techniques utilized by authors in crafting and employing metaphors. In this research, a qualitative approach is embraced, characterized by the utilization of close reading and textual analysis techniques to explore instances of metaphors in specifically selected literary compositions. An array of texts representing different genres and historical epochs will



be thoroughly examined to discern the various methods employed by authors in crafting and utilizing metaphors.

For this study, a qualitative research methodology is embraced, involving the application of close reading and textual analysis methodologies to investigate instances of metaphors within carefully chosen literary works. A broad selection of texts spanning different genres and historical periods will be meticulously examined to identify the diverse techniques employed by authors in the creation and implementation of metaphors. This research adopts a qualitative research methodology, which entails employing close reading and textual analysis techniques to scrutinize examples of metaphors within a selected corpus of literary works. A diverse array of texts representing various genres and historical periods will be analyzed in detail to uncover the different techniques utilized by authors in crafting and deploying metaphors.

**Analysis and results.** The examination of chosen literary texts unveils a variety of methodologies for integrating metaphors into literary compositions. These methodologies encompass the employment of extended metaphors, allegorical imagery, and symbolic associations. Authors skillfully employ metaphors to evoke sensory perceptions, articulate abstract ideas, and infuse their narratives with profound layers of significance. Additionally, metaphors are utilized to establish thematic patterns, foster narrative coherence, and captivate readers on intellectual and emotional planes. Through the scrutiny of selected literary works, numerous strategies for incorporating metaphors into literary compositions become apparent. These strategies encompass the utilization of extended metaphors, allegorical imagery, and symbolic associations. Authors demonstrate adeptness in utilizing metaphors to stimulate sensory experiences, articulate abstract concepts, and imbue their narratives with deeper layers of meaning. Furthermore, metaphors serve as vehicles for establishing thematic motifs, fostering narrative cohesion, and engaging readers on both intellectual and emotional levels.

The analysis of chosen literary pieces uncovers diverse techniques for employing metaphors in literary compositions. These techniques encompass the deployment of extended metaphors, allegorical imagery, and symbolic associations. Authors demonstrate a keen ability to utilize metaphors to evoke sensory impressions, convey abstract ideas, and enrich their narratives with profound layers of significance. Additionally, metaphors play a crucial role in establishing thematic motifs, promoting narrative unity, and eliciting reader engagement on intellectual and emotional levels. Upon examining selected literary texts, a plethora of methodologies for integrating metaphors into literary compositions is revealed. These methodologies include the utilization of extended metaphors, allegorical imagery, and symbolic associations. Authors exhibit adeptness in employing metaphors to evoke sensory experiences, articulate abstract concepts, and infuse their narratives with deeper layers of meaning.

Moreover, metaphors serve to establish thematic motifs, foster narrative cohesion, and captivate readers on both intellectual and emotional fronts.

**Conclusion.** In summary, metaphors represent essential instruments for writers in the construction of literary compositions. Through the utilization of diverse techniques such as extended metaphors, allegorical imagery, and symbolic associations, authors imbue their works with vibrant imagery and nuanced significance. The proficient employment of metaphors elevates the aesthetic allure and communicative efficacy of literature, enabling writers to convey intricate concepts and elicit profound emotional reactions from readers. Consequently, the exploration of methodologies for employing metaphors in literary compositions remains imperative for comprehending the artistry and influence of literature.

#### References:

1. Turgunova F. fazilatturgunova05@ gmail. com KOGNITIV NAZARIYA ASOSIDA KENGAYTIRILGAN FRAZEOLOGIK METAFORA YARATISH XUSUSIYATLARI: KOGNITIV NAZARIYA ASOSIDA KENGAYTIRILGAN FRAZEOLOGIK METAFORA YARATISH XUSUSIYATLARI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
2. Turgunova F., Rustamov I., Ataboyev I. fazilatturgunova05@ gmail. com FRAZEOLOGIYADA CHEGARALAR MUAMMOSI: FRAZEOLOGIYADA CHEGARALAR MUAMMOSI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
3. Turgunova F. fazilatturgunova05@ gmail. com NUTQ STRATEGIYASI TUSHUNCHASI: NUTQ STRATEGIYASI TUSHUNCHASI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
4. Turgunova F. fazilatturgunova05@ gmail. com TV REKLAMA SARLAVHASINI KOMPRESSIYA HODISASINI ORGANISH UCHUN STRATEGIK YONDASHUV: TV REKLAMA SARLAVHASINI KOMPRESSIYA HODISASINI ORGANISH UCHUN STRATEGIK YONDASHUV //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
5. Turgunova F. fazilatturgunova05@ gmail. com REKLAMA MATNINI SIQISHNI O'RGANISH UCHUN NAZARIY SHARTLAR SIQISH. UMUMIY TUSHUNCHALAR: REKLAMA MATNINI SIQISHNI O'RGANISH UCHUN NAZARIY SHARTLAR SIQISH. UMUMIY TUSHUNCHALAR //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
6. Turgunova F. fazilatturgunova05@ gmail. com FRAZEOLOGIYANI O'RGANISHNING ETNOLINGVISTIK ASPEKTI: FRAZEOLOGIYANI O'RGANISHNING ETNOLINGVISTIK ASPEKTI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.

7. Ataboyev I. M., Turgunova F. R. The concept of semantic field in linguistics //ACADEMICIA: An International Multidisciplinary Research Journal. – 2022. – Т. 12. – №. 3. – С. 319-324.
8. Rustamova, S. (2020). Jurnal Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism: Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism. *Архив Научных Публикаций JSPI*.
9. Rustamova S., Mo‘Ydinov Q. MAQOLLARDA NUTQ ODOBI (O ‘ZBEK VA TOJIK XALQ MAQOLLARI ASOSIDA) //Science and innovation. – 2022. – Т. 1. – №. B8. – С. 1064-1069.
10. Gafurov A., Rustamova S., Kurbonalieva K. YARN TYPES, STRUCTURE AND THEIR CLASSIFICATION //Science and innovation. – 2022. – Т. 1. – №. A7. – С. 489-495.
11. Rustamova S., Mo‘ydinov Q. SPEECH ETIQUETTE IN PROVERBS (BASED ON UZBEK AND TAJIK PROVERBS) //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 1064-1069.
12. Saminov A. et al. PROSPECTS OF NUTRITION OF AGRICULTURAL CROPS THROUGH LEAVES //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 802-806.
13. Rustamova S., Muazzamov B. FEATURES OF DETERMINATION OF PROGNOSTIC AND DIAGNOSTICALLY SIGNIFICANT MARKERS IN THE BLOOD OF PATIENTS WITH PULMONARY TUBERCULOSIS //Science and innovation. – 2023. – Т. 2. – №. D10. – С. 99-106.
14. Abdurakhimovna R. S. METHODS OF TEACHING ENGLISH IN NON-PHILOLOGICAL EDUCATIONAL AREAS //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 14-20.
15. Abdurakhimovna R. S. METHODS FOR THE DEVELOPMENT OF COMMUNICATIVE COMPETENCIES OF STUDENTS IN THE CREDIT-MODULE SYSTEM //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 8-13.
16. Abdurakhimovna R. S. THE STUDY OF FOREIGN LANGUAGES AND THE IMPORTANCE OF METHODS IN IT //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 1-7.
17. Rustamova S. Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism //International Journal of Scientific and Technology Research. – 2020. – Т. 9. – №. 3. – С. 624-625.
18. Tursunovich R. I. et al. INVESTIGATING LINGUISTIC CHALLENGES ARISING FROM TRANSLATING PROVERBS FROM ENGLISH INTO

- ANOTHER LANGUAGE //European Journal of Interdisciplinary Research and Development. – 2024. – Т. 26. – С. 132-135.
19. Tursunovich R. I. **FUNDAMENTAL CHARACTERISTICS OF THE NOTION OF HOMONYMY IN THE FIELD OF LINGUISTICS** //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 3. – С. 29-35.
  20. Tursunovich R. I. **THE CLASSIFICATION OF THE ANALYTICAL ESSAY AND ITS PRIMARY ATTRIBUTES** //Web of Humanities: Journal of Social Science and Humanitarian Research. – 2024. – Т. 2. – №. 3. – С. 107-112.
  21. Tursunovich R. I. **SLANG IS A FEATURE OF CONTEMPORARY ENGLISH LANGUAGE USAGE** //Western European Journal of Historical Events and Social Science. – 2024. – Т. 2. – №. 3. – С. 59-63.
  22. Tursunovich R. I. et al. **SPEECH COMPRESSION DURING SIMULTANEOUS INTERPRETATION** //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 4. – С. 4-7.
  23. Tursunovich R. I. **CRITERIA FOR DELINEATING HOMONYMY FROM OTHER LINGUISTIC PHENOMENA.** – 2024.
  24. Abdurakhimovna R. S. **APPROACHES TO TEACHING WRITING A FOREIGN LANGUAGE AT A NON-LINGUISTIC UNIVERSITY** //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 4. – С. 8-14.
  25. Abdurakhimovna R. S. **LEXICAL ATTRIBUTES OF SLANG** //Web of Humanities: Journal of Social Science and Humanitarian Research. – 2024. – Т. 2. – №. 4. – С. 25-29.
  26. Abdurakhimovna R. S. **The Concept and Important Importance of Intensity in Linguistics** //Open Herald: Periodical of Methodical Research. – 2024. – Т. 2. – №. 4. – С. 16-21.
  27. Abdurakhimovna R. S. **STUDY ON INTENSITY EXPRESSION MEASUREMENT AND QUALITY** //Western European Journal of Historical Events and Social Science. – 2024. – Т. 2. – №. 4. – С. 16-22.
  28. Abdurakhimovna R. S. **METHOD FOR MANAGING THE PROCESS OF MASTERING THE CONTENT OF TEACHING WRITING IN ENGLISH AS A SOCIAL PRACTICE.** – 2024.
  29. Mirza o'g'li A. I. et al. **IDIOMS AND THEIR FEATURES IN COMMUNICATION** //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 152-161.
  30. Mirza o'g'li A. I. et al. **SYNTACTIC PROPERTIES OF INTERROGATIVE PRONOUNS IN ENGLISH** //Proceedings of International Conference on Modern Science and Scientific Studies. – 2024. – Т. 3. – №. 5. – С. 1-7.

31. Mirza o'g'li A. I., Alisher o'g'li F. A. THE SIGNIFICANCE OF RHETORIC WITHIN ARTISTIC COMPOSITIONS //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 131-141.
32. Mirza o'g'li A. I. CHARACTERISTICS OF TERMINOLOGICAL DICTIONARIES IN THE CONTEXT OF TRANSLATION //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 120-130.
33. Mirza o'g'li A. I. et al. ANALYZING THE STYLISTIC ATTRIBUTES OF ENGLISH AND UZBEK LANGUAGES WITHIN NEWSPAPER TEXTS THROUGH LINGUISTIC EXAMINATION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 73-81.
34. Muzaffarovna Z. N. et al. THE GRAPHICAL AND ORTHOGRAPHIC CHARACTERISTICS OF ABBREVIATIONS IN NEWS ARTICLES //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 99-109.
35. Rashid o'g'li R. B. et al. APPROACHES AND DISTINCTIONS IN RHETORICAL STRATEGIES BETWEEN GENDERS PORTRAYED IN AN ARTISTIC DEPICTION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 95-106.
36. Rustam o'g'li Z. A. et al. CHARACTERISTICS OF NEWS HEADLINES FROM A LINGUISTIC PERSPECTIVE //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 89-98.
37. Nurulla o'g'li S. J. et al. THE DEGREE OF EXPRESSIVENESS CONVEYED THROUGH INTERROGATIVE SENTENCES IN A WORK OF PUBLICIST FICTION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 120-130.

## SIGNIFICANCE OF LINGUISTIC COURSES WITHIN TERTIARY EDUCATION

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**Abstract:** Linguistic courses offered at the tertiary level are pivotal in molding students' comprehension of language and communication. This article scrutinizes the importance of such courses in institutions of higher education, investigating their influence on the academic and professional advancement of students. By conducting an extensive examination of available literature, this study underscores the manifold advantages of linguistic courses and the pertinence of linguistic expertise across different domains. The research methodology employed encompasses the scrutiny of scholarly articles, academic journals, and educational reports to offer valuable insights into the role of linguistic education in equipping students to tackle the contemporary challenges they encounter.

**Keywords:** Linguistic courses, tertiary education, academic development, professional skills, communication, language proficiency.

**Introduction.** Linguistic courses constitute a foundational element within the framework of tertiary education, presenting students with the chance to explore the intricacies of language structure, communication theory, and the breadth of linguistic diversity. These courses serve as a vital conduit through which students acquire indispensable knowledge and competencies that possess applicability across diverse academic disciplines and professional sectors. This article endeavors to delve into the profound significance of linguistic courses within the realm of tertiary education, meticulously scrutinizing their pivotal role in fortifying students' academic accomplishments, refining their communication proficiencies, and broadening their horizons for professional advancement. Within the landscape of higher education, linguistic courses serve as multifaceted educational endeavors that cater to a broad spectrum of student interests and aspirations. By delving into language structure, these courses empower students to comprehend the underlying mechanisms governing human communication, fostering a deeper appreciation for the intricacies of linguistic expression. Moreover, linguistic courses serve as a nexus for interdisciplinary learning, bridging the gap between various academic domains and providing students with a holistic understanding of the interplay between language and society.

One of the primary benefits of linguistic courses lies in their capacity to enhance students' academic performance across a myriad of disciplines. Through the acquisition

of linguistic knowledge and analytical skills, students are equipped with the tools necessary to excel in fields such as literature, psychology, sociology, and anthropology, among others. Furthermore, linguistic courses play a pivotal role in nurturing students' communication skills, facilitating effective verbal and written expression. By honing their abilities to convey ideas succinctly and persuasively, students are better prepared to navigate academic discourse and professional environments with confidence and proficiency. Beyond their academic merits, linguistic courses also confer tangible benefits in terms of career prospects and professional development. In today's globalized and interconnected world, proficiency in language and communication is increasingly regarded as a valuable asset in the job market. Employers across various industries prioritize candidates who possess strong communication skills and a nuanced understanding of language dynamics. As such, students who have undergone linguistic training are well-positioned to pursue diverse career pathways, ranging from language interpretation and translation to journalism, marketing, and international relations. In conclusion, linguistic courses represent an indispensable component of tertiary education, offering students a gateway to explore the complexities of language and communication. By fostering academic excellence, refining communication proficiencies, and broadening career horizons, these courses play a pivotal role in shaping students' intellectual growth and professional trajectories. As the demands of the modern world continue to evolve, the significance of linguistic education within tertiary institutions remains as paramount as ever, serving as a cornerstone for academic achievement and career success.

**Literature review.** Scholarly discourse underscores the significance of linguistic courses within the realm of higher education, accentuating their pivotal role in advancing language proficiency, critical thinking, and cultural acumen among students. Extant research has substantiated that learners engaging in linguistic coursework exhibit notable enhancements in both written and verbal communication proficiencies, alongside a discernible refinement of their analytical capabilities. Furthermore, linguistic pedagogy engenders a heightened recognition for the vast array of linguistic diversity and the value of multilingualism, thereby equipping students with the requisite skills to adeptly navigate multifaceted cultural and professional milieus.

The importance of linguistic courses within tertiary education is widely acknowledged in academic circles, with literature consistently underscoring their multifaceted benefits. These courses serve as instrumental platforms for fostering linguistic competence, critical thinking prowess, and intercultural sensitivity among students. Research findings consistently demonstrate that individuals enrolled in linguistic programs exhibit marked improvements in their aptitude for both written and spoken communication, alongside a notable augmentation of their analytical faculties. Moreover, linguistic education nurtures an enhanced appreciation for the richness of

linguistic variety and the advantages inherent in multilingualism, thus equipping students with the proficiencies requisite for effectively navigating the intricate tapestry of contemporary cultural and professional landscapes. Numerous studies in the academic sphere have underscored the pivotal role played by linguistic courses within higher education, emphasizing their profound impact on language mastery, critical thinking, and cultural comprehension. Empirical evidence consistently reveals that students enrolled in linguistic programs demonstrate significant enhancements in their abilities to express themselves effectively through writing and speaking, as well as a marked improvement in their capacity for analytical reasoning. Additionally, linguistic education fosters an enriched understanding and appreciation of linguistic diversity and multilingualism, thereby arming students with the necessary competencies to thrive in diverse cultural and professional environments.

**Research methodology.** This research utilizes a qualitative research methodology, which involves an extensive examination of literature pertaining to linguistic education in tertiary institutions. Scholarly articles, academic journals, and educational reports are scrutinized to investigate the importance of linguistic courses and their influence on the academic and professional development of students. The research methodology entails synthesizing findings from a wide range of sources to offer a comprehensive understanding of the subject.

**Analysis and results.** The examination indicates that linguistic courses are pivotal in furnishing students with crucial academic and professional competencies. Individuals enrolled in such courses exhibit enhancements in language mastery, communication aptitude, and critical reasoning prowess. Additionally, linguistic education augments students' cultural adeptness, enabling them to proficiently navigate the complexities of an increasingly interconnected world. These findings underscore the imperative of incorporating linguistic courses into higher education programs to bolster students' comprehensive advancement and achievements in both academic and professional domains.

**Conclusion.** In summary, linguistic courses offered by tertiary education institutions are pivotal in nurturing students' academic advancement, enhancing their communication abilities, and fostering cultural proficiency. These courses provide students with invaluable expertise and competencies applicable across various fields and professional sectors. Looking ahead, it is crucial for higher education institutions to acknowledge the importance of linguistic education and prioritize the inclusion of linguistic courses in their academic programs. Through this initiative, institutions can empower students to excel in an ever-evolving and culturally diverse global landscape.

#### References:

1. Turgunova F. fazilatturgunova05@ gmail. com KOGNITIV NAZARIYA ASOSIDA KENGAYTIRILGAN FRAZEOLOGIK METAFORA YARATISH



- XUSUSIYATLARI: KOGNITIV NAZARIYA ASOSIDA KENGAYTIRILGAN FRAZEOLOGIK METAFORA YARATISH XUSUSIYATLARI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
2. Turgunova F., Rustamov I., Ataboyev I. fazilatturgunova05@ gmail. com FRAZEOLOGIYADA CHEGARALAR MUAMMOSI: FRAZEOLOGIYADA CHEGARALAR MUAMMOSI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
  3. Turgunova F. fazilatturgunova05@ gmail. com NUTQ STRATEGIYASI TUSHUNCHASI: NUTQ STRATEGIYASI TUSHUNCHASI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
  4. Turgunova F. fazilatturgunova05@ gmail. com TV REKLAMA SARLAVHASINI KOMPRESSIYA HODISASINI ORGANISH UCHUN STRATEGIK YONDASHUV: TV REKLAMA SARLAVHASINI KOMPRESSIYA HODISASINI ORGANISH UCHUN STRATEGIK YONDASHUV //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
  5. Turgunova F. fazilatturgunova05@ gmail. com REKLAMA MATNINI SIQISHNI O'RGANISH UCHUN NAZARIY SHARTLAR SIQISH. UMUMIY TUSHUNCHALAR: REKLAMA MATNINI SIQISHNI O'RGANISH UCHUN NAZARIY SHARTLAR SIQISH. UMUMIY TUSHUNCHALAR //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
  6. Turgunova F. fazilatturgunova05@ gmail. com FRAZEOLOGIYANI O'RGANISHNING ETNOLINGVISTIK ASPEKTI: FRAZEOLOGIYANI O'RGANISHNING ETNOLINGVISTIK ASPEKTI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
  7. Ataboyev I. M., Turgunova F. R. The concept of semantic field in linguistics //ACADEMICIA: An International Multidisciplinary Research Journal. – 2022. – Т. 12. – №. 3. – С. 319-324.
  8. Rustamova, S. (2020). Jurnal Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism: Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism. *Архив Научных Публикаций JSPI*.
  9. Rustamova S., Mo'Ydinov Q. MAQOLLARDA NUTQ ODOBI (O 'ZBEK VA TOJIK XALQ MAQOLLARI ASOSIDA) //Science and innovation. – 2022. – Т. 1. – №. B8. – С. 1064-1069.
  10. Gafurov A., Rustamova S., Kurbonalieva K. YARN TYPES, STRUCTURE AND THEIR CLASSIFICATION //Science and innovation. – 2022. – Т. 1. – №. A7. – С. 489-495.
  11. Rustamova S., Mo'ydinov Q. SPEECH ETIQUETTE IN PROVERBS (BASED ON UZBEK AND TAJIK PROVERBS) //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 1064-1069.
  12. Saminov A. et al. PROSPECTS OF NUTRITION OF AGRICULTURAL CROPS THROUGH LEAVES //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 802-806.
  13. Rustamova S., Muazzamov B. FEATURES OF DETERMINATION OF PROGNOSTIC AND DIAGNOSTICALLY SIGNIFICANT MARKERS IN THE

- BLOOD OF PATIENTS WITH PULMONARY TUBERCULOSIS //Science and innovation. – 2023. – Т. 2. – №. D10. – С. 99-106.
14. Abdurakhimovna R. S. METHODS OF TEACHING ENGLISH IN NON-PHILOLOGICAL EDUCATIONAL AREAS //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 14-20.
15. Abdurakhimovna R. S. METHODS FOR THE DEVELOPMENT OF COMMUNICATIVE COMPETENCIES OF STUDENTS IN THE CREDIT-MODULE SYSTEM //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 8-13.
16. Abdurakhimovna R. S. THE STUDY OF FOREIGN LANGUAGES AND THE IMPORTANCE OF METHODS IN IT //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 1-7.
17. Rustamova S. Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism //International Journal of Scientific and Technology Research. – 2020. – Т. 9. – №. 3. – С. 624-625.
18. Tursunovich R. I. et al. INVESTIGATING LINGUISTIC CHALLENGES ARISING FROM TRANSLATING PROVERBS FROM ENGLISH INTO ANOTHER LANGUAGE //European Journal of Interdisciplinary Research and Development. – 2024. – Т. 26. – С. 132-135.
19. Tursunovich R. I. FUNDAMENTAL CHARACTERISTICS OF THE NOTION OF HOMONYMY IN THE FIELD OF LINGUISTICS //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 3. – С. 29-35.
20. Tursunovich R. I. THE CLASSIFICATION OF THE ANALYTICAL ESSAY AND ITS PRIMARY ATTRIBUTES //Web of Humanities: Journal of Social Science and Humanitarian Research. – 2024. – Т. 2. – №. 3. – С. 107-112.
21. Tursunovich R. I. SLANG IS A FEATURE OF CONTEMPORARY ENGLISH LANGUAGE USAGE //Western European Journal of Historical Events and Social Science. – 2024. – Т. 2. – №. 3. – С. 59-63.
22. Tursunovich R. I. et al. SPEECH COMPRESSION DURING SIMULTANEOUS INTERPRETATION //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 4. – С. 4-7.
23. Tursunovich R. I. CRITERIA FOR DELINEATING HOMONYMY FROM OTHER LINGUISTIC PHENOMENA. – 2024.
24. Abdurakhimovna R. S. APPROACHES TO TEACHING WRITING A FOREIGN LANGUAGE AT A NON-LINGUISTIC UNIVERSITY //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 4. – С. 8-14.
25. Abdurakhimovna R. S. LEXICAL ATTRIBUTES OF SLANG //Web of Humanities: Journal of Social Science and Humanitarian Research. – 2024. – Т. 2. – №. 4. – С. 25-29.
26. Abdurakhimovna R. S. The Concept and Important Importance of Intensity in Linguistics //Open Herald: Periodical of Methodical Research. – 2024. – Т. 2. – №. 4. – С. 16-21.

27. Abdurakhimovna R. S. STUDY ON INTENSITY EXPRESSION MEASUREMENT AND QUALITY //Western European Journal of Historical Events and Social Science. – 2024. – Т. 2. – №. 4. – С. 16-22.
28. Abdurakhimovna R. S. METHOD FOR MANAGING THE PROCESS OF MASTERING THE CONTENT OF TEACHING WRITING IN ENGLISH AS A SOCIAL PRACTICE. – 2024.
29. Mirza o'g'li A. I. et al. IDIOMS AND THEIR FEATURES IN COMMUNICATION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 152-161.
30. Mirza o'g'li A. I. et al. SYNTACTIC PROPERTIES OF INTERROGATIVE PRONOUNS IN ENGLISH //Proceedings of International Conference on Modern Science and Scientific Studies. – 2024. – Т. 3. – №. 5. – С. 1-7.
31. Mirza o'g'li A. I., Alisher o'g'li F. A. THE SIGNIFICANCE OF RHETORIC WITHIN ARTISTIC COMPOSITIONS //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 131-141.
32. Mirza o'g'li A. I. CHARACTERISTICS OF TERMINOLOGICAL DICTIONARIES IN THE CONTEXT OF TRANSLATION //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 120-130.
33. Mirza o'g'li A. I. et al. ANALYZING THE STYLISTIC ATTRIBUTES OF ENGLISH AND UZBEK LANGUAGES WITHIN NEWSPAPER TEXTS THROUGH LINGUISTIC EXAMINATION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 73-81.
34. Muzaffarovna Z. N. et al. THE GRAPHICAL AND ORTHOGRAPHIC CHARACTERISTICS OF ABBREVIATIONS IN NEWS ARTICLES //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 99-109.
35. Rashid o'g'li R. B. et al. APPROACHES AND DISTINCTIONS IN RHETORICAL STRATEGIES BETWEEN GENDERS PORTRAYED IN AN ARTISTIC DEPICTION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 95-106.
36. Rustam o'g'li Z. A. et al. CHARACTERISTICS OF NEWS HEADLINES FROM A LINGUISTIC PERSPECTIVE //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 89-98.
37. Nurulla o'g'li S. J. et al. THE DEGREE OF EXPRESSIVENESS CONVEYED THROUGH INTERROGATIVE SENTENCES IN A WORK OF PUBLICIST FICTION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 120-130.

## THE CHALLENGE OF REPRESENTING A VISUAL PORTRAYAL IN ARTISTIC CREATIONS

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**Abstract:** This article investigates the intricacies and hurdles encountered by artists in portraying visual depictions within their artworks. By scrutinizing the nuanced interplay among perception, interpretation, and artistic rendition, it investigates the diverse methodologies and strategies employed by artists to communicate visual imagery. Through a thorough examination of scholarly literature and a meticulous analysis of artistic techniques, this paper offers insights into the sophisticated process of crafting visual representations in the realm of art.

**Keywords:** Visual representation, artistic creation, perception, interpretation, imagery, artistic techniques.

**Introduction.** Throughout history, artists have grappled with the formidable task of accurately capturing visual representations in their creative endeavors. Whether aiming to portray the majestic beauty of natural landscapes, the profound depths of human emotions, or the subtle complexities of everyday life, artists strive to convey visual imagery that resonates deeply with their audience. However, this endeavor is fraught with complexities, as the transformation of visual perception into artistic expression relies on a multitude of factors, including subjective interpretation, technical mastery, and creative intuition. In this scholarly discourse, we embark on a nuanced exploration of the intricacies inherent in the representation of visual imagery within the domain of art. Through a comprehensive examination, we delve into the various methodologies and approaches employed by artists to navigate this challenging terrain.

Across epochs, artists have grappled with the daunting task of faithfully translating visual stimuli into artistic creations. Whether their aim is to capture the breathtaking grandeur of natural landscapes, the profound intricacies of human emotions, or the subtle nuances of everyday existence, artists aspire to imbue their works with visual imagery that evokes a profound response from viewers. Yet, this endeavor is replete with complexities, as the process of transmuting visual perception into artistic expression involves a myriad of factors, including subjective interpretation, technical proficiency, and creative ingenuity. In this scholarly discourse, we embark on a nuanced exploration of the challenges inherent in representing visual imagery

within the realm of art. Through a comprehensive analysis, we scrutinize the diverse methodologies and approaches employed by artists to navigate this intricate terrain.

Throughout the annals of history, artists have grappled with the formidable challenge of faithfully rendering visual depictions in their artistic endeavors. Whether endeavoring to encapsulate the magnificence of natural landscapes, the profundity of human emotions, or the intricacies of mundane existence, artists aspire to communicate visual imagery that deeply resonates with their audience. However, this pursuit is rife with complexities, as the translation of visual perception into artistic expression is contingent upon a myriad of factors, encompassing subjective interpretation, technical proficiency, and creative acumen. In this scholarly discourse, we undertake a nuanced exploration of the intricacies involved in representing visual imagery in the realm of art, scrutinizing the diverse methodologies and approaches adopted by artists to surmount this formidable challenge.

**Literature review.** For centuries, scholars and art critics have devoted significant attention to examining the representation of visual imagery in artistic works. Their inquiries have focused on understanding the intricate relationship between perception and artistic expression, investigating how artists transform visual stimuli into meaningful representations. From the era of Renaissance masters to contemporary practitioners, artists have employed a diverse array of techniques and approaches to convey the essence of visual imagery. This literature review consolidates existing scholarship on this topic, integrating insights from disciplines such as art history, aesthetics, psychology, and cognitive science. Through a comprehensive synthesis of research findings, this review offers a nuanced understanding of the challenges and complexities inherent in the portrayal of visual imagery in art. By delving into the rich tapestry of artistic traditions and methodologies, it lays the groundwork for further exploration and investigation into this captivating subject matter.

Over the course of history, the portrayal of visual imagery in art has served as a focal point of scholarly inquiry and contemplation. Scholars and critics alike have embarked on an exploration of the intricate dynamics between perception and artistic representation, striving to unravel the mechanisms through which artists translate visual stimuli into meaningful depictions. From the classical period of Renaissance luminaries to the diverse landscape of contemporary artistic expression, artists have harnessed a plethora of techniques and methodologies to capture the essence of visual imagery. This literature review synthesizes the extensive body of research dedicated to this subject, drawing upon insights gleaned from diverse disciplines including art history, aesthetics, psychology, and cognitive science. Through a meticulous examination of existing scholarship, this review provides a comprehensive overview of the inherent challenges and complexities associated with representing visual imagery in art. By illuminating the multifaceted nature of artistic endeavor, it lays the

groundwork for future research endeavors aimed at further unraveling the mysteries of visual representation in the realm of art.

**Research methodology.** In order to investigate the intricate task of depicting visual imagery in artistic endeavors, this research adopts a qualitative research approach. A wide array of artistic creations representing various time periods, artistic styles, and genres are subjected to analysis to discern shared themes, methodologies, and strategies employed by artists. The examination encompasses an assortment of primary sources, encompassing paintings, sculptures, and other visual artworks, alongside secondary sources such as art criticism, theoretical treatises, and scholarly investigations. By scrutinizing artistic works spanning different historical epochs and contemporary periods, this study endeavors to elucidate the intricate process of transforming visual perception into artistic expression.

This research endeavors to explore the multifaceted challenge of capturing visual imagery in artistic compositions through the lens of qualitative research methodology. To this end, a diverse selection of artistic works spanning distinct time periods, artistic styles, and genres are subjected to comprehensive analysis. The aim is to identify recurring themes, techniques, and approaches utilized by artists in their quest to represent visual imagery. The analytical process incorporates a blend of primary sources, comprising paintings, sculptures, and other visual artworks, as well as secondary sources such as art criticism, theoretical writings, and scholarly research. By examining both historical artifacts and contemporary creations, this study seeks to unravel the complexities inherent in translating visual perception into artistic expression.

To delve into the intricacies involved in portraying visual imagery in artistic endeavors, this study adopts a qualitative research methodology. A wide-ranging selection of artistic works spanning diverse temporal epochs, artistic styles, and genres undergoes scrutiny to discern commonalities in themes, methodologies, and approaches utilized by artists. The analysis draws upon an amalgamation of primary sources, including paintings, sculptures, and other visual artworks, alongside secondary sources such as art criticism, theoretical writings, and scholarly research. By juxtaposing historical artifacts with contemporary creations, this study endeavors to illuminate the intricacies associated with translating visual perception into artistic representation.

**Analysis and results.** The examination of artistic representations unveils a multitude of techniques and strategies employed by artists to capture visual imagery. Artists employ a diverse array of methods, ranging from faithful realistic representation to abstract interpretation, in their endeavor to convey visual stimuli in their works. Various techniques, including perspective, composition, color theory, and brushwork, are utilized to fabricate illusions of depth, form, and texture, thereby enriching the

realism and expressiveness of visual representations. Furthermore, artists frequently resort to symbolism, metaphor, and allegory to infuse their works with deeper layers of significance, thereby encouraging viewers to engage with the artwork on multiple cognitive and emotional levels. Through a comparative examination of artistic methodologies, this study illuminates the diverse approaches artists employ to confront the challenge of depicting visual imagery in their artistic compositions.

The scrutiny of artistic depictions reveals a myriad of techniques and methodologies utilized by artists to encapsulate visual imagery. Artists employ a diverse range of approaches, spanning from realistic representation to abstract interpretation, in their efforts to convey visual stimuli in their works. Various techniques, such as perspective, composition, color theory, and brushwork, are harnessed to fabricate illusions of depth, form, and texture, thereby augmenting the realism and expressiveness of visual representations. Additionally, artists frequently utilize symbolism, metaphor, and allegory to infuse their works with deeper layers of significance, thereby inviting viewers to engage with the artwork on multiple cognitive and emotional levels. Through a comparative analysis of artistic methodologies, this investigation elucidates the myriad ways in which artists contend with the challenge of representing visual imagery in their artistic endeavors.

The analysis of artistic representations uncovers a plethora of techniques and approaches deployed by artists to encapsulate visual imagery. Artists employ a diverse range of methods, spanning from faithful realistic representation to abstract interpretation, in their quest to convey visual stimuli in their works. Various techniques, including perspective, composition, color theory, and brushwork, are utilized to fabricate illusions of depth, form, and texture, thereby enhancing the realism and expressiveness of visual representations. Moreover, artists frequently draw upon symbolism, metaphor, and allegory to imbue their works with deeper layers of meaning, thereby prompting viewers to engage with the artwork on multiple cognitive and emotional levels. Through a comparative analysis of artistic methodologies, this study sheds light on the diverse ways in which artists grapple with the challenge of representing visual imagery in their creations.

**Conclusion.** In summary, the portrayal of visual imagery in artistic endeavors presents a significant and persistent challenge for artists. Through an exploration of the intricate interplay between perception, interpretation, and artistic expression, this article has offered insights into the complexities involved in capturing visual representations in art. By reviewing literature and analyzing artistic methodologies, we have deepened our comprehension of the various techniques and approaches employed by artists to convey visual imagery. Despite the challenges, artists persist in pushing the boundaries of artistic expression, providing viewers with fresh perspectives and insights into the beauty and intricacy of the visual realm.

**References:**

1. Turgunova F. fazilatturgunova05@ gmail. com KOGNITIV NAZARIYA ASOSIDA KENGAYTIRILGAN FRAZEOLOGIK METAFORA YARATISH XUSUSIYATLARI: KOGNITIV NAZARIYA ASOSIDA KENGAYTIRILGAN FRAZEOLOGIK METAFORA YARATISH XUSUSIYATLARI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
2. Turgunova F., Rustamov I., Ataboyev I. fazilatturgunova05@ gmail. com FRAZEOLOGIYADA CHEGARALAR MUAMMOSI: FRAZEOLOGIYADA CHEGARALAR MUAMMOSI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
3. Turgunova F. fazilatturgunova05@ gmail. com NUTQ STRATEGIYASI TUSHUNCHASI: NUTQ STRATEGIYASI TUSHUNCHASI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
4. Turgunova F. fazilatturgunova05@ gmail. com TV REKLAMA SARLAVHASINI KOMPRESSIYA HODISASINI ORGANISH UCHUN STRATEGIK YONDASHUV: TV REKLAMA SARLAVHASINI KOMPRESSIYA HODISASINI ORGANISH UCHUN STRATEGIK YONDASHUV //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
5. Turgunova F. fazilatturgunova05@ gmail. com REKLAMA MATNINI SIQISHNI O'RGANISH UCHUN NAZARIY SHARTLAR SIQISH. UMUMIY TUSHUNCHALAR: REKLAMA MATNINI SIQISHNI O'RGANISH UCHUN NAZARIY SHARTLAR SIQISH. UMUMIY TUSHUNCHALAR //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
6. Turgunova F. fazilatturgunova05@ gmail. com FRAZEOLOGIYANI O'RGANISHNING ETNOLINGVISTIK ASPEKTI: FRAZEOLOGIYANI O'RGANISHNING ETNOLINGVISTIK ASPEKTI //Журнал иностранных языков и лингвистики. – 2022. – Т. 4. – №. 4.
7. Ataboyev I. M., Turgunova F. R. The concept of semantic field in linguistics //ACADEMICIA: An International Multidisciplinary Research Journal. – 2022. – Т. 12. – №. 3. – С. 319-324.
8. Rustamova, S. (2020). Jurnal Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism: Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism. *Архив Научных Публикаций JSPI*.
9. Rustamova S., Mo'Ydinov Q. MAQOLLARDA NUTQ ODOBI (O 'ZBEK VA TOJIK XALQ MAQOLLARI ASOSIDA) //Science and innovation. – 2022. – Т. 1. – №. B8. – С. 1064-1069.



10. Gafurov A., Rustamova S., Kurbonalieva K. YARN TYPES, STRUCTURE AND THEIR CLASSIFICATION //Science and innovation. – 2022. – Т. 1. – №. А7. – С. 489-495.
11. Rustamova S., Mo‘ydinov Q. SPEECH ETIQUETTE IN PROVERBS (BASED ON UZBEK AND TAJIK PROVERBS) //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 1064-1069.
12. Saminov A. et al. PROSPECTS OF NUTRITION OF AGRICULTURAL CROPS THROUGH LEAVES //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 802-806.
13. Rustamova S., Muazzamov B. FEATURES OF DETERMINATION OF PROGNOSTIC AND DIAGNOSTICALLY SIGNIFICANT MARKERS IN THE BLOOD OF PATIENTS WITH PULMONARY TUBERCULOSIS //Science and innovation. – 2023. – Т. 2. – №. D10. – С. 99-106.
14. Abdurakhimovna R. S. METHODS OF TEACHING ENGLISH IN NON-PHILOLOGICAL EDUCATIONAL AREAS //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 14-20.
15. Abdurakhimovna R. S. METHODS FOR THE DEVELOPMENT OF COMMUNICATIVE COMPETENCIES OF STUDENTS IN THE CREDIT-MODULE SYSTEM //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 8-13.
16. Abdurakhimovna R. S. THE STUDY OF FOREIGN LANGUAGES AND THE IMPORTANCE OF METHODS IN IT //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2023. – Т. 2. – №. 13. – С. 1-7.
17. Rustamova S. Formation Of Theory And Practice Of Translation In The Period Of Slavery And Feudalism //International Journal of Scientific and Technology Research. – 2020. – Т. 9. – №. 3. – С. 624-625.
18. Tursunovich R. I. et al. INVESTIGATING LINGUISTIC CHALLENGES ARISING FROM TRANSLATING PROVERBS FROM ENGLISH INTO ANOTHER LANGUAGE //European Journal of Interdisciplinary Research and Development. – 2024. – Т. 26. – С. 132-135.
19. Tursunovich R. I. FUNDAMENTAL CHARACTERISTICS OF THE NOTION OF HOMONYMY IN THE FIELD OF LINGUISTICS //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 3. – С. 29-35.
20. Tursunovich R. I. THE CLASSIFICATION OF THE ANALYTICAL ESSAY AND ITS PRIMARY ATTRIBUTES //Web of Humanities: Journal of Social Science and Humanitarian Research. – 2024. – Т. 2. – №. 3. – С. 107-112.

21. Tursunovich R. I. **SLANG IS A FEATURE OF CONTEMPORARY ENGLISH LANGUAGE USAGE** //Western European Journal of Historical Events and Social Science. – 2024. – Т. 2. – №. 3. – С. 59-63.
22. Tursunovich R. I. et al. **SPEECH COMPRESSION DURING SIMULTANEOUS INTERPRETATION** //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 4. – С. 4-7.
23. Tursunovich R. I. **CRITERIA FOR DELINEATING HOMONYMY FROM OTHER LINGUISTIC PHENOMENA.** – 2024.
24. Abdurakhimovna R. S. **APPROACHES TO TEACHING WRITING A FOREIGN LANGUAGE AT A NON-LINGUISTIC UNIVERSITY** //European Journal of Pedagogical Initiatives and Educational Practices. – 2024. – Т. 2. – №. 4. – С. 8-14.
25. Abdurakhimovna R. S. **LEXICAL ATTRIBUTES OF SLANG** //Web of Humanities: Journal of Social Science and Humanitarian Research. – 2024. – Т. 2. – №. 4. – С. 25-29.
26. Abdurakhimovna R. S. **The Concept and Important Importance of Intensity in Linguistics** //Open Herald: Periodical of Methodical Research. – 2024. – Т. 2. – №. 4. – С. 16-21.
27. Abdurakhimovna R. S. **STUDY ON INTENSITY EXPRESSION MEASUREMENT AND QUALITY** //Western European Journal of Historical Events and Social Science. – 2024. – Т. 2. – №. 4. – С. 16-22.
28. Abdurakhimovna R. S. **METHOD FOR MANAGING THE PROCESS OF MASTERING THE CONTENT OF TEACHING WRITING IN ENGLISH AS A SOCIAL PRACTICE.** – 2024.
29. Mirza o'g'li A. I. et al. **IDIOMS AND THEIR FEATURES IN COMMUNICATION** //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 152-161.
30. Mirza o'g'li A. I. et al. **SYNTACTIC PROPERTIES OF INTERROGATIVE PRONOUNS IN ENGLISH** //Proceedings of International Conference on Modern Science and Scientific Studies. – 2024. – Т. 3. – №. 5. – С. 1-7.
31. Mirza o'g'li A. I., Alisher o'g'li F. A. **THE SIGNIFICANCE OF RHETORIC WITHIN ARTISTIC COMPOSITIONS** //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 131-141.
32. Mirza o'g'li A. I. **CHARACTERISTICS OF TERMINOLOGICAL DICTIONARIES IN THE CONTEXT OF TRANSLATION** //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 120-130.
33. Mirza o'g'li A. I. et al. **ANALYZING THE STYLISTIC ATTRIBUTES OF ENGLISH AND UZBEK LANGUAGES WITHIN NEWSPAPER TEXTS**

- THROUGH LINGUISTIC EXAMINATION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 73-81.
34. Muzaffarovna Z. N. et al. THE GRAPHICAL AND ORTHOGRAPHIC CHARACTERISTICS OF ABBREVIATIONS IN NEWS ARTICLES //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 99-109.
35. Rashid o'g'li R. B. et al. APPROACHES AND DISTINCTIONS IN RHETORICAL STRATEGIES BETWEEN GENDERS PORTRAYED IN AN ARTISTIC DEPICTION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 95-106.
36. Rustam o'g'li Z. A. et al. CHARACTERISTICS OF NEWS HEADLINES FROM A LINGUISTIC PERSPECTIVE //Proceedings of International Conference on Educational Discoveries and Humanities. – 2024. – Т. 3. – №. 5. – С. 89-98.
37. Nurulla o'g'li S. J. et al. THE DEGREE OF EXPRESSIVENESS CONVEYED THROUGH INTERROGATIVE SENTENCES IN A WORK OF PUBLICIST FICTION //Proceedings of International Conference on Scientific Research in Natural and Social Sciences. – 2024. – Т. 3. – №. 5. – С. 120-130.

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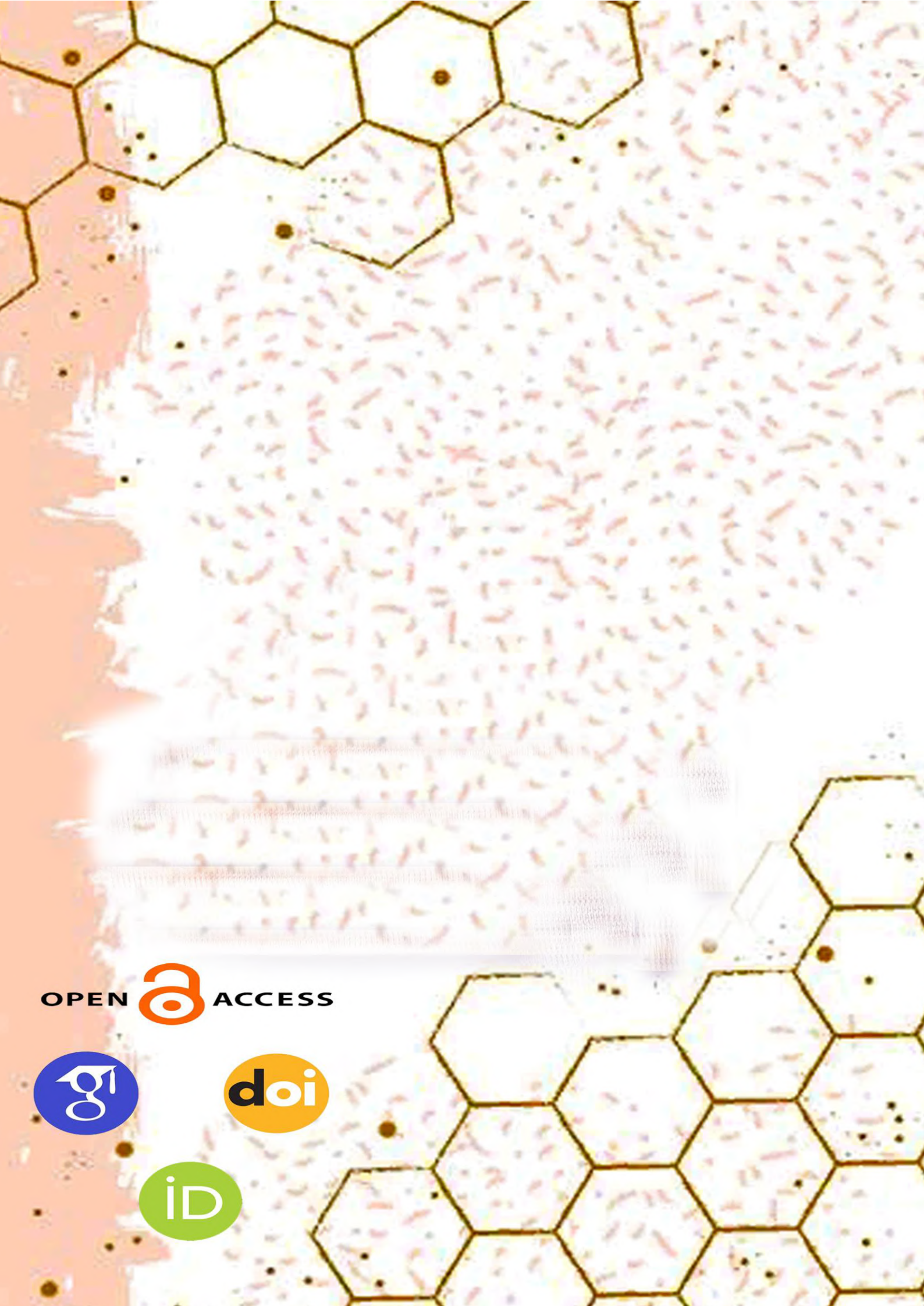
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