# DAVRA SUHBATI BO'LAJAK BIOLOGIYA O'QITUVCHILARINING KVAZIPROFESSIONAL FAOLIYATINI TAKOMILLATISH USULI SIFATIDA

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Magolada davra suhbati biologiya Annotatsiya. bo'lajak o'qituvchilarining kvaziprofessional faoliyatini takomillashtirish usullaridan biri sifatida tasvirlangan. Muallifning asosiy maqsadi davra suhbati va uning natijalarini batafsil tavsiflash orgali ushbu usulning samaradorligini aks ettirishdir. Maqola «Molekulyar biologiyaning markaziy dogmasi» mavzusining tavsifi keltirilgan. Ma'ruza mashg'uloti davra suhbati asosida tashkil etilgan bo'lib, bu o'qituvchiga ham, talabalarga ham mavzuni muhokama qilishda qatnashish imkonini berdi va mavzuni o'zlashtirish foizini sezilarli darajada oshirdi. Shuningdek, o'qituvchi va talabaning birbiriga o'zaro ta'siri, mavzuni taqdim etishning ushbu usuli bilan motivatsiya xususiyatlarini aniqlash tavsifi bayon etilgan.

Kalit so'zlar: davra suhbati, motivatsiya, ma'ruza, talaba, kvaziprofessional faoliyat, munozara, «savol-javob» metodi, «yarim ovozli munozara» metodi, klinik metodi, «labirint» metodi, estafeta metodi, erkin bahs metodi, muhokama.

# КРУГЛЫЙ СТОЛ КАК МЕТОД СОВЕРШЕНСТВОВАНИЯ КВАЗИПРОФЕССИОНАЛЬНОЙ ДЕЯТЕЛЬНОСТИ БУДУЩИХ УЧИТЕЛЕЙ БИОЛОГИИ

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Аннотация. В статье описывается круглый стол как один из методов совершенствования квазипрофессиональной деятельности будущих учителей биологии. Основная цель автора - отразить эффективность данного метода, предоставив подробное описание события и его результатов. Статья представляет собой описание теоретического занятия по теме «Центральная догма молекулярной биологии». Урок представлен в форме лекции — «круглого стола», что позволило как учителю, так и учащимся принять участие в обсуждении темы, и значительно повысило процент усвоения материала. Также имеется описание взаимодействия преподавателя и студента, выявление особенностей мотивации при таком способе подачи материала.

Ключевые слова: круглый стол, мотивация, лекция, студент, квазипрофессиональная деятельность, дискуссия, методика «вопросответ», методика «Обсуждение вполголоса», клиническая методика, методика «лабиринт», методика эстафеты, свободное обсуждение., дебаты.



## ROUND TABLE AS A METHOD OF IMPROVING THE OUASI-PROFESSIONAL ACTIVITIES OF FUTURE BIOLOGY TEACHERS

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Annotation. The article describes the round table as one of the methods of improving the quasi-professional activities of future biology teachers. The main goal of the author is to reflect the effectiveness of this method by providing a detailed description of the event and its results. The article is a description of a theoretical lesson on the topic «The Central worldview of molecular Biology». The lesson is presented in the form of a lecture – a «round table», which allowed both the teacher and students to take part in the discussion of the topic, and significantly increased the percentage of understanding of the material. There is also a description of the interaction between the teacher and the student, identifying the features of motivation in this method of presenting the material.

Keywords: round table, motivation, lecture, student, quasi-professional activity, discussion, «question - answer» technique, «Discussion in a low voice» procedure, clinic technique, «labyrinth» technique, relay race technique, free-floating discussion, debate.

Introduction. Every future biology teacher should have the opportunity to realize himself in professional activity, taking into account individual abilities and inclinations to increase his creative potential, exchange experience between teacher and student, work in a team, form a culture of speech, master the ways of transmitting his knowledge to the listener in a clear and understandable form. One of the methods of quasi-professional activity round table helps to form the above opportunities.

The round table is a method of active learning, one of the organizational forms of cognitive activity of students, which allows them to consolidate previously acquired knowledge, fill in missing information, form skills to solve problems, strengthen positions, teach a culture of discussion. A characteristic feature of the «round table» is the combination of a thematic discussion with a group consultation [1].

The round table is a lecture or a practical lesson, it is based on several different points of view on the same issue, as a result of which the participants come to positions and solutions acceptable to each of them. The modern educational method is essentially a «problem-oriented approach to learning and allows students to focus their attention on the analysis and resolution of a specific problem situation.»

The main purpose of the «round table» is to develop students' professional skills to express thoughts, argue their thoughts, justify proposed solutions and defend their beliefs [2]. At the same time, information is consolidated and independent work with additional material is carried out, as well as the identification of problems and issues for discussion. For example:

Methods. A free conference held within the framework of the curriculum



was held at the Department of Biology of the Bukhara State University. 29 students took part in the study: 22 girls, 7 boys of the 2nd year of the Faculty of Agronomy and Biotechnology in the direction of "Biology". The students were previously warned about holding a round table according to the topic «The Central worldview of molecular "Biology». Below we will talk about how to organize the aforementioned round table in the form of discussions and debates and what to pay attention to.

An important task in organizing the «round table» is:

- discussion during the discussion of one or two problematic, acute situations on this topic;
- illustration of opinions, positions using various visual materials (diagrams, diagrams, graphs, audio, video recordings, photo, film documents);
- thorough preparation of the main speakers (not limited to reports, reviews, but to express their opinions, evidence, arguments) [3].

When holding a «round table», it is necessary to take into account some features:

- a) it is necessary that it be really round, i.e. the process of communication, communication, took place «eye to eye». The principle of the «round table» (it is not accidental that it was adopted at the negotiations), i.e. the location of the participants facing each other, and not in the back of the head, as in a normal lesson, generally leads to an increase in activity, an increase in the number of statements, the possibility of personal inclusion of each student in the discussion, increases the motivation of students, includes non-verbal means of communication, such as facial expressions, gestures, emotional manifestations.
- b) the teacher is also located in the general circle, as an equal member of the group, which creates a less formal environment compared to the generally accepted one, where he sits separately from the students, they face him. In the classic version, the participants address their statements mainly to him, and not to each other. And if the teacher is sitting among the students, the appeals of the group members to each other become more frequent and less constrained, this also contributes to the formation of a favorable environment for discussion and the development of mutual understanding between the teacher and students.

It is advisable to organize the «round table» as follows:

- 1. The teacher formulates (it is recommended to involve the students themselves) questions, the discussion of which will allow to comprehensively consider the problem.
- 2. Questions are divided into subgroups and distributed to participants for targeted preparation;

The activation of the students' work during the round table is achieved by informing each student personally. This is the main characteristic feature of this form of lecture. The need to formulate questions and ask them correctly stimulates mental activity, and the expectation of receiving an answer to the problem posed by the student focuses his interest on the lecture. Students' questions are represented by the beginning of creative thinking processes [4].



- 3. Specialists (biochemists, biologists, geneticists) may be invited to cover specific issues;
- 4. During the lesson, the questions are revealed in a certain sequence. During the period of the round table, the student learns the elements of conducting research. His creative possibilities are revealed, there is a general scientific interest in solving the problems posed. During the round table, every student participates in the discussion of the problem, this provides an opportunity to identify abilities and gives impulse to the beginning of scientific work.

The speeches of specially trained students are discussed and supplemented. Questions are asked, students express their opinions, argue, justify their point of view.

The personal, professional and social position of the teacher to the identified problems and their solution has an educational effect on students [5, p. 57].

The main part of the round table on any topic is discussion and debate.

Discussion (from lat. discussion — research, consideration) is a comprehensive discussion of a controversial issue in a public meeting, in a private conversation, dispute. In other words, a discussion consists in a collective discussion of an issue, a problem, or a comparison of information, ideas, opinions, proposals. The objectives of the discussion can be very diverse: education, training, diagnostics, transformation, changing attitudes, stimulating creativity, etc.

1. Preparation of the lesson. When organizing a discussion in the educational process, several educational goals are usually set at once, both purely cognitive and communicative. At the same time, the goals of the discussion are, of course, closely related to its topic. If the topic is extensive, contains a large amount of information, as a result of the discussion, only such goals as the collection and ordering of information, the search for alternatives, their theoretical interpretation and methodological justification can be achieved. If the topic of discussion is narrow, then the discussion may end with a decision.

During the discussion, students can either complement each other or confront each other. In the first case, the features of a dialogue appear, and in the second, the discussion takes on the character of a dispute. As a rule, both of these elements are present in the discussion, so it is wrong to reduce the concept of discussion only to a dispute. Both a mutually exclusive dispute and a mutually complementary, mutually developing dialogue play an important role, since the fact of comparing different opinions on one issue is of paramount importance.

The experience of participating in the lecture - round table gives students the opportunity to practice the ability to ask and answer questions, avoid difficult communicative situations, form skills of confirmation and refutation, taking into account the positions of the person who asked the question.

Moreover, such an experience of the norms of cultural thinking teaches us



to adequately perceive information, logically correctly, argumentatively and clearly build oral speech, analyze educational and professionally significant problems, and possess goal-setting skills. In the future, this will help to form a cultural personality capable of professional activity and solving socially and personally significant problems.

In order to organize a discussion and exchange of information in the full sense of the word, so that the «round table» does not turn into a mini-lecture, a teacher's monologue, the lesson must be carefully prepared. To do this, the organizer of the «round table» must:

- prepare questions in advance that could be put up for discussion on the conclusion of the discussion in order not to let it go out;
  - avoid leaving the scope of the problem under discussion;
- ensure that as many students as possible are widely involved in the conversation, and preferably all;
- do not ignore any incorrect judgments, but do not immediately give the correct answer; students should be involved in this by organizing their critical assessment in a timely manner;
- do not rush to answer questions yourself regarding the material of the round table: such questions should be forwarded to the audience;
- make sure that the object of criticism is the opinion, and not the participant who expressed it.
- compare different points of view, involving students in collective analysis and discussion, remember the words of K.D. Ushinsky that the basis of cognition is always comparison.

Various organizational methods are used in conducting the discussion.

The «question – answer» technique: This technique is a kind of simple interview; the difference is that a certain form of asking questions is used for an interview with the participants of the discussion-dialogue.

The procedure is «Discussion in a low voice». This technique involves holding a closed discussion in micro-groups, after which a general discussion is held, during which the opinion of its micro-group is reported by its leader and this opinion is discussed by all participants.

The clinic's methodology: When using the «clinic methodology», each of the participants develops his own solution, having previously submitted his «diagnosis» of the problem situation to an open discussion, then this decision is evaluated by both the head and a group of experts specially allocated for this purpose on a point scale or according to a pre–accepted «accepted - not accepted» system.

The «labyrinth» technique: This type of discussion is otherwise called the method of sequential discussion, it is a kind of step-by-step procedure in which each subsequent step is done by another participant. All decisions are subject to discussion here, even incorrect (dead-end) ones.

The technique of the relay race: Each participant finishing his speech can give the floor to whoever he sees fit.

Free-floating discussion: The essence of this type of discussion is that



the group does not come to a result, but the activity continues beyond the scope of the lesson. At the heart of such a group work procedure is the «B.V. Zeigarnik effect», characterized by high quality memorization of unfinished actions, so participants continue to «speculate» in private ideas that turned out to be incomplete.

The effectiveness of the discussion depends on such factors as:

- preparation (awareness and competence) of the student on the proposed problem;
- semantic uniformity (all terms, definitions, concepts, etc. should be equally understood by all students);
  - correctness of participants' behavior;
  - the ability of the teacher to conduct a discussion.

The correct organization of the «round table» in the form of a discussion goes through three stages of development: orientation, evaluation and consolidation.

- 2. Introduction. At the first stage, students adapt to the problem and to each other, i.e. at this time a certain attitude is developed to solve the problem. At the same time, in front of the teacher (the organizer of the discussion) the following tasks are set:
- formulate the problem and objectives of the discussion. To do this, it is necessary to explain what is being discussed, what the discussion should give.

Practical problems can be used in the lecture. This is probably the second most common method, after the survey, used by university teachers. The use of practical tasks increases interest and contributes to solving problems in an effective way. It is also important for undergraduates with limited practical experience. During the lecture, students may be asked to analyze or discuss a case that is presented on paper, on video or live.

Examples of presentations can be structured in different ways, and the purposes of their use should be clearly outlined in advance. For example, you can illustrate a specific point in the description of the problem or support certain principles at any time during the lecture. It can also be used to get students to put forward a hypothesis about what is happening on the screen and how to solve the problem. Alternatively, students can be asked to work with the experiment in the classroom, where the lecturer provides some information, asks students about their hypotheses and areas for further inquiry, provides additional information and works slowly through communication with students. Examples of this exist as follows: students are invited to read a case in which a complex situation is described, including a problem that requires a solution. In the classroom, students must defend the factual basis and reasoning that led to their decision.

• to introduce the participants (if the group in this composition is going for the first time). To do this, you can ask each student to introduce himself or use the «interviewing» method, which consists in the fact that participants are divided into pairs and introduce each other after a short introductory (no more than 5 minutes), directed conversation.



- to create the necessary motivation, i.e. to state the problem, to show its significance, to identify unresolved and contradictory issues in it, to determine the expected result (solution).
  - establish the rules of discussion, or rather, the rules of speeches.
- formulate rules for conducting a discussion, the main one of which is that everyone should speak. In addition, it is necessary: to listen carefully to the speaker, not to interrupt, to substantiate your position, not to repeat yourself, not to allow personal confrontation, to maintain impartiality, not to evaluate speakers without listening to the end and not understanding the position.
- create a friendly atmosphere, as well as a positive emotional background. Personalized appeals to students, dynamic conversation, the use of facial expressions and gestures, and, of course, smiles can help the teacher here. It should be remembered that the basis of any active learning method is conflict-free!
- to achieve an unambiguous semantic understanding of terms, concepts, etc. To do this, with the help of questions and answers, it is necessary to clarify the conceptual apparatus, working definitions of the topic under study. Systematic refinement of the conceptual apparatus will form the students' attitude, the habit of operating only with well-understood terms, not using obscure words, systematically using reference literature.
- 3. The main part. The second stage the evaluation stage usually involves a situation of comparison, confrontation and even a conflict of ideas, which in the case of inept leadership of the discussion can develop into a conflict of personalities. Students are provided with a brief description of the problem situation. In groups, students take on the role of a decision-maker, trying to figure out the problem. Sometimes they are divided into teams and try to defend their positions. They often work alone. However, the student audience must come to a solution that is mutually acceptable. At this stage, in front of the teacher (the organizer of the «round table») the following tasks are set:
- start an exchange of views, which involves giving the floor to specific participants. The teacher is not recommended to take the floor first.
- collect maximum opinions, ideas, suggestions. To do this, it is necessary to activate each student. Speaking with their opinion, everyone can immediately make their suggestions, or they can just speak at first, and later formulate their proposals.
- not to stray from the topic, which requires some firmness of the organizer, and sometimes even authoritarianism. It is necessary to tactfully stop the deviants, directing them in a given «direction».
- maintain a high level of activity of all participants. Do not allow excessive activity of some at the expense of others, observe the rules, stop prolonged monologues, connect everyone present to the conversation.
- promptly analyze the ideas, opinions, positions, proposals expressed before proceeding to the next round of discussion. It is advisable to make such an analysis, preliminary conclusions or summary at certain intervals (every



- 10-15 minutes), while summing up interim results. Summing up intermediate results is very useful to entrust students, offering them a temporary role as a presenter.
- 4. Conclusions (reflection). The third stage the stage of reflection involves the development of certain unified or compromise opinions, positions, decisions. At this stage, the controlling function of the lesson is carried out. The tasks that the teacher must solve can be formulated as follows:
- analyze and evaluate the discussion, summarize the results. To do this, it is necessary to compare the goal formulated at the beginning of the discussion with the results obtained, draw conclusions, make decisions, evaluate the results, identify their positive and negative sides.
- to help the participants of the discussion come to an agreed opinion, which can be achieved by carefully listening to different interpretations, searching for common trends for decision-making.
- make a group decision together with the participants. At the same time, the importance of diverse positions and approaches should be emphasized.
- in the final word, bring the group to constructive conclusions that have cognitive and practical significance.
- to achieve a sense of satisfaction among the majority of participants, i.e. to thank all students for their active work, to highlight those who helped in solving the problem.

When holding a «round table» in the form of a discussion, students perceive not only the ideas expressed, new information, opinions, but also the bearers of these ideas and opinions, and, above all, the teacher. Therefore, it is advisable to specify the main qualities and skills that the organizer should possess in the process of holding the «round table»:

- high professionalism, good knowledge of the material in the framework of the curriculum;
- speech culture and, in particular, a free and competent command of professional terminology;
- sociability, or rather communicative skills that allow the teacher to find an approach to each student, listen to everyone with interest and attentively, be natural, find the necessary methods of influencing students, be demanding, while observing pedagogical tact;
  - speed of reaction;
  - ability to lead;
  - ability to conduct a dialogue;
- predictive abilities that allow you to foresee in advance all the difficulties in mastering the material, as well as to predict the course and results of pedagogical influence, to anticipate the consequences of your actions;
  - ability to analyze and correct the course of the discussion;
  - self-control
  - the ability to be objective.

A question and answer procedure is an integral part of any discussion. A skillfully posed question (such is the question, such is the answer) allows you to get additional information, clarify the speaker's position and thereby



determine the further tactics of the «round table».

From a functional point of view, all questions can be divided into two groups:

- clarifying (closed) questions aimed at clarifying the truth or falsity of statements, the grammatical feature of which is usually the presence of a particle «li» in a sentence, for example: «Is it true that?», «Did I understand that correctly?». The answer to such a question can only be «yes» or «no».
- filling (open) questions aimed at clarifying new properties or qualities of phenomena and objects of interest to us. Their grammatical feature is the presence of interrogative words: what, where, when, how, why, etc.

From a grammatical point of view, the questions are simple and complex, i.e. consisting of several simple ones. A simple question contains a mention of only one object, object or phenomenon.

If we look at the questions from the standpoint of the rules of discussion, then among them we can distinguish the correct and incorrect ones both from a substantive point of view (incorrect use of information) and from a communicative point of view (for example, questions aimed at the personality, and not at the essence of the problem). A special place is occupied by so-called provocative or catching questions. Such questions are asked in order to confuse an opponent, sow distrust of his statements, switch attention to himself or strike a critical blow.

From a teaching point of view, questions can be controlling, activating attention, activating memory, developing thinking.

It is preferable to use simple questions in the discussion, since they do not carry ambiguity, it is easy to give a clear and accurate answer to them. If a student asks difficult questions, it is advisable to ask him to divide his question into several simple ones.

The «round table» in the form of debates is based on free expression, exchange of opinions on the thematic thesis proposed by students. The participants of the debate give examples, facts, argue, logically prove, explain, give information, etc. The debate procedure does not allow personal assessments, emotional manifestations. The topic is being discussed, not the attitude of individual participants to it.

The main difference between debates and discussions is as follows: this form of a «round table» is devoted to an unambiguous answer to the question posed – yes or no. Moreover, one group (affirmers) is supporters of a positive answer, and the other group (deniers) is supporters of a negative answer. Within each of the groups, 2 subgroups can be formed, one subgroup selects arguments, and the second one develops counterarguments.

Debates shape:

- ability to form and defend your position;
- oratorical skills and the ability to conduct a dialogue;
- team spirit and leadership qualities.

The «round table» in the form of debates develops the abilities and forms the necessary skills for dialogue:

development of critical thinking (rational, reflexive and creative



thinking necessary in the formulation, definition, justification and analysis of the thoughts and ideas discussed);

- development of communicative culture, public speaking skills;
- formation of research skills (the arguments given require proof and examples, which require working with information sources to find);
- formation of organizational skills (meaning not only the organization of oneself, but also the materials presented);
  - formation of listening and recording skills.

Two teams take part in the debate (one approves the thesis, and the other denies it). Teams, depending on the format of the debate, consist of two or three players (speakers). The essence of the game is to convince a neutral third party, the judges, that your arguments are better (more convincing) than your opponent's arguments.

Each stage of the debate has its own structure and system of methods and techniques used.

- 1. Preparation of the lesson. Development of the preparatory stage for the «Debate». To do this, together with initiative students, they determine the following:
  - academic subject;
  - the topic of the «Debate» (several options);
  - the purpose of the «Debate»;
  - principles of team formation;
  - types of work with information on the topic of «Debates»;
  - preparing teams for the «Debate»;
  - criteria for evaluating «Debates»;
  - a form of analysis and evaluation of «Debates».

Implementation of developed classes with students or colleagues. Discussion of the results.

Preparation for the debate begins with the definition of the topic (theses). In debates, as a rule, it is formulated in the form of a statement, for example: «Technological progress leads to the death of the genotype of living beings.» When selecting a topic, it is necessary to take into account the requirements according to which a «good» topic should:

- provoke interest by touching on issues that are significant for debaters;
- be balanced and give equal opportunities to teams in presenting qualitative arguments;
  - have a clear wording;
  - stimulate research work;
  - have positive wording for the approving party.

The structure of the preparatory stage can be summarized as follows.

Working with information on the topic:

- activation of students' knowledge (brainstorming);
- search for information using various sources;
- systematization of the received material;
- preparation of case studies (argumentation systems) of thesis approval



and denial, preparation of a round of questions, etc

- . Formation of general and special skills:
- formulation and justification of arguments, supports;
- building a strategy of the negative side;
- ability to formulate questions correctly;
- mastering the knowledge of rhetoric and logic, applying them in practice;
- mastering the skills of effective group work, self-training and relaxation.

So, at the preparatory stage, students should not only deeply study and carefully work out the content of the topic proposed for the game, but also define each concept in the thesis, make cases (a system of arguments) both for the approving and for the denying side, since the draw of the teams is carried out shortly before the start of the game itself. At the same time, a denial strategy is thought out for each side, that is, counterarguments are drawn up for possible arguments of opponents, and questions are proposed that contribute to the detection of contradictions in the position of the opposite side.

A handout is supposed to be used during the lecture. Handouts are useful for helping to organize key concepts in order to help preserve information and to relieve pressure on the teacher. For example, slide handouts allow students to participate more in thinking about concepts rather than writing down every word of the lecture.

The literature on handouts assumes that students get higher scores in lectures accompanied by handouts, that students rate them, and that the handout can be used for notes. For example, in one study, students preferred to write in the space between headings, and the more free space, the more notes. Similarly, it was found that incomplete handouts contributed to closer attention and retention of the taught material in memory [5, p. 57].

In an interactive lecture, handouts can also structure the discussion and/ or supplement the content of the lecture. The time at which it is necessary to issue a handout depends on its purpose. This is useful before the lecture if the student has to prepare with the help of additional literature; it is more effective at the beginning of the lecture if the handout is incomplete; and it is most valuable at the end of the lecture if the handout contains an addendum [6].

2. Introduction. Each team (consisting of three speakers) has the opportunity to take time-outs between any rounds with a total duration of 9 minutes.

Speaker roles

Speaker U1:

- team presentation;
- formulation of the topic, relevance;
- definition of key concepts included in the topic;
- nomination of criteria (value or purpose of the team);
- presentation of the approving party's case;
- conclusion (thus... ready to answer questions...).



## Speaker O1:

- team presentation;
- formulation of the denial thesis;
- adoption of definitions of key concepts;
- attacking or accepting opponents' criteria;
- refutation of the statement position;
- presentation of the case of the negative party.

Specially selected judges or a neutral audience evaluate the performances of the teams according to the selected criteria and announce the winner.

3. The main part.

Form of debate

U1 is the first speaker of the approval team;

O1 is the first speaker of the denial team, etc.

Each speaker performs roles and functions strictly defined by the technology of the game during the game, and the roles of the first speakers differ from each other, and the roles of the second and third coincide.

The time is monitored throughout the game by a «time keeper», who warns the teams and referees 2, 1 and 0.5 minutes before the end of the performance (preparation) time. To do this, he uses cards with the time written on them, which he shows to the teams.

Action	Time
Performance U1	7 minutes
Questions O3 to U1	4 minutes
Performance O1	7 minutes
Questions U3 to O1	4 minutes
Performance U2	6 minutes
Questions O1 to U2	4 minutes
Performance O2	6minutes
Questions U1 to O2	4 minutes
Performance U3	6 minutes
Performance O3	6minutes

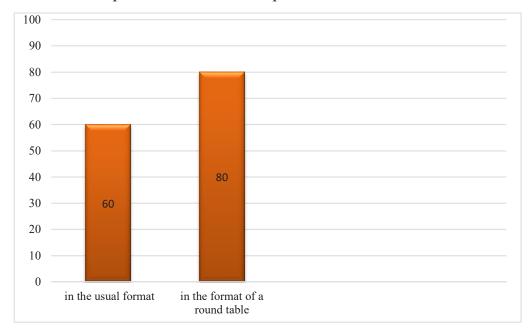
4. Conclusions (reflection). After the end of the «round table» in the form of debates, a reflexive analysis of the activities of all participants takes place. The preparation of teams for «Debates», their ways of putting forward arguments and answers to opponents' questions, and other elements of activity are analyzed.

Result and Discussion. At the end of the lecture, the final assessment of the student's independent work as a lecturer was carried out, reflecting the correctness of the material presented, awareness and interests of the listeners. The assessment of the familiarity of the listeners was carried out using a test questionnaire, which was originally proposed and prepared by a 2nd-year



student of the Faculty of Agronomy and Biotechnology in the direction of "Biotechnology", who listened to a lecture on the central dogma of molecular biology in the usual format. This approach to learning develops continuity of knowledge and striving for it in students of different directions.

During the comparison of the test results, it turned out that with the usual format of the lecture, about 60% of the material was absorbed by the listeners, with the format of the lecture – round table, students received about 80% of the information, which indicates the effectiveness of using the lecture – round table as part of the educational process.



It was also noted by the students that when the format was changed, uncertainty disappeared when answering in front of the audience and from receiving an unsatisfactory assessment, since the format of interaction in the «student – teacher» pair to «student – lecturer» changed. Those students who usually behave passively in the classroom also participated in the discussion and offered new ideas for improving hygiene methods against changing these processes.

Conclusions. It is more correct to carry out a round table at the beginning of the study of a problem or section. At the beginning of the study of the problem, the key task of the lecture is to detect the range of interest of the student, the level of his readiness for the lesson. The teacher has the opportunity to form a model of behavior of the audience of listeners. This is especially important at the first lesson of a teacher with students or at the beginning of a special course, when introducing new disciplines, etc.

The round table at the end of the course is aimed at attracting students' interest in the main issues of the discipline, systematization of students' knowledge on their future professions. The key task of the round table at the end of the problem or section is to summarize the lecture activities. A lecture of this kind is allowed to be performed at the end of the entire direction



with the task of discussing the possibilities of using theoretical knowledge in practice as a resource for solving problems; in studying the material of subsequent academic disciplines; means of determining the upcoming professional activity. 2-3 teachers of related subject disciplines can take part in the round table as lecturers.

During the lecture, questions on the process of replication, translation, transcription, including their stages and meaning, were considered. The change of these processes with the help of physical or chemical influences was described, which aroused great interest among the audience: mutation, protein denaturation, destruction, ionizing radiation.

Live communication allows you to immediately ask a question to the lecturer, which is impossible when working with voiceless texts [7, p. 132].

Students of the 2nd year noticed that they really lack live communication, which contributes to easier assimilation of the material and increase personal self-esteem.

The results of the study showed that those teachers who participate in the round table lecture were perceived more favorably by students than those who did not. It is known that students who attend lectures by teachers who ask a lot of questions believe that the lecture is more stimulating.

It was found that students' satisfaction with the lecture format is higher when they actively participate in the educational process. Thus, an interactive lecture is an active participation on the part of the teacher and the student. This method of teaching attracts students' attention and allows them to receive instant feedback on how well the lecture material was understood. It also contributes to a higher level of thinking, problem solving and practical application of the studied material. In reality, an interactive lecture is a way to capitalize on the strengths of learning [8].

The «round table» helps to lead students to generalization, develop their independence of thought, learn to highlight the main thing in the educational material, develop speech and much more. As practice shows, the use of active methods in university education is a prerequisite for the training of highly qualified specialists and leads to positive results: they allow students to form knowledge, skills and abilities by involving them in active educational and cognitive activities, educational information passes into personal knowledge of students.

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