



Chapter IV. PROBLEMS OF EDUCATION AND UPBRINGING OF CHILDREN IN EDUCATIONAL INSTITUTIONS OF MOUNTAIN REGIONS

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ПЕДАГОГІЧНА ГАРМОНІЯ І ДИНАМІКА ЗАСТОСУВАННЯ ФОРМ, МЕТОДІВ, ЗАСОБІВ НАВЧАННЯ УЧНІВ

Анотація. У статті розглядається гармонічність як аналітичний принцип дидактики, який уможливорює визначити зв'язок, стрункність, співрозмірність органічного використання форм, методів, засобів навчання для побудови гармонічного навчально-виховного процесу. Базуючись на вказаному вище, використання педагогічної гармонії на сучасних заняттях є беззаперечно обґрунтованим. Авторами проаналізовані актуальні дослідження педагогів та науковців різних країн у галузі педагогічної гармонії, розглянуто питання взаємодії між учителем та учнем, становлення позитивних взаємин у класі, особливих аспектів створення сприятливого навчального середовища. Теоретично обґрунтоване та реалізоване педагогічне забезпечення підготовки майбутнього фахівця, що займається педагогічною діяльністю до гармонійної взаємодії з учнем. Розглянуто питання динаміки видозміни методів, форм, засобів навчання, яка допомагає створити задоволеність навчальним процесом як учневі, так і вчителю. Сформульовані визначення та умови педагогічної гармонії, які полягають у приведенні у відповідність організації освіти, і цільові установки, співставлення змісту, форми, методів навчання, перетворенні їх у виразні засоби педагогічного процесу, які спрямовані на створення задоволення учнів від відчуття гармонії в процесі навчання і пізнання світу, що оточує. Запропоновано оцінювати ступінь гармонічності побудови навчального процесу одним із таких рівнів: високий рівень, середній і низький. Наведена класифікація та вимоги до рівнів гармонічності побудови навчального процесу.

У роботі використовувалися такі методи дослідження: педагогічне спостереження, педагогічний експеримент, метод узагальнення незалежних характеристик.

Розглянуто деякі види мотивів навчання і підгрупи методів, які використовуються для формування цих мотивів. Показано, що знання форм і методів навчання, педагогічна інтуїція та педагогічний такт учителя допомагають створити гармонійну навчальну ситуацію

Запропоновано розв'язання низки проблем, що склалися в теорії та практиці педагогічного процесу під час організації навчального процесу.

Розглянуто типи уроків та простежено динаміку використання тих чи інших форм, методів і засобів навчання, застосування яких у своєму доборі породжує педагогічну гармонію.

Ключові слова: гармонічність, гармонія, педагогічна гармонія, форми, методи, засоби навчання і виховання.



PEDAGOGICAL HARMONY AND DYNAMICS OF APPLICATION OF FORMS, METHODS, AND MEANS OF TEACHING STUDENTS

Abstract. Actual research of teachers and scientists of different countries in the field of pedagogical harmony has been analyzed, the issues of interaction between the teacher and the student, the formation of positive relationships in the classroom, special aspects of creating a favorable learning environment have been considered. Pedagogical support for the preparation of the future specialist engaged in pedagogical activities for harmonious interaction with the student has been theoretically substantiated and implemented. The issue of dynamics of modification of methods, forms, means of training, which help to create satisfaction with the educational process for both the student and the teacher, has been considered. Definitions and conditions of pedagogical harmony have been formulated, which consist in aligning the organization of education and target settings, comparing the content, forms, methods of teaching, transforming them into expressive means of the pedagogical process, which are aimed at creating satisfaction of students from a sense of harmony in the learning process and cognition of the surrounding world. It is proposed to assess the degree of harmony of the educational process one of the following levels: high, medium and low. The classification and requirements for the levels of harmoniousness of the educational process are given.

Some types of learning motives and subgroups of methods used to form these motives are considered. It is shown that knowledge of forms and methods of teaching, pedagogical intuition and pedagogical tact of the teacher help to create a harmonious educational situation.

The solution of the problem of determining the correspondence of the formed level of knowledge of the student, the applied forms, methods, means of teaching and the achieved level of harmony of the pedagogical process is proposed. The types of lessons are considered and the dynamics of the use of certain forms, methods and means of education, the use of which in its selection generates pedagogical harmony, are traced.

Keywords: harmony, pedagogical harmony, forms, methods, means of education and upbringing.

INTRODUCTION

Formulation of the problem. Harmony is the law of pedagogy, which harmonizes the organization of education and target settings, helps to compare the content, forms, methods of teaching, turning them into expressive means of the pedagogical process, aimed at creating satisfaction of students from a sense of harmony in the learning process and cognition of the surrounding world (Paltyshev, 1995).

The conditions for the existence of pedagogical harmony are (Paltyshev, 2001):

1. The purpose of education should be aimed at the formation of a person who must have a deep knowledge of the surrounding world, the history of civilization, know the laws of its harmonious vitality, the rules of humanistic communication between people.

2. The content of education and its organization should correspond to the target setting and create conditions for a harmonious combination in the educational process of both measures to develop the health of students and measures to motivate learning in modern conditions.

3. Organizational forms and methods of teaching and education should take the harmony of the educational process, which includes the activities of the pedagogical team and students, allows them to be proportionally used to create an emotional, effective cognitive educational process that goes to the creative rethinking of the gained knowledge, and the process itself.

4. The means of training, according to the principle of harmonization, should be at the level of modern development of technology, meet the target, content, motivational aspects of training and education, helping to create harmony in training.

5. The created harmony can be considered as the result of educational process: the students cognition; knowledge about the surrounding world.

Harmony is an analytical principle of didactics, which allows to determine the relationship, harmony, proportionality of the organic use of existing forms, methods, means of learning to build a harmonious educational process (Reva, 2010). Therefore, the use of pedagogical harmony in modern classes is undeniably justified.

Analysis of recent research and publications. Teachers and scientists from different countries carried out research in the field of pedagogical harmony, they considered the interaction between the teacher and the student, the formation of positive relationships in the classroom, special aspects of creating a favorable learning environment (Buchkivska, 2000, Paltyshev, 2001). The following areas of research on the above issues may be outlined:

- the processes of pedagogical interaction, ways and means of its correction, features of interpersonal relations, their impact on the child's personality and the effectiveness of educational activities are studied;
- the directions of work for correction of ways of interpersonal interaction in preschoolers and junior schoolchildren are allocated, the gradual formation of interpersonal relations in adolescents with mental retardation is described, features of interpersonal interaction of the teacher with gifted children;
- the psychological distance is investigated as an indicator of the success of pedagogical interaction in the "teacher-teenager" system; the attitude of the individual to the observance of moral norms depending on the psychological distance is revealed.

In particular, the candidate of pedagogical sciences M. Paltyshev was engaged in the research and implementation of the paradigm of pedagogical harmony (Paltyshev, 1995). According to the author's judgments, the essence of this paradigm is the introduction of a new typology of lessons: an introductory lesson in the topic (section of the subject), a



lesson in communicating new knowledge, a lesson in practicing the acquired knowledge and mastering skills, a lesson in consolidating the acquired knowledge, a lesson in controlling knowledge, a lesson in eliminating gaps in knowledge, skills and abilities, (combined lesson), a generalizing lesson. The author emphasizes that, provided the correct selection of the attributes of pedagogy – from understanding the level of students to a particular manner of behavior of the teacher and, ultimately, the competent application of forms, methods, means of teaching, modifications of the typology of lessons and the use of certain didactic principles on them – and pedagogical harmony appears, which leads to students' interest in learning, to satisfaction with the learning results and, ultimately, to specific knowledge, skills and abilities, to a state of harmony in learning.

As evidenced by the recent work of M. Paltyshev the pedagogical process becomes more effective under the condition of harmonization. Conversely, in its disharmonious state, the implementation of quality education leads to a disproportion, imbalance of learning processes, in particular, in learning physics. This situation leads to the task of harmonizing the pedagogical process of value self-determination of subjects of education in a number of primary, basic pedagogical problems.

It is possible to correct the situation that has developed in the theory and practice of the pedagogical process in the organization of the educational process on a multidimensional methodological basis. It is the integration of the possibilities of these methodological approaches, which is carried out on the basis of coordination, complementarity through dialogue.

Therefore, a number of new problems need special consideration: axiological and pedagogical accentology of harmonization of educational systems; harmonization of education at all levels of its organization and scientific support, focused on life self-determination, self-development of subjects of activity and communication.

AIM AND TASKS RESEARCH

The purpose of the study is the theoretical substantiation and implementation of pedagogical support for the preparation of a future specialist who is engaged in pedagogical activities for harmonious interaction with a school student (student, applicant).

RESEARCH METHODS

The following research methods were used in the work – pedagogical observation, pedagogical experiment, method of generalization of independent characteristics.

RESEARCH RESULTS

As an assessment of the measure of harmony, some of its levels can be taken. We propose to assess the degree of harmony of the educational process one of the following levels – high, medium and low.

By a high level of harmony, we understand such a state of the educational process, in which there is a satisfaction of students with the learning process and a high level of knowledge.

The medium level of harmony corresponds to such a state of the educational process that does not fully satisfy all students and at the same time they do not achieve the maximum possible results in learning.

A low level of harmony is a state of the educational process in which there is chaos both in its construction and in the knowledge of students.

When assessing the harmony of the educational process, there is a problem of determining the correspondence of the formed level of knowledge of the student, the forms, methods, means of teaching and the achieved level of harmony of the pedagogical process. For example, the strength of students' knowledge is never achieved only in one lesson. It is gradually being born from lesson to lesson. In addition, each experienced teacher never considers a single lesson as a basis for students to gain solid knowledge. Such a teacher knows the number of lessons that are allocated to the study of the topic, section of the subject, knows how to differentiate between the main and secondary topics. That is, there are basic topics on which knowledge is formed and which will be used in other sections of the subject, and there are topics that begin and end, and the acquired knowledge will no longer be used in other sections.

Therefore, it is necessary to consider the types of lessons, to trace the dynamics of the use of certain forms, methods and means of teaching, the use of which in its selection generates pedagogical harmony.

Achieving harmony during training is a global task of the teacher, but, as the practice of many talented teachers proves, it can be achieved. Harmony in learning is achieved through the justified actions of the teacher. In this case, the following things play significant role: the teacher's approach to the formulation of the goals of learning, education and development during the study of the topic, the entire period of study, and his/her approach to the selection of the lesson material, and the properly planned alternation of lessons, and success in evaluating the activities of students, and, of course, understanding the principles of didactics, the ability to use their tools – forms, methods, means of teaching, education, and, as a result of the latter, the development of students.

Of course, the forms, methods, means of teaching are what every teacher knows, but not all teachers, using the same tools, achieve a good result in the students training.

Before considering this issue, it is necessary to mention the classification of teaching methods. Certainly, this is a global theoretical question that many scientists have been engaged in. However, the most common approach to this issue can be considered the one proposed by Yu. Babanskys (Babansky, 1982).

All teaching methods are divided according to their special functions:

- methods of organization and implementation of educational and cognitive activities;
- methods of stimulation and motivation of educational and cognitive activities;
- methods of control and self-control of educational and cognitive activities.

If we consider the first function of teaching methods, then the following subgroups of methods are distinguished:



a) methods of organization and implementation of sensory perception of educational information (perceptual methods);
b) methods of organization and implementation of mental activity of inductive, deductive and other nature (logical methods);

c) methods of reproductive and exploratory character (gnostic methods);

d) methods of managed and self-managed educational and practical activities (methods of training management).

Perceptual methods: verbal (storytelling, conversation, lecture, presentation, etc.); visual methods (illustrations, demonstrations, etc.); practical methods (exercises, experiments, labor actions, etc.).

Logical methods: inductive – from partial to general; deductive – from general to partial; analytical – analysis of events, phenomena; synthesis – combining and comparing phenomena and events.

Gnostic methods are: reproductive methods that characterize such a way of learning, in which the leading value is the memorization of the information reported by the teacher to students; problem-search (creative) methods that provide creative situations by the teacher, in which students are included in active reflections and thereby independently advance to knowledge: the method of problematic presentation of material; partially-search, or heuristic, method; research method of teaching.

Methods of learning management: organization of teaching activities by the teacher; independent work of students with the textbook, written work, laboratory work, experimental tasks, etc.

Considering the second function of teaching methods (stimulation and motivation of learning), it should be outlined that it is very important. We believe that the importance of this function lies in the fact that teachers do not pay detailed attention to this issue. From this, the learning process becomes not only uninteresting, but also pointless for many students. They only perform the function of a student – they learn as they are allowed. The teacher, deprived of these approaches, performs honestly the function of a teacher – uses the generally accepted methods listed above.

Motivation and stimulation of learning is one of the components of the teacher's activity, skillfully using it, a teacher can achieve good results in learning.

There are two types of learning motives – motives of cognitive interest and motives of duty in learning. According to this, there are two subgroups of methods: methods of forming an interest in learning and methods of developing duty and responsibility in learning.

The first include the following methods: the method of cognitive games; the method of educational discussions; the method of creating a situation of emotional and moral experiences (for example, success in learning), situations of interest, situations of cognitive novelty; the method of reliance on life experience, etc.

The second include: the method of persuading students of the social and personal significance of learning; the method of submitting requirements; the method of exercises and involvement in the implementation of requirements; the method of positive example; the method of encouragement and condemnation; the method of creating favorable communication.

The third function of the methods considers the control and self-control of students' learning. It includes the following well-known methods: methods of oral, written and laboratory-practical control; methods of programmed and unprogrammed control; methods of self-control (oral, written, programmed, etc.).

Of course, very rarely the teacher uses only one of the methods in its pure form. Most often it is a group of methods, it is a set of methods. However, it can be stated that with a particular activity of the teacher, one of the methods may be the main one, but it is applied, of course, in combination with others, depending on the situation. Therefore, knowledge of the forms and methods of teaching, pedagogical intuition, pedagogical tact of the teacher help them to create a state of harmony both in the relationship between the teacher and students, and during the organization of the student team to obtain specific knowledge.

Considering the means of learning, it should be noted that they are one of the important issues of the modern teaching process. We can often observe a teacher who works only with a board and chalk at the lessons. But it is supposed to be not enough. A modern student uses various types of household appliances in their life, such as computers and other gadgets, gets information from the Internet, and when he gets to such a lesson, his interest in learning disappears.

Often this is due to the fact that the teacher does not have certain means of teaching, however, it is possible that the teacher has various means of teaching, but cannot use them creatively, or does not want to do it at all.

Let us consider the issue of dynamics of modification of methods, forms, and means of training, which help to create satisfaction with the educational process for both a student and a teacher.

To obtain thorough knowledge there is no separate lesson, there is a system of lessons. It requires, during a closed cycle, alternation of different types of lessons, consideration of the appropriate actions of the teacher, the thoughtfulness of which generates pedagogical harmony.

First of all, it should be noted that the approach to the awareness of the teacher's activity in the lesson should be based on a holistic approach to its construction. And this means that the teacher must be able to clearly define the goals and objectives of this lesson, the end result, which he wants to achieve in the lesson. Then, in accordance with this, a teacher must select the content of each lesson, choose the forms, methods, means of teaching, education and development of students that will help him/her, moving from lesson to lesson, create a sense of harmony in the cognition of students.

We offer the following classification of types of training sessions by their purpose and contribution to the formation of the harmony of the educational process:

- introductory lesson in a new topic or section of the subject;
- a lesson in the presentation of new knowledge;
- lesson of consolidation of the acquired knowledge;
- a lesson of repetition of the acquired knowledge;



- a lesson of control of knowledge and skills;
- a lesson on correcting shortcomings and errors in students' knowledge.

Introductory lesson in a new topic or section of the subject. The main aim of this lesson is to create the idea about the topic or chapter that is going to be studied.

The following requirements are applied to the selection of the content of the lesson:

1. The teacher must first select the main thing in the entire cycle of these lessons and in the lesson to conduct a "red line" shaping the main idea of this content. (By demonstrating all the experiments that students will see in individual lessons, by drawing up flow charts of the content of the material, logical schemes of the presentation of the material, etc.).

2. If we consider that the main purpose of cognition is the knowledge of the surrounding nature and history of people, then this information should form the basis of this lesson.

3. The content of the lesson should include interesting facts, natural phenomena, information about the application of this knowledge in technology, historical information about the formation of knowledge on this issue.

4. Such a lesson should involve information on philosophy, using not only philosophical treatises, but also poetry, music, art, etc.

Forms, methods, and learning tools should be selected in such a way that students have a visual representation of the material that will be studied. It can be a teacher's lecture, which is accompanied by a variety of information, experiments and demonstrations, presentations, music, poetic lines, etc. It may be a discussion on the material that will be studied. It can be an intellectual dispute about the content of this section of the subject. The main thing is that the lesson should carry a large emotional and intellectual reserve of students' knowledge. It should be understood that this lesson does not form specific knowledge, but only informs about it. Therefore, the purpose of the lesson is not to obtain specific knowledge from this material.

The lesson of presentation of new knowledge. The purpose of this lesson is to form specific knowledge, achieve its understanding and memorization at the reproductive level. Therefore, the selection of content, the choice of forms, methods, means of training are subject to strict requirements – everything should work towards the goal. At the lesson, the teacher teaches the material, explains and repeats it several times, fixes it with students at the reproductive level. The main thing is that each student, leaving the lesson, should clearly know the main issues of this lesson.

Reproductive methods of teaching prevail in the classroom. However, everything depends on certain conditions. If a "strong class" is selected, or a teacher has already been working with the class for a long time, then at the beginning there is a search work on the topic – problematic issues are solved, a logical search for knowledge takes place, and then a statement of specific knowledge created by students can be observed. It is followed by reproductive processing.

Assessments at this level are inappropriate for several reasons. The key one is that they do not reflect the students' knowledge of this material.

Learning tools should not interfere with the main task of the lesson.

Methods: mobilization of the class for this work, motivation of students' educational activities in the classroom, clear setting of lesson tasks for students; teacher's talk. It is desirable to build it in separate interconnected portions, after telling which the material is repeated and fixed. After telling two or three "portions", the teacher repeats them more briefly; short notes by students of the most important material (formulas, graphs, definitions, etc.); processing the material at the reproductive level: reading the recorded, pronouncing aloud the basic concepts, formulas, repeating the explanation of the graphic record, etc. It should be remembered that the repetition of the same material should be at least 7 times in different forms. The teacher should repeat 1–2 times, strong students – 2 times, make notes in the notebook, read the recorded, after that there should be a repeated voiceover by the teacher, choral repetition by the whole class, etc.

The lesson of consolidation of the acquired knowledge. The purpose of the lesson is to consolidate knowledge at the reproductive level. First, the teacher together with the students recall the material of the previous lesson, then repeat the basic knowledge and, finally, the students are offered to start using the acquired knowledge. First again at the level of reproduction, and then at the creative level. The main thing in this lesson is to achieve the skills to use this knowledge.

The following requirements are applied to the selection of the content of the lesson:

1. A teacher should teach students to choose the most important information from the material of the previous lesson. Therefore, the previous work at home should be aimed at this.

2. The tasks should be selected to help each student to learn how to apply the acquired knowledge. At first, a teacher can demonstrate. Then the whole class can perform a typical task according to the submitted sample. Next, the teacher offers a higher-level task and discusses its implementation with the help of advanced students. After this discussion, the whole class frontal begins to perform it, and the teacher provides individual assistance to those who have not yet mastered everything. Then again, on a model, students independently perform tasks with the provision of individual assistance to some students by teacher.

So, from task to task, with the maximum independence of students, with the direct help of a teacher to some students, they are promoted along the path of mastering the ways of using the obtained knowledge.

Sometimes there is a problem, when 5–6 students quickly learned all the tasks. Then the teacher can involve them in the training of weaker students, providing them with all possible assistance. In this way, they achieve an increase in the quality of knowledge not only for weak students, but also for advanced ones, because they reach a higher level – they learn not only to apply knowledge, but also to teach others.

The lesson of repetition of the acquired knowledge. The main purpose of the lesson is to repeat the studied material at the reproductive level and provide students with the opportunity to learn how to use this knowledge at the creative level.



The lesson immediately offers creative tasks to students. This is either the formulation and solution of problem situations, or a general study of a situation by the whole class.

After such a creative beginning, the main core of knowledge can be repeated and a variety of creative tasks can be offered. Of course, it is better when the tasks go as their complexity increases – from simple to complex. Then even the weakest students will understand the course of events. However, sometimes you can offer students another option – to consider first the application of knowledge at a more complex, creative level, and then move on to simpler examples and tasks. This type of lesson is interesting because it is dominated by creative tasks of group and individual types. First, the students work together. After the teacher has seen that everyone understands and is able to apply knowledge at the creative level, individual tasks can be introduced, the level of which is selected already from the abilities of each student.

The tools used at this level are a range of tools available to the teacher, the equipment of the classroom. The degree of independence of students at this level increases dramatically, there is an opportunity for a teacher to give grades to all students.

The lesson of control of knowledge and skills. The lesson can be conducted (considering its structure) as a combined, which repeats and controls the knowledge of students, the ability to use it. The lesson of control of knowledge and skills is advisable to conduct at the end of the topic.

The lesson in any case gives the maximum opportunity for students to be independent.

The content, forms, methods, means of teaching at such a lesson should be selected in such a way that students enjoy the control of knowledge. The teacher should understand that the control tasks should be selected so that each student could demonstrate his knowledge both in a specific material and in the ability to use it. It is necessary to understand that the tasks are selected from those that have already been mastered by students during several lessons. But one or two tasks can be the ones that the students have not faced yet. Thus, double control is achieved: the first makes it possible to see how students can use what they have already learned; the second allows you to identify the ability to use knowledge in new conditions – on tasks still unknown to them.

The lesson on correcting shortcomings and errors in the knowledge of students. The purpose of the lesson is clear – to correct the shortcomings and errors of knowledge that were revealed during the control of knowledge. However, the forms, methods, means used by the teacher in such a lesson should lead to a state of students that would help them understand that they had mistakes and shortcomings in the course of their activities. Therefore, a conversation with students during the consideration of the tasks performed by students, some discussion of how and why it happened during the tasks will allow students to see that both sides are interested in good results – a teacher and a student. Involving the class to overcome the shortcomings in knowledge is an important point in the system of all lessons. Therefore, this lesson is also of a teaching nature. It will be interesting to students when the teacher not only lists their mistakes, not only shows how they need to be corrected, but also offers them certain tasks. Initially, these tasks should be at the level that was offered to students in the previous lesson, and only then at a higher level. Students should learn to feel the joy of being given tasks of an ever-higher level. At this level the tasks of previous competitions in the subject, or competitive tasks for higher education institutions are worth considering. The students should be informed about it.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

The solution of a number of problems that have developed in the theory and practice of the pedagogical process in the organization of the educational process is proposed. The solution of the problem of determining the correspondence of the formed level of knowledge of the student, the applied forms, methods, means of teaching and the achieved level of harmony of the pedagogical process is proposed.

Modification of methods, forms, means of teaching helps to create satisfaction with the learning process for both the student and the teacher. It has been proposed to assess the degree of harmony of the educational process one of the following levels – high, medium and low. The classification and requirements for the levels of harmoniousness of the educational process are given. The types of lessons are considered and the dynamics of the use of certain forms, methods and means of education, the use of which in certain selection generates pedagogical harmony, have been traced.

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