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У збірнику представлені матеріали VII Міжнародної науково-практичної конференції для студентів немовних спеціальностей, що висвітлюють питання філології, психології, педагогіки, методики викладання іноземних мов, історії, політології, екології, інформатики, менеджменту та економіки.

Для студентів вищих навчальних закладів, аспірантів, наукових та педагогічних працівників.

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RENAISSANCE OF ORTHODOX CHURCH IN UKRAINE IN THE SEVENTEENTH CENTURY AND PETRO MOGILA'S ROLE

End of the 16 century and first half of the seventeenth Polish government supported only uniate churches that were, unlike Orthodoxies, declared to be a legal church in Ukraine Belarus and Lithuania.

Thus orthodox had become effectively illegal and for some time they didn't had their own bishops. However uniates had their leaders, first metropolitan of Kiev, Galychyna and All-Ruthenia was Michael Rogoza whose successor Hypatius Pocij was one of the main ideologists of the uniate church and what's more important he was quite a zealot so it was only a matter of time for him to begin oppress Orthodoxes and forced many of them to transfer to uniate church. After his death he was succeeded by his own son who in turn had some ideas in his mind that were going to change uniates church forevermore. Valentine was thriving to reform church, monks' ways of life was first main change, then he'd began organizational reform at the same time with educational reform for clerks. All in all reforms proved to be a success as a result clerks got far better education than their orthodox opponents who at the time were in dire situation. Nevertheless nothing can last forever what is especially true for anything related to people so right after Valentine's death the uniate church slowly began to stagnate which in turn gave the orthodoxes a chance to recover from disasters of the previous century.

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PHYSICAL CULTURE IN THE PROCESS OF FORMING A COMPREHENSIVELY DEVELOPED PERSONALITY

Physical education is a pedagogical process aimed at physical development, functional improvement of the body, teaching basic life-important motor skills, skills and related knowledge for successful future professional activities

Physical education plays an important role as an important means of a comprehensively developed personality. The priority tasks of the education system are to educate a person in the spirit of a responsible attitude to one's own health and the health of others as the highest individual and social value. This is done through the development of valeological education, full-fledged medical care, optimization of the regime of the educational process, creation of an ecologically favorable living space.

Physical culture of the individual is a component of culture related to the system of physical education, organization of sports, special scientific experiments necessary for physical education and sports, public and personal hygiene, rational organization of active recreation.

Along with the term "physical education" the term "physical training" is used. It is used when they want to emphasize the applied orientation of physical education in relation to a certain activity that requires "physical fitness". This applies, for example, to

the physical education of military personnel, which is carried out in the form of special physical training.

Physical education as a pedagogical process aimed at the physical and spiritual improvement of a person, his mastery of systematized knowledge, physical exercises and methods of their independent use throughout life.

Therefore, the formation of the physical culture of a comprehensively developed personality, increasing the level of development of the physical culture of the teacher's personality will continue to be objects of a wide range of research and require detailed specification.

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ALLOCATION OF ALIMONY OBLIGATION TO THE INHERITANCE

Alimony obligations are gaining relevance both in the world and in Ukraine, because the significant impact of a low standard of living and the moral crisis of society, sharp socio-economic changes, in turn, lead to the appearance of a large number of divorces.

Alimony obligations occupy a special place among other institutions of family law, since their occurrence is due to the need of a certain person, due to certain circumstances, to receive financial assistance from a family member. Legal regulation of alimony obligations is enshrined in the Constitution of Ukraine, in particular in Articles 51-52, as well as in the Family Code of Ukraine.

According to Article 141 of the Family Code of Ukraine, parents have equal rights and responsibilities in relation to the child, i.e. the duty of maintaining the child is assigned to each of the spouses [1]. Article 180 of the Civil Code of Ukraine also establishes the obligation of parents to maintain a child until he reaches the age of majority [1]. Therefore, parents have an obligation to support their children who need financial support, regardless of whether they are married or under any other circumstances.

Over the past years, in order to improve the regulation of these relations, a number of normative legal acts were adopted, which changed the procedure for collecting alimony and increased its amount; mechanisms have been introduced to hold alimony payers accountable, in particular dishonest ones; strengthening the protection of the rights of children deprived of parental care [2; 3].

Regarding the very definition of alimony obligations, there was no unanimity among the opinions of civil scientists. For example, E.M. Vorozheykin sees alimony as the usual assistance of any one family member to another [4, c. 75]. At the same time, scientists such as Yershova N.M. and Masevich M.G. consider the alimony obligation as a certain violation of stable family ties, when there is no maintenance on a voluntary basis [5, p. 53].

In our opinion, it is appropriate to define exactly O. Y. Pergament, who sees the alimony obligation as a certain obligation of a family member, protected by law, to provide material assistance to other family members, which is also an obligation, established by law [6, c. 20].

Regarding the latest innovations, we can single out the decision of the Supreme Court false connection of the obligation to pay alimony for child support with the person of the alimony payer.

The argument for this is a court case [7], where the plaintiff's husband died with a significant alimony debt. The court, based on Art. 194 of the Civil Code of Ukraine and 1218, 1282 of the Civil Code of Ukraine, decided in the Resolution that the heir is still obliged to pay the alimony debt of the father within the value of the received inheritance, because the debtor cannot be exempted from repayment of alimony debt under any

circumstances. Therefore, after the death of the alimony payer, the obligation to pay unpaid alimony passes to the heir.

That is, it is wrong to associate the death of the alimony payer with the termination of alimony payments and not including them in the inheritance.

It is worth emphasizing that alimony arrears of the testator can be collected from the heir without compensation for the late payment of alimony and without the obligation to further pay alimony, because this arrears are not part of the inheritance.

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THE ARMY IN THE CONTEXT OF THE STATE: THE HETMANATE OF PAVLO SKOROPADSKYI

Military-state building is an important component of asserting the independence of the state and its national security, especially in times of political crisis and aggravation of the geopolitical situation in the world.

The purpose of our research is to reveal, on the basis of documentary sources, the approaches to solving the military issue and the peculiarities of the formation of the army during the Hetmanate of Pavlo Skoropadskyi.

The events of the end of April 1918 fundamentally changed the state system on the territory of Ukraine. As a result of the bloodless coup, general Pavlo Skoropadskyi, elected by the hetman, became the new leader. He was a military personnel, which is why he had no illusions about the militia, and almost immediately began the formation of the army. [3]

Thus, the law on the registration and enlistment of officers, non-commissioned officers and cadets of the former Russian army [1] who are in the Ukrainian state from October 20, 1918 determined that all officers and non-commissioned officers of the former Russian army under the age of 35 years old must report to the local military commander within seven days for registration.

In case of positive implementation of the intended program, the total strength of the Ukrainian army in the spring of 1919 should reach 310,000 soldiers [3, p. 271].

In accordance with the Law on Replenishment of the Army and Navy of the Ukrainian State dated November 8, 1918 [2], a temporary conscription of young people born in 1899 was introduced. First of all, it was planned to recruit 85,000 recruits.

However, due to the fact that Skoropadsky's regime was short-lived, at the end of the fall of 1918, the Hetman's army numbered 65,000 men. It is worth noting that there were approximately 40,000 soldiers in combat formation [3, p. 271].

Thus, the policy of creating a regular, capable army on the basis of general mobilization of the population during the days of the Ukrainian State changed the approach of the socialists of the Central Rada in solving the military issue. But the difficult internal and external situation, the loss of the Central countries, on which the Hetmanate relied, in the war, did not allow to complete the creation of the Ukrainian army and demonstrate its effectiveness.

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USE OF SOCIOLOGICAL TOOLS IN MARKETING RESEARCH

The idea of marketing as an integral part of the development of modern economic relations in the field of production and consumption, is not only to inform and promotion of goods and services in the market, but, above all, in providing the possibility of information exchange between consumer, seller and producer. It is a kind of feedback, which in economic theory is often interpreted as the interaction of supply and demand, taking into account non-price factors (a signal from the consumer to the producer).

However, if a variety of marketing strategies are good enough provide the potential consumer with information about the goods or services, then only in some cases such strategies involve the study of requests of consumers themselves, those requests that go beyond "voting" purchase.

Taking into account the opinion of a potential consumer about a product or (especially) service can be proactive and help the manufacturer to almost completely meet the needs in the form in which it is dictated by the consumer himself. Here we should keep in mind marketing as an auxiliary and often universal market instrument, and in no case as a way to "sell" any product of any quality at any price.

In the direction of studying the needs of consumers even before the purchase, in my opinion, sociological tools can be the most effective. These are scientific methods of collecting information used in sociology and by its range of application, the possibility of modifying the questionnaire (in the case of a survey) are universal for studying public opinion (including the division into territorial, economic or market areas).

Conducting sociological market research goes far beyond "checking" the availability of niches or opportunities for brand development. In the case of organization of sociological research in accordance with existing scientific principles and methodological requirements, the marketer can receive unique importance information about a variety of potentials of specific product, service, territory, market segment, groups of potential consumers, price expectations.

In addition, well-organized sociological research has potential to study the subjective attitude of potential consumers to certain groups of goods, as well as wishes and recommendations.

A separate method of research, which is to some extent common in marketing activities is the method of focus groups. However, in the sense of representativeness (reasonable scientific mathematical and statistical representation of the population by quantitative and qualitative characteristics and parameters) the results of mass polls, content analysis (study of documents), expert surveys, experiments can be much more interesting.

Methods of sociological research, which are already inherently and functional specificity are aimed at studying a variety of aspects of society can become an essential tool for obtaining empirical data for marketing.

On the other hand, the use of sociological tools provides orientation of each individual marketing strategy to the client, focusing products and services to the needs of consumers, rather than "selling for the sake of selling".

The use of sociological tools in marketing research makes it possible to make marketing an effective factor not only at the stage of implementation of the proposal, but already during the formation of demand.

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RIEMANN'S THEOREM

The Riemann Hypothesis is one of the seven millennium problems, each of which will receive a \$1,000,000 prize from the Clay Mathematical Institute.

2) What is Riemann's theorem.

Riemann's theorem on conditionally convergent series is a theorem in mathematical analysis that states that by rearranging the terms of an arbitrary conditionally convergent series, one can obtain an arbitrary value. This fact shows the difference between conditional convergence and absolute convergence: if a series converges absolutely, then it will converge to the same value regardless of the permutation of its elements.

3) The essence of the theorem.

Let a number series be given that converges conditionally, then for an arbitrary number you can change the order of the elements of the series in such a way that the sum of the new series becomes equal to this number. Moreover, it is possible to rearrange the elements of the series in such a way that the sum of the series tends to $+\infty$ or $-\infty$ or does not tend to any limit at all, finite or infinite.

4) The meaning of the theorem for students and teachers.

Riemann's theorem often occurs in mathematical analysis when studying the integral. It helps students a lot in understanding and makes it easier for teachers to explain. The topic of the integral and the boundary always intersects with the Riemann Theorem and makes the same topic easier and more understandable.

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THE ROLE OF DIGITAL TECHNOLOGIES IN PBL EDUCATION

Digital technologies are important elements in pedagogical activities and belong to very important factors that influence the quality of educational processes and services. Rapidly changing developments and expanding roles in the educational environment require students and teachers to develop computer skills. The educational goals of using digital technologies in education include facilitating basic knowledge acquisition, encouraging collaboration with other students and learning team-based work, improving decision-making, improving skill coordination, engaging retain information, and providing feedback for teachers, preparing students for the future.

Digital technologies such as podcasts, videos with flipped classrooms, mobile devices with applications, video games, simulations, and wearable devices (3D glass) are some of the techniques available to address the changing educational environment.

Research today shows that there are many different approaches to developing the presentation of classes and involving computer technologies. In our article we analyze how it can be accomplished through practicing problem-based learning (PBL), applying a new model for teaching or studying, and encouraging students to use various tools and applications.

Problem-based learning is one of the student-centered approaches to learning which enables the students to work cooperatively in small groups for seeking solutions

to situations/problems and has been approved by a number of higher educational institutions in the world.

PBL's main idea is to provide students with an integrated set of knowledge, skills, and attitudes to become independent problem solvers and better knowledge seekers, effective team players, and lifelong learners.

This article analyses what factors of digital technology integration might contribute to the enhancement of students' learning engagement and the improvement of their academic performance and how the PBL environment contributes to facilitating the process.

To achieve the results of our findings, 30 students of Zhytomyr Ivan Franko University were involved. A questionnaire consisting of 27 questions was used. The survey was conducted in September-October 2022.

To sum up, the finding suggested that digital technologies positively affect students' academic performance when integrated into the PBL environment.

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AN 8-HOURWORKING DAY: HOW FRENCH WORKERS ACHIEVED IT

France has always been a country with traditionally developed and socially oriented labor and democratic movements. The victory in the war caused a surge of patriotic feelings among the majority of French workers. The rise of the labor movement was closely related to the economic crisis of 1918-1921 p. However, strikes were rarely political in nature. Without rejecting the idea of "social peace", workers fought for their economic rights. The main demands were the introduction of an 8-hour working day and an increase in wages.

The strike movement reached its peak in 1919-1920, when more than 1 million people participated in it annually, that is, 3-4 times more than in 1917 or 1918. One of the largest demonstrations was the railway workers' strike in May 1920, during which the demand for the nationalization of the railways was put forward.

During this period, the influence of the Socialist Party of France, which built its activities on a social-democratic basis and called for socially significant reforms, grew significantly. It significantly increased its ranks at the expense of demobilized workers and soldiers. The Socialist Party grew more than 5 times in just two years – from 1918 to 1920.

The General Confederation of Labor - the largest trade union organization in France - also increased its influence on the labor movement. In 1920, left-wing radical socialists founded the Communist Party of France (CPF). its formation was closely connected with the Comintern.

In general, none of the left-wing political parties or trade union centers were able to lead the labor movement in the country. From the end of 1920, the decline of the mass labor movement began in France.

In 1924-1929 p. in France, as in other Western countries, stabilization and development of the economy took place on the basis of the growing political stability of French society, the restoration of democracy. The high rate of industrial development of France in those years is explained by the receipt of reparations from Germany (9 million marks in gold), the use of Saar coal and Lorraine ore, and the availability of cheap labor in the colonies. In addition, in the interwar period, France turned into a kind of Mecca for foreign tourism, in particular from the USA, which contributed to the development of the service sector.

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SOCIAL WORK AS AN INTEGRAL COMPONENT OF MODERN SOCIETY

In modern life, the problem of loyal solution of social problems of the population is spreading. Social work in modern realities is considered as: academic

discipline, professional activity and science. It is worth noting that in the vortex of recent events, social work is gaining momentum.

Social work acts as a primary link and mediator between subjects and objects of social assistance. The relevant role of social work is connected with the emergence of a considerable number of difficult social problems in the whole world. Certain problems are the reason for many discussions and require a faster solution.

In modern realities, it is very difficult to imagine a society in which social assistance does not exist as a science, professional activity or academic discipline.

Social work is a relatively young discipline, it plays an important role in society. This role is manifested in referrals for help in solving problems.

Social work is oriented towards an altruistic attitude towards each other, excludes selfishness, disrespect and indifference. Social work is designed not only to help the needy, but to educate them in self-help.

At the center of social assistance is a group of people or an individual who needs support from the outside.

Social work as a science is becoming increasingly competitive alongside other sciences and professional activities.

Social work as an integral part of modern society enables people to deal with problems by paying attention to their inner abilities to take a better place in life. The uniqueness of social work lies in the fact that by solving one problem, it can automatically involve and start solving related and derivative problems, improving and changing individuals, society and the life of every single person for the better.

In modern conditions, the fundamental feature of social work as a profession is its universal nature, since its substantive and instrumental aspects accumulate elements of related professional fields (pedagogy, sociology, psychology, etc.). At the same time, it acts as an important element in the implementation of the state's social policy, ensuring its viability and effectiveness.

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ONOMASTICS AND DEFINITION OF THE CONCEPT "PROPER NAME"

For a long time, the term "onomastics" meant the study of anthroponyms, therefore onomastics is a special historical discipline that studies proper names and their formation, development and functioning in language and speech.

Proper names have three main sources of origin: the transition of a lexical unit into a proper name, the transition of a proper name from one level to another, borrowing of foreign proper names. They can be created artificially.

M. P. Kochergan notes that proper names serve to distinguish the object, phenomenon or person named by them from a number of similar ones for its identification and individualization [1, p. 186].

Onyms contain information about the characteristics of an object, phenomenon or person, historical period, belonging to a certain culture, possibly giving a certain evaluative or emotional characteristic.

The process of translation is a rather complex activity, as the author uses various artistic means and a kind of unique style, which the translator must reproduce in the

source text. A special obstacle is the translation of proper names, in particular those that have a specific function, for example, allusiveness or eloquence, vivid imagery.

In order to preserve the adequacy of the translation and all communicative norms, the translator should use lexical and grammatical transformations and can choose a strategy of alienation or domestication in order to reproduce the author's style and convey the idea of the work to the reader. In addition, onyms can be part of a word game, and therefore often require an additional search for deciphering information using the context.

In general, translation experts distinguish 4 ways of transferring onyms from English to Ukrainian: 1) transcription - transferring the sounds of the original language with the corresponding signs of the source language; 2) practical transliteration – accurate transfer of signs of one language into corresponding signs of another; 3) tracing is a literal translation with the aim of preserving the original semantics as much as possible; 4) transposition – replacing an element with one adapted for the target audience.

Sometimes the onym is translated using an expression that literally conveys the meaning of the name of the original text, which is called tracing paper. The tradition of transcribing from time to time does not make sense, because when the author intended a deep meaning embedded in a certain onim, the translator should not use this method. Tracing usually helps to avoid possible translation problems and incomplete understanding of the text by the reader.

Analyzing the nomination system of an artistic work, it is necessary to use the data of literary studies, because the author often chooses his own titles when the plot, ideological and thematic direction of the work, behavior and character of the characters have already been determined. By choosing names that allude to certain events, characters, literary works, the author relies on the awareness and background knowledge of the reader, who must discern the message he was trying to convey.

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A STUDY OF AFFECTED QUADRATIC IN AN SCHOOL COURSE

The theory of equalizations in a school course occupies a leading place. It is related to that most tasks of the applied maintenance are taken to untiing of different types of equalizations. Among them a leading place belongs affected quadratic as a decision of most equalizations that or by another character erected to square.

In practical activity often there are equalizations including square or such, the decision of that is taken to square decision of that needs long calculations that are bulky and not always result in desirable result. And, as a result, there is a question: or there are more simple rational and elegant methods of their decision. In a school course the bread-winners of education meet with a few kinds affected quadratic and work off their decision after the known formulas.

However the program of school course of mathematics does not provide for at the level of standard an acquaintance of bread-winners is educations with other receptions, that for large amounts of equalizations are more rational and simple. Among such receptions - application of properties of coefficients of complete affected quadratic application of theorem of Vieta.

Application of these receptions to enough not simple affected quadratic and equalizations the decision of that is related to square, it is necessary to show to the students. They have in future to gather additionally comfortable methods, that will provide forming of receptions of analysis, generalization, algorithmization.

Next to formulas it is necessary for being of chums of affected quadratic to give and formulas that apply at certain dependence between coefficients complete affected quadratic, that students they were well memorized and used in future.

1. Use of properties of coefficients complete square equalization.

For equalization $ax^2 + bx + c = 0, a \neq 0$ (1)

If $a + b + c = 0$, then $x_1 = 1, x_2 = c/a$

If $a - b + c = 0$, then $x_1 = -1, x_2 = -c/a$

If $b = a^2 + 1, a = c$, then $x_1 = -a, x_2 = -1/a$

If $b = a^2 - 1, a = -c$, then $x_1 = -a, x_2 = 1/a$

If $b = -(a^2 + 1), a = c$, then $x_1 = a, x_2 = 1/a$

If $b = -(a^2 - 1), a = -c$, then $x_1 = a, x_2 = -1/a$

Will give an example decision of equalizations.

To untie equalization

$$4271x^2 - 4272x + 1 = 0$$

Decision

As

$$a + b + c = 4271 - 4272 + 1 = 0,$$

$$\text{then } x_1 = 1, x_2 = c/a = 1/4271$$

Answer: $1/4271, 1$.

2. Use of theorem of Vieta

The theorem of Vieta plays a large role in untangling of affected quadratic as the any complete affected over quadratic can be brought to erected what on occasion can be untied orally. It costs the bread-winners of education to show the examples of application theorems to equalizations, to that, on the first look, applying her is impossible.

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CREATIVE MANAGEMENT AS A GUARANTEE OF MODERN EFFECTIVE MANAGEMENT

A modern enterprise operating in a complex socio-economic environment must constantly create and implement various innovations to ensure effective operation in a market economy. The success of economic development of business critically depends on the introduction of innovations in its activities and the formation of competitive advantage.

In Western management, the management of new ideas is called "creative management" which is part of innovation management. Creative management is implemented in the pre-project and project phases of the innovation cycle and its task is to form and select new ideas for practical implementation in innovation projects.

In modern management, the management of the formation and use of creative potential is referred to "creative management". Therefore, the introduction of creative management in our country has become important.

Creativity development in Ukraine takes place mainly within the framework of training companies. Short-term training in the development of innovation potential for managers with a focus on highly educated and experienced professionals has become widespread. However, short-term learning does not solve the problem as the development of sustainable creative skills can only be carried out regularly over a long period of time.

Therefore, it is necessary to reconsider the existing system of education: the development of creativity as a basic professional competence is the goal of the entire period of study. In modern conditions, creativity and its factors are determinants of successful management that contribute to rapid decision-making, development of

original strategies, innovation and implementation of other important management functions.

The introduction of a creative organizational model is also associated with solving practical problems such as creating organizational competitive advantages, recovery and development of unprofitable enterprises and resource-intensive industries through new technologies and methods; staff development is mainly concerned with the effectiveness of the organization of creative work. Creative management is a specific management function in the enterprise management system. The purpose of its creation is to organize favorable conditions for the creative development of labor and personality, the accumulation of creative ideas and solutions in the form of scientific and technical information, solving production and economic problems of the organization or economy; open new opportunities for its development.

Thus, in the modern management system prefer the creative type of enterprise management. Creative management significantly affects the goals of the enterprise, its functions, management methods and decision-making. Creative management style allows you to make the most of the existing innovation and investment potential of the enterprise, using material and human resources. The introduction of a creative management system in modern enterprises permits you to gain a competitive advantage in the world markets.

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PERIODIC TRENDS

Periodic trends are specific patterns that are present in the periodic table that illustrate different aspects of a certain element.

They were discovered by the Russian chemist Dmitri Mendeleev in the year 1863. Major periodic trends include atomic radius, ionization energy, electron affinity, electronegativity, valency and metallic character. These trends exist because of the similar electronic configuration of the elements within their respective groups or periods and because of the periodic nature of the elements. These give a qualitative assessment of the properties of each element.

So, the periodic table became a classification of chemical elements according to the electronic structure of their atoms. In this connection, it became necessary to change the wording of the periodic law, which today reads as follows: the properties of chemical elements, and therefore the properties of the simple and complex substances formed by them, are periodically dependent on the charge of the nuclei of their atoms.

Humanity's knowledge of substances is constantly growing, and the periodic system is constantly being improved. A period is a horizontal row of the periodic system of chemical elements, in which the sequence of atoms is marked according to the growth of the charge of the nucleus and the filling of the outer electron shell with electrons.

A group is a chemical element located in one column of the periodic table of elements and characterized by similar chemical properties due to common features in

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INTERACTION OF THE CLASS TEACHER WITH PARENTS ON THE BASIS OF PARTNERSHIP

Like most countries in the world, Ukraine is also improving its education system, because today's children are different from previous generations, they live in a constantly increased flow of information, the expansion of means of communication, the use of new methods of searching and processing information.

That is why the MES developed the concept of the "New Ukrainian School" in 2016, so that it would satisfy all the needs of the participants of the educational process, experts, scientists, educators, and parents were involved.

Under the conditions of the reform, the following positions underwent the greatest specification and change:

- 1) pedagogy of partnership
- 2) readiness for innovation
- 3) new standards and learning outcomes
- 4) school and teacher autonomy

5) financing of education

Basically _ pedagogy of partnership - communication , interaction and cooperation between the teacher, student and parents. Pupils , parents and teachers are united common goals and aspirations , are voluntary and interested like-minded , equal participants educational process responsible for the result. The school has to initiate new , deeper involvement family before construction educational and professional trajectories child _

The new school will help parents acquire special knowledge of stages development child , effective methods education in a child strong aspects of character and virtues depending from her individual features . Dialogue and multilateralism communication between students , teachers and parents will change unilateral authoritarian " teacher " - " student " communication [1, p. 18]

Interaction of the class teacher with parents can be carried out in various forms using various methods of pedagogical activity. These are usually collective and individual forms of interaction.

The most common forms of collective interaction are:

- parents meeting
- parental lectures.
- dispute.
- open classes for parents. [2, p. 28]

Individual forms of interaction are:

- visiting parents;
- pedagogical consultation;
- individual consultation;

Thus, despite changes in the educational process, partnership pedagogy should remain key in the interaction between parents and the class teacher.

This interaction can take place thanks to various forms of work, including the involvement of parents in the process of education and upbringing with the help of communication in social networks and messengers , help during the preparation of students' homework, providing recommendations on the formation of an educational

environment, conducting trainings to avoid unforeseen conflict situations in team. Participants in the educational process should listen to each other's advice and find free time. [3, p. 151]

It is the unity of the interaction of the class teacher and parents that can effectively influence the development of the student as a personality, comprehensively developed, a patriot of his country, a student who is able to make independent, balanced decisions, respect the opinion of others, and be an innovator.

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MODERN TOOLS OF 3D MODELING OF OBJECTS

Computer technologies are developing very quickly and there is no field of activity in which they are not used. 3D technologies are no exception.

Previously, images were created on a plane (in 2D format) - on paper, canvas, wood, etc. So you could see only one side of the object. If there was a need to see everything, then it was necessary to draw several pictures. 3D graphics allow us to create an image digitally, on a computer, and view it from all angles. Special editors (Blender, 3ds Max, Maya, Cinema 4D) are used for this.

In computer graphics, a 3D model is a three-dimensional figure in space, created in a special program [2].

A digital model can be created based on detailed descriptions, photos, and drawings. A 3D model can convey the size, shape and texture of an object. The creation process is called 3D modeling [2].

3D modeling allows you to create and visualize final products, edit and improve projects. It allows you to realize your ideas before they become reality. Many of the objects we see around us were first designed in a 3D design program before they were even created.

With the help of 3D computer modeling, various tasks can be performed, ranging from entertainment, such as creating animated cartoons and models for advertising, to the modeling of really important scientific objects that can be used for research in chemistry and physics or medicine, for example , the developed models can be used to print organs on 3D printers.

The purpose of this article is to research modern modeling methods, a detailed review of this process, software tools used for such tasks.

A computer model is used to convey dimensions, types of materials to the person viewing the project. For example, computer components were first created in a 3D modeling program, the shape and cost of each part was analyzed, and then all of this was sent to the manufacturer.

Three-dimensional computer modeling makes the product design process more efficient.

There are several methods of creating 3D models, but they all boil down to two main ones: creating a model in a 3D modeling program or using a 3D scanner to convert real objects into digital models.

The first method to create a 3D model is to start from scratch using a special 3D modeling program.

The advantage of this method is that it allows you to create something that doesn't exist yet - something completely unique, like a weird creature for a video game - or something that already exists but can't be scanned.

For example, if a model of a famous building located in the distance is needed, it is easier and less expensive to create a 3D model from scratch using reference materials such as photos and videos, a description of the object, without having to travel to the location for 3D scanning. Or when you should do something completely new that has not yet been created.

This method includes: 3D sculpting, parametric and polygonal modeling. [1]

The second method of creating 3D models is scanning. With the help of a 3D scanner, it is possible to make an accurate computer model of a real object, a person or an environment, unlike CAD or polygonal modeling, which allows you to develop a model completely from scratch. This method can be used on its own, but more often as a supplement, to scan something that will be loaded into a CAD program for inspection.

So, two methods of creating 3D models can be distinguished. If you need to create something new that does not yet exist, then it is better to model from scratch using special programs for 3D modeling.

But if you need to reproduce a model of an object that already exists, you can use a 3D scanner. It will help to show the model of the real object as accurately as possible and save your time and effort.

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LANGUAGE FEATURE OF IRONY

“Irony” tends to be used as an umbrella term for a number of distinct phenomena (e.g. Sperber 1984; Haverkate 1990; Kreuz and Roberts 1993; Simpson 2011). One of them is situational irony or irony of fate (Lucariello 1994; Shelley 2001; Colston and Gibbs 2007). It refers to the state of affairs or events which is the reverse of what has been expected. Irony may also be defined as a trope, rhetorical figure or figure of speech (e.g. Colebrook 2004), also sometimes called verbal irony. The present volume focuses on this type of irony, which is of paramount importance in linguistics.

The overview below is meant to indicate the directions in contemporary linguistic studies on irony, as well as a few of the most crucial issues elaborated in

this extensive and heterogeneous field of research. Humor researchers must adopt findings from the existing scholarship on the trope taken as a whole in order to elucidate the characteristics of humorous irony. Humorous irony, in turn, must be amenable to the same interpretative frameworks and analyses as nonhumorous irony, but it will also manifest distinctive features stemming from its status as a verbal humor form.

Over the past few decades considerable ink has been spilled on the trope of irony in various fields of linguistics, in particular semantics, cognitive linguistics, sociolinguistics, and pragmatics. Irony is addressed from the whole gamut of scholarly perspectives, such as developmental studies (e.g. Creusere 2000) or socio-pragmatics (e.g. Dews et al. 1995; Jorgensen 1996; Colston 1997; Gibbs 2000).

The range of research topics is infinite, as irony is a complex and internally diversified linguistic phenomenon. Therefore, even the basic definition of irony has been the subject of a heated debate for decades.

The interdependence between humor and irony is a distinct problem. A general consensus prevails both in folk knowledge and in the academic literature that irony tends to promote humor. Apart from pursuing other communicative objectives, an ironic speaker may intend to amuse the hearer (Kumon-Nakamura et al. 1995; Dews et al. 1995; Kreuz and Glucksberg 1989; Kreuz et al. 1991; Littman and Mey 1991). This is why irony is commonly viewed as a linguistic phenomenon that is a natural subject of humor studies. However, it should be noted that humor and irony are two distinct phenomena, and the latter can, but does not need to, be humorous.

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WAYS OF LEARNING PHYSICAL VALUES CULTURES

Physical culture has great potential for the creation of a personality in bodily-spiritual unity. Neglect of this potential is characteristic of the modern situation, leads to partiality the formation of a person who is anti-cultural in nature. Namely, through the individual there is an influence on society. So, for the society to be successful development needs to follow the path of self-improvement of a person through the means of culture.

In solving this problems of physical culture must be real, worthy place. Modern society has realized the importance physical culture of the individual. Higher non-special physical education provides opportunities for acquisition students experience motor activity, classes physical education and sports, special knowledge and skills needed in academic and elective professional activity.

Physical education in essence and there is a culture that is purposefully instilled, is brought up in the personality. Cultural development of personality, including and the development of physical culture in general, is accompanied by the accumulation of life experience, which is delayed. Assimilation of different personalities there may be elements of physical culture uneven School experience of physical education activity or is assimilated and expanded students, which is accompanied by restructuring personal system of attitude to physical values culture (comprehension of meaning), or completely neglected. Complete or partial absence of the original valuable attitude to physical culture leads to the fact that in the process of physical education education creates the illusion of physical culture formation student. Physical culture as the goal of cultural the formation of the student is not specific enough, and therefore in practical activities of physical education departments. Higher education institutions are

replaced by more specific and achievable ones goals, for example, physical fitness. It explains the fact that physical training of students was and continues to be the main reality the base on which both diagnosis and formation of physical culture of the individual. The result of such formation of physical culture is not only insufficient activity in classes, weak motivation and interest in the subject, low level physical functional readiness, and full of it rejection after passing the tests, even before the end university Formal assimilation of values by students physical culture is a big problem and a threatening trend that explains the indifference to values related to physical culture. Formal assimilation of the values of physical culture, no fixed at the personal level, has no effect education If there is no external control (completion of the course of physical education, university) and internal value attitude to the physical culture, the state of subjects also changes, which assessed by researchers as a low level formation of physical culture.

Formation of personal physical culture can be considered completed if the subject independently makes a conscious free choice in favor offered to him during the educational process cultural values. So, physical education the education of the individual must be fixed in it internal characteristics, and its external manifestation there will be a practical activity.

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CURRENT PROBLEMS OF THE TRANSPORT DEVELOPMENT IN UKRAINE

It is important for the development of the state economy to increase the role of the transport, which ensures the livelihood of the population, defense capabilities and the development of highly effective foreign economic relations.

The transport system of Ukraine is represented by various types of transport: rail, road, sea, air, etc. The result financial and economic crisis in Ukraine caused by the war is that the output of industrial and construction products significantly decreased, led to a decrease in demand primarily for freight transportation in almost all kinds of transport.

Today, the transport sector of Ukraine economy as a whole satisfies only the basic transportation needs of the economy and the population. The level of safety, indicators of quality and efficiency of passenger and cargo transportation, energy efficiency, technogenic load on the environment do not meet modern requirements. The transport and operational condition of roads is unsatisfactory.

Ukrainian seaports in terms of quality and technical characteristics, such as depth, means of transshipment and storage, technical condition of berths and equipment, level of automation and computerization, remained at the level worse than last year. Part of the civil airports are closed with the beginning of the war.

There is a lag in the development of transport infrastructure, transport and logistics technologies, multimodal transportation, and the level of containerization, which causes a high share of transport costs in the cost of products.

A heterogeneous competitive environment has developed in the transport complex: from road and river transport, which was completely privatized to 100% state ownership of railway transport and seaports.

Therefore, the existing transport infrastructure needs further modernization. To implement the tasks of increasing the efficiency of the functioning of the domestic transport system and the quality of transport services, it is necessary to create legally established conditions that stimulate the inflow of domestic and foreign investments in transport infrastructure projects.

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THE TRAGIC FLAW AND THE TRAGIC HERO IN OEDIPUS

Oedipus is a mythical Greek king of Thebes. In Greek mythology he accidentally fulfilled a prophecy that he would end up killing his father and marrying his mother, thereby bringing disaster to his city and family. Oedipus Rex also known as Oedipus The King is a classic play by Sophocles and has stood the test of time and included as required reading in many educational settings.

In Sophocles' play the main character Oedipus is a prime example that embodies characterization of a "tragic hero". Aristotle defined a tragic hero rather strictly as a man of noble birth with heroic qualities whose fortunes change due to a

tragic flaw or mistake (often emerging from the character's own heroic qualities) that ultimately brings about the tragic hero's terrible, excessive downfall". Aristotle says that the tragic hero should have a flaw and/or make some mistake. The hero need not die at the end, but he must undergo a change in fortune. In addition, the tragic hero may achieve some revelation or recognition about human fate, destiny, and the will of the gods. Aristotle quite nicely terms this sort of recognition "a change from ignorance to awareness of a bond of love or hate" (Bloom Harold).

According to Aristotle, a tragic hero should be a high-minded, renowned and a prosperous person who is neither superlatively good nor wholly vicious corrupt. He undergoes sufferings and "*Anagnorisis*" which means realization of the truth or a change from ignorance to knowledge. But it is not because of any depravity in his character but from "*Hamartia*" which means tragic flaw or error of judgment or horrible acts of ignorance leading to tremendous suffering and a fall from his high status and his punishment should exceed his faults. Moreover, the "*Peripetia*" which means the downfall or reversal of fortune of a tragic hero should arouse feelings of pity and fear among the audience (Marjorie Barstow).

Oedipus does fit being a tragic hero, born to King Laius and Queen Jocasta thereby fitting the Noble Birth. Due to a message that his parents received from an Oracle that their son would kill his father and marry his mother and bear children. They chose to send their infant son away to prevent this prophecy from coming to fruition. A shepherd given the infant pierced and bound his feet to take him to the mountains to die, however fate intervened and another Shepherd took the infant boy to Corinth where King Polybus and Queen Merope who were childless adopted this infant as their own.

Oedipus came of age in the King's court and after allegations of not being his father's son he chose to explore this allegation on his own. Oedipus left Corinth and saw the Oracle in Delphi who repeated the prophecy that he was to kill his father, marry his mother and have children by her. This troubled him, and he decided not to return to his family home to keep the prophecy from occurring. While traveling he came to where three roads met. An older man accompanied by his attendants

ordered him to leave the road, one can envision this as a modern-day incident of who has the right of way in today's world, followed by road rage. Oedipus kills the man and his attendants. Continuing his travels just outside of Thebes he happens upon the Sphinx; a horrible monster that was plaguing Thebes with destruction of crops and killing any man who came by that could not answer its riddle. The Sphinx asked Oedipus the same question it asked the rest; *what walks on four feet in the morning, two in the afternoon, and three at night?* ". thought Oedipus answered the question correctly; *"man; for he crawls as an infant, walks erect as a man, and uses a staff in old age"* (Oedipus). The Sphinx killed itself and Oedipus continued on to Thebes where he was met by Kreon; who was the acting King after the reigning King Laius had been Murdered.

The Sphinx killed itself and Oedipus continued on to Thebes where he was met by Kreon; who was the acting King after the reigning King Laius had been Murdered. Oedipus having destroyed the Sphinx was now a hero, as a reward for freeing Thebes from the Sphinx's curse, was given the hand of the Kings Widow; Jocasta and became the ruler of Thebes.

The Oracle says to remove this plague they must remove from Thebes they must avenge the murder of the Prior King Laius, a man who Oedipus never set eyes upon. It is told that there was one witness the murder of the King and he is ordered to be brought to Oedipus. Meanwhile word comes forth that his father King Polybus has died a natural death, and confusion about the prophecy comes to Oedipus he did not kill his father as the Oracle said. Oedipus's Wife Jocasta seemed to resist having the witness brought forward and with good reason, because he reveals Oedipus' true parentage; his Father was Laius and Mother Jocasta, the woman he is married to. Further revelations from the witness who saw the murder and escaped makes Oedipus realize that that road where he killed that man and his attendants he sadly yet unknowingly had fulfilled the prophecy years prior. Oedipus retreats to his home angry and finds his wife Jocasta only to find has hung herself. Distraught over everything Oedipus uses her brooches to gouge out his eyes and blinds himself. Oedipus born of noble blood, a hero to the inhabitants of Thebes takes

accountability for his actions comes out speaks to the kingdom about what he has done, asks Kreon to take care of his young daughters and reveals the truth to his daughter that he is both their father and brother. Oedipus also begs Kreon to send him away. Kreon has pity on him wants him to stay, however agrees to Oedipus wanting to leave and live in the mountains. So here again Aristotle's tragic hero is in play Oedipus has his downfall, Oedipus' actions of unknowingly killing his father set upon a string of events that cost him everything.

Aristotle's concept of a tragic hero shows that Oedipus is a tragic hero because he is a born prince and also saves a kingdom from Sphinx. He is a popular king and has many great qualities. He is a well-wisher of the people of his nation. He is a man of integrity, an honest and great administrator and an outstanding intellect. His self-importance and narcissism is a symbol of grandeur. No doubt, "Fate and Circumstance" play a very important and negative role in moulding his life and take him to his tragic end, but there is more than one tragic flaw his character.

Oedipus' first tragic flaw is his pride. He gives too much value to his own intelligence. His excessive pride and strong ego result in ignoring the fate designed by the gods, and his belief that he can overcome his fate. He is not ready to accept that he can be the responsible for such a heinous crime. He is charged emotionally and although he is clever, yet he does not stop questioning without caring or understanding what Teiresias is talking about.

Another flaw of his character is his unrelenting quest for the truth. Quest for truth is a quality of a great character like Oedipus but here unluckily it becomes a flaw of his character. Tieresias, Jocasta and theherdsman try to stop him from pursuing truth but he does not pay any heed to them. Then after realizing that the prophecy has come true, Jocasta begs him to let the mystery go unsolved.

There is another flaw: he fails to take the logical steps or precautions which may save him from committing the crimes. As we see him getting more complicated in the situation he is facedwith and things not working out as he has imagined they might, Oedipus does not adapt the change and learns anything. We see that he becomes increasingly inflexible.

Sophocles' Oedipus fits the definition of Greek Tragedy. Throughout the story the audience viewing the play or the reader reading the play experiences many emotions. The characters go through many wonderful pleasant emotions, although those pleasantries are very brief because, after all this is a tragedy. The Hero, their lives become tragic due to flaws within their life that leads to the climatic ending with a downfall of some sorts, death, dismemberment, banishment from society. A Greek tragedy shows the audience that life is not always perfect that everyone has flaws that can catch up to you and end up putting your life into a tailspin. The effects can help humanity learn to live a better life and keep them from making the same mistakes made by the characters within their own lives.

A Greek tragedy shows the audience that life is not always perfect that everyone has flaws that can catch up to you and end up putting your life into a tailspin. The effects can help humanity learn to live a better life and keep them from making the same mistakes made by the characters within their own lives.

Tragic flaw is also known as hamartia and is not always an inferior quality, but it can also be a superior quality such as trusting others, which can in the end lead to tragedy. In Oedipus he keeps his virtuosity throughout he is wise for having defeated the Sphinx in solving the riddle. Which in turn during the plague and when Kreon said they must find the killer of King Laius they turned to him because he is wise and able to solve puzzles. Oedipus seems to be saying and showing his compassion and empathy towards the children by saying while they are sick, the whole situation makes him sicker than they are.

The most important virtue that Oedipus has kept despite the flaws of murdering his birth father, marrying his mother and having children with her as the Oracle claimed is that of integrity. Once Oedipus realized that he was the one who did this disparaging act he himself punished himself with gouging out his eyes, going blind and asking to be cast out by his Brother-in-Law Kreon to save Thebes from the horrible plague they were living in.

Oedipus started out as a discarded infant, left for dead rescued, adopted into Nobility. Grew up and upon hearing an Oracle's dire prophecy that he would kill his

father and marry his mother showed integrity to walk away hoping to stop the prophecy from coming true. He saved a kingdom from a horrible monster, married had a family and upon learning the truth of his parentage and that he had murdered his father he again shows he is a man of good morals and followed through on the wishes of Apollo and cast the evilness, which was himself Thebes to save it from the ongoing plague. Oedipus is truly a tragic hero. Tragic heroes such as Oedipus can be helpful to show humans how to not make tragic mistakes in their own.

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AXIOLOGICAL POTENTIAL OF METAPHOR IN ENGLISH- AND GERMAN-LANGUAGE JOURNALISTIC DISCOURSE

In the modern scientific paradigm, a metaphor, which has always been the object of research in stylistics and rhetoric, increasingly attracts the attention of scientists of other scientific fields and is considered not only as a verbal and figurative tool, but also as a special key to understanding the foundations of cognition, thinking and consciousness, as a means of formation and linguistic expression of conceptual systems on the basis of polyparadigmality [2, p. 40].

Analysis of research and publications. Many scientists have dealt with the issue of metaphor functioning, in particular, such as S. Hutsol, O. Nimenko, O. Levchenko, G. Fauconnier, V. Telia, O. Glazunova, R. Hoffman, T. Stretovych and others.

Purpose: to investigate the peculiarities of the metaphor functioning in English- and German-language journalistic discourse.

A metaphor has an impact on the reader, which is achieved with the help of its cognitive and pragmatic potential. It is a way of thinking and represents rich material for the cognitive understanding of language and the linguistic picture of the world. Metaphor ensures the integrity and coherence of the text, adds aesthetics and a certain expressiveness to it.

The axiological metaphor exerts a significant influence on the recipient, which is one of its leading functions. That is why the metaphors that function in modern English-language and German-language periodicals “Die Zeit” and “The New York Times” were chosen for analysis.

It is important that the axiological metaphor expresses an evaluative attitude with an orientation to certain values (spiritual, moral, aesthetic, etc.) in their connection with social, cultural factors and a person's personality [1]. Here are examples of the axiological metaphors in English-language and German-language periodicals: 1. “Die Zeit”: *Jetzt steckt er sein Geld in eine andere Sehnsucht* [3]; *Essen für den Weltfrieden, dafür war das Restaurant namens Minsk in Potsdam errichtet worden, ein Symbol der unverbrüchlichen Freundschaft mit Belarus und überhaupt allen Sowjetrepubliken* [3]. 2. “The New York Times”: *Then Her Heart Broke* [4]; *Physicians suffer one of the highest burnout rates among professionals* [4].

Conclusions. Each metaphor is used as a means of enhancing speech imagery and expressiveness. In modern periodicals “Die Zeit” and “The New York Times”, it has been revealed the functioning of an axiological metaphor, which denotes the aesthetic and spiritual values of a person. It is exerted a significant influence on the recipient with the help of the axiological metaphor.

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PHYSICAL EDUCATION IN MODERN LIFE

The importance of physical culture in the process of personality formation is enormous - in this regard, the proverb "A healthy body is a healthy spirit" is not outdated. However, barriers to the spread of physical culture such as a lack of funding and a sedentary lifestyle have appeared.

It is difficult to exaggerate the importance of physical culture and sports for health, development and the general condition of a person. From an early age, parents, teachers, mass media - radio and television - instill in children the unique usefulness of physical activity and encourage children to actively engage in sports. At this age, sports activities take place, as a rule, under the supervision of experienced trainers and specialists who monitor the correct and harmonious development of the growing body. At school age, this role is mainly performed by the physical education teacher at school.

Doing physical exercises improves the process of compensatory and adaptive reactions of the body during aging, is a preventive measure of its course, slows down the involutions of the respiratory system and thus prolongs the life and creative activity of a person.

The educational side of comprehensively harmonious development ensures the social formation of the individual in accordance with the social state of society. These include patriotic, moral-willed, aesthetic education.

Physical culture takes on a colossal importance in the process of personality formation, when it affects him from different sides, it forms moral qualities, the spirit, and affects the physical condition, stimulating a new approach to life and work, new achievements in life and work - such an effect physical culture. In order to

consciously come to the conclusion and significance of physical culture and sports, a person must understand its role in his life. And it is very good if he understands this before it is too late, in order to start leading a healthy lifestyle.

Sports and physical culture are not only a healthy way of life - they are generally a normal and healthy life, which opens new and new opportunities for the realization of strengths and talents. This is the path on which one enters with common sense, so that the life lived by them would be fruitful, bringing joy to himself and others.

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THE EMERGENCE OF CHEMISTRY AS A SCIENCE

Chemistry, as the science of substances and their transformations, originated in ancient Egypt. In ancient times, chemistry was considered a "divine" science. Egypt and Mezhyrechia became the centers of production of dyes. In the III-XVII centuries, the Arabs began to call chemistry alchemy. In those days the currency was gold. Therefore, all the researches of the alchemists were aimed at finding a stone that would turn any metal into gold.

We can safely say that chemistry, as an exact science, was born in the middle of the 18th and the beginning of the 19th centuries.

During the reign of the phlogiston theory, thanks to which many gases, various metals and other substances were discovered.

In the 19th century, the atomic theory arose. The development of chemistry continued. Mathematical and physical methods began to flow into chemistry. During this

period, such scientists as Joseph Priestley, Mykhailo Lomonosov, Antoine Laurent Lavoisier, Joseph Louis Proust, Karl Wilhelm Scheele, Claude Louis Berthollet, Humphrey Davy, John Dalton, Michael Faraday worked for the benefit of chemistry. They formed many laws of chemistry.

In the 20th century, new ideas about the structure of matter arise. New disciplines appeared - geochemistry, biochemistry, colloid chemistry, electrochemistry, crystal chemistry, chemistry of high molecular compounds. Model of the atom was investigated. People learned to extract synthetic antibiotics, synthetic polymers, plastics, building materials, fabrics.

Unfortunately, in recent years, the level of chemical education in secondary schools in Ukraine has been destroyed, and a prejudiced attitude towards this subject has been formed as complicated, difficult to understand, and most importantly, as undemanding. in later life and professional activity. let people not forget that throughout its existence, chemistry has always helped and helps man in his practical activities. Without chemistry, the development of the fuel and energy complex, metallurgy, transport, communications, construction, electronics, the sphere of everyday life, etc., is impossible.

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COOPERATION OF THE SPEECH THERAPIST TEACHER WITH PARENTS

Conditionally, it is possible to single out the following main forms of work of a speech therapist teacher by parents: individual, group, collective and mass. Individual forms of work are carried out directly communication with the parents of one child: the parents' performance of tasks according to notebooks individual work with children, conversations, consultations for parents, viewing by parents of individual classes of a speech therapist, filling in a notebook interconnection.

Group forms of work are carried out with parents within the limits of this speech therapy groups: design of stands for parents, production of "Pedagogical living room", "Let's learn together", "The teacher-speech therapist recommends", creation libraries of children's and special speech therapy literature, joint preparation for holidays, conducting excursions (teachers, parents, children), helping parents in the selection material for the production of logopedic albums and visual aids, production of question boxes, conducting questionnaires, parent meetings, open subgroup and face-to-face classes, organization of discussions, phono- and game libraries (exchange of discs with audio files and educational games), creation oral parent journal, organization of question and answer evenings, conducting joint classes "Parents - children". Collective forms of work are carried out through communication with parents children of all younger speech therapy groups of a preschool educational institution: conducting questionnaires, general parent meetings, collective discussions, organization of discussions, involvement of parents in solving problem situations and tasks, thematic evenings, business games, round tables, presentations scientific methodical and popular literature for parents.

Mass forms of work are carried out by teachers with parents and children of all

preschool educational institution: involvement of parents in preparation, organization, participation in "Parents and children" holidays, "Family guests", entertainment games, sports holidays, quizzes, leisure evenings, "Open Door Days", "Family Bridge", seminars-workshops, round tables, conferences, field meetings, lectures with the participation of scientists, practical psychologists and doctors, workers social services.

The relationship between the teacher-speech therapist and parents from the first days of acquaintance has to be built on the principles of openness and mutual understanding.

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HOW TO SAVE A READER (ACTIVATION OF STUDENTS COGNITIVE ACTIVITY IN UKRAINIAN LITERATURE LESSONS)

Nowadays, society has entered the epoch of digital technologies. They are improving very quickly. Marie Hataar, an American woman and specialist in IT technologies, wrote: «From the world's clumsy desktop computers, we passed over to the era of smartphones, laptops, and tablets».

The teachers of Ukrainian literature must solve some problems related to the digital age. In the lessons, pupils discuss which is a priority: books or the internet. I quote Italian writer Umberto Eco: "People will never stop reading books because in books we are looking for the formula that gives meaning to our existence." Computer technologies will not be able to replace words, books, or reading. If we, as teachers, show pupils such forms of text, which will not be boring and will be able to be

completed using digital technologies. These are exercises adapted to digital technologies. If pupils or students maintain a Facebook page or Instagram page, then we can offer them the opportunity to create a Facebook page or Instagram page for the literary hero or writer. If pupils or students are interested in cloud technologies, then we can offer them the opportunity to create world clouds or QR-codes. If pupils like to solve crosswords or puzzles, then we can offer them the opportunity to create croissants or patchworks. [2]

Teachers must engage pupils or students in reading. They need to activate them for this. The primary goal is for each teacher to employ their own methods of activating cognitive activity. They replaced traditional technologies with innovative technologies. These are: critical technology, interactive learning, personally oriented training, project method, technology-problematic learning, information and computer technologies. These innovative technologies activate the cognitive interests of pupils and students. [1]

To get pupils or students interested in reading, I used a variety of activities in my Ukrainian literature lessons, including crossword puzzles, croissants and patchworks, world clouds, QR-codes, the literary hero or writer's Facebook or Instagram page, the exercise "Call the author or literary hero," interviews with the writer or literary hero, fun fiction, and Blum cubes.

I think that pupils and students will not stop reading books, and we will save readers.

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FOREIGN LANGUAGE IN COMPUTER SCIENCE LESSONS

Nowadays, it is extremely important to study foreign languages: English, German, French and others. Of course, the most common and most needed language is English.

The advantage of the English language is that it can be used in almost any binary lessons: English and Ukrainian, English and natural science, English and computer science, and many others.

For example, when students study the topic of the binary lesson "Software for teaching foreign languages. Computers" students will not only learn what computers and programs are, but also deepen their knowledge of the English language, consolidate the skills of searching for new information, mostly searching for new words in an electronic dictionary. And this is very important, because informatics is very difficult to imagine without the English language: programming languages written in English, terms, device names, and much more.

You can cite the opposite example: a foreign language in the modern world cannot do without knowledge of computer science. Searching for words in an electronic dictionary, interactive exercises to determine the level of knowledge of students, online translators - all this requires computer skills, information and communication technologies.

It is worth noting that now there are many programs that are aimed not only at exclusively working with a computer and everything related to it, but also software aimed exclusively at learning foreign languages, for example: the program from Microsoft Learn Speak English; Hello English, FluentU, Rosetta Stone, Living Language, Duolingo and many others.

During such lessons, you can use all teaching methods: face-to-face, individual and group. Thus, it is possible to successfully combine two subjects and ensure systematicity in learning with the help of intersubject connections.

Prominent teachers such as Ya. Komenskyi, V. Maksimov, K. Ushinskyi and others worked on the problem of introducing interdisciplinary connections. First of all, they emphasized the need to establish connections between academic disciplines to create a holistic picture of the world through the integration of knowledge.

By means of integrated lessons, it is possible to give wider knowledge to students, which they will then use in practice. Therefore, in the modern world, one cannot exist without the other.

Literature

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MERKMALE DER DEFINITION DES BEGRIFFS "SPRACHKOMPETENZ"

Im Deutschunterricht steht das Problem der Qualität der Interaktion des Schülers mit dem Text oft nicht im Vordergrund. Das Lesen verschiedener diskursiver Fragmente bildet innere Überzeugungen und verändert die persönliche Einstellung des Lesers zu einem bestimmten diskursiven Fragment, Theaterstück, Geschichte, Roman usw. Sprache und literarisches Verständnis ist ein ziemlich komplexer Prozess, der das Verständnis des allgemeinen Kontextes der Aussage, der rhetorischen Strategien des Textes, der Einstellung, des Wissens und der Erwartungen des Lesers beinhaltet. Im Prozess des Kennenlernens und Studierens von Textfragmenten oder lexikalischen Einheiten, insbesondere stabilen Aussagen, muss der Lehrer den Prozess leiten und kontrollieren, was wiederum eine Dialog-Interaktion zwischen dem Lehrer und den Schülern impliziert, die zur besten Interpretation des Textmaterials führt. Im Allgemeinen zeichnet sich die beste Interpretation durch die größte Anzahl subjektiver Meinungen aus, die durch eine Evidenzbasis gestützt werden [3, S. 10]. Wet

Persönliches Verständnis des Textes und die Begründung der eigenen Meinung muss notwendigerweise durch die Kenntnis stilistischer Mittel gestützt werden, und die Studierenden sollten mit dem Algorithmus zur Interpretation des Inhalts eines literarischen Werkes sowie mit dem neuen lexikalischen Material, das in der Arbeit präsentiert wurde, vertraut sein. Orale MK wird durch ständiges Üben gebildet.

Gemäß dem staatlichen Standard der Grund- und Sekundarbildung muss ein Schüler über folgende Fähigkeiten verfügen: Lesen, Analysieren und Interpretieren

von künstlerischen Texten ukrainischer und ausländischer Autoren; die in den Texten aktualisierten Werte wahrzunehmen und zu verstehen; Texte zu erstellen, die ihre eigenen Ideen, Erfahrungen und den Einsatz geeigneter künstlerischer Mittel ausdrücken; die Erfahrung des Verstehens von Kunstwerken in Lebenssituationen nutzen [1, S. 26]. In diesem Zusammenhang wird auch der Begriff der sprachlichen und literarischen Kompetenz (MLK) relevant, da häufig die Bildung mündlicher Sprachkompetenz auf dem Material des literarischen Diskurses einer bestimmten Gattung erfolgt

Das Konzept der "sprachlichen und literarischen Kompetenz" wurde zuerst von Jonathan Culler vorgeschlagen. Auch das Problem des Studiums dieses Konzepts wurde behandelt: Frederick Walker, Petra Bucker, Nancy Isenberg, Sheridan Blau, Thomas Zabka. So wurde MLK von Jonathan Culler eingeführt, der glaubte, dass dieses Konzept eher zur inneren Assimilation des Wissens über die Prinzipien der Literatur durch den Menschen neigte. Er schlug auch vor, dass die Kenntnis der Sprache und bestimmte Welterfahrungen nicht ausreichen, um eine Person zu einem scharfsinnigen und kompetenten Leser zu machen [2, S. 28]. Diese Leistung erfordert die Vertrautheit mit einer Reihe literarischer Quellen. Darüber hinaus werden die Lehrer, indem sie die Schüler anweisen, ihre Annahmen zu argumentieren, in der Lage sein, den Grad des Erwerbs literarischer Kompetenz der Schüler zu beurteilen, anstatt die Vielfalt der literarischen Werke, die von Gymnasiasten gelesen werden.

MLK wurde nach sechs Hauptstandards formuliert: 1) die Fähigkeit, Text durch Stufenprozesse zu entwickeln; 2) die Fähigkeit, offene Fragen nach der ersten Lesung selbstständig zu klären; 3) Fähigkeit, kontextuelles Wissen zu nutzen, um den Text zu verstehen 4) die Fähigkeit, zwischen ästhetischem und pragmatischem Sprachgebrauch zu unterscheiden; 5) die Möglichkeit der weiteren literarischen Kommunikation; 6) die Fähigkeit, den Text am Horizont des eigenen Lebens zu reflektieren .

MLK ist gleichermaßen mit der Fähigkeit des Lesers verbunden, analytisches und kognitives Denken durchzuführen, einschließlich des Verstehens, Analysierens, Inferierens und Interpretierens sowohl expliziter als auch impliziter Bedeutungen,

Ereignisse und Ideen, die in literarischer Sprache geschrieben sind [4, S. 30]. Dieser Prozess des Denkens ermöglicht es den Lesern, die Fähigkeit zu entwickeln, zu urteilen und Schlussfolgerungen zu ziehen, die dazu angeregt werden, kritisch auf poetische Werke zu reagieren. Auch das Studium der Sprache kann angeboten werden, um auf die Bedeutung zu schließen. Der Lernende muss bestimmte Fähigkeiten und Strategien beherrschen, die es ihm ermöglichen, Wörter in Bedeutungen umzuwandeln. MK umfasst eine Reihe von Fähigkeiten und Teilfähigkeiten, die ein Lehrer identifizieren muss, um einen Unterrichtsplan zu planen und seinen Schülern klare Verfahren und Techniken für die Arbeit mit mündlichen oder schriftlichen Aufsätzen anzubieten. Das Studium von Sprache und Literatur wiederum bezieht sich auf die Ausbildung und Prozesse, um die Fähigkeiten, Kenntnisse und Fertigkeiten zu erwerben, die notwendig sind, um die vom Programm bereitgestellten Texte in den verschiedenen Formen ihres Ausdrucks, ihrer Freude und ihres Verständnisses durch produktive und kommunikative Diskussion zu verwenden.

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STATE-POLITICAL SYSTEM AND ECONOMIC DEVELOPMENT OF MONTENEGRO AT THE CURRENT STAGE

Nowadays Montenegro is one of the smallest European states, with a population of about 622,000 people. The Constitution of Montenegro was adopted on October 20, 2007. According to Art. 1. Montenegro is a free, democratic, ecological state based on the principles of the rule of law. State power is divided into legislative, executive and judicial.

The Parliament of the country - the Assembly is represented by 81 deputies who are elected by popular vote for 4 years. In addition, 5 representatives are nominated from the Albanian minority. Executive power belongs to the government, the composition of which is approved by the parliament on the proposal of the President. As for the President, he is elected by universal direct secret ballot for 5 years. The judicial power is two-tiered. According to the administrative-territorial division, the country includes 23 municipalities [1].

Montenegro is a small Balkan country that has been confidently developing its own economy in recent years. Today, the ownership structure in the economy has radically changed, creating favorable conditions for market development. The Assembly issued a number of draft laws, namely: "On foreign investments", "On privatization of the economy", "On transfer of property to management", such activity made it possible to accelerate the process of privatization [4, p. 106].

Special attention is paid to the following areas of the national economy: mining, light industry, agriculture, metallurgy, and tourism. It is worth noting that industry and agriculture are mainly focused on the satisfaction of the tourism sector.

Incomes from service industries increased in Montenegro from 30% to 72.4% during 2012–2020.

The country's ecological condition has become one of the reasons why Montenegro's investment attractiveness is growing every year. The climate on the territory of the country encourages the development of agriculture, grain crops, citrus fruits are grown and exported here, and the meat and dairy industry is developed [2, p. 51].

The energy complex is represented by two hydroelectric power stations. Montenegro has a significant potential in the production of electricity from biomass, in particular the remains of forestry and plantation farms. In 2010, the government made a decision to build four hydroelectric power plants on the Moracha River.

The largest mineral deposits in Montenegro are coal, red bauxite, lead and zinc. In general, deposits of 28 mineral resources have been found on the territory of Montenegro. Winemaking began to develop actively during the last decade. Among the most successful, we can single out wineries "Ravil", "Buk", "MBN Krupa" and others. Montenegro's main trading partners are its closest neighbors in both exports (17.8%) and imports (21.5%). The main importers for the Republic of Montenegro are China (9.6%) and Germany (8.5%). It is worth noting that Montenegro exports its goods to 80 countries, while it imports from 179. Key investors in the economy: Serbia, Ukraine, Slovenia, the Netherlands, Cyprus, Croatia.

Ukraine is developing active cooperation with Montenegro. Trade and economic cooperation between the two countries is at an initial stage. More than ten agreements have been concluded in the economic sphere, which create favorable conditions for the activation of bilateral trade and economic relations: an agreement between the Cabinet of Ministers of Ukraine and the Government of Montenegro on mutual assistance in customs matters (June 17, 2009), an agreement on cooperation between the Chamber of Commerce and Industry of Ukraine and the Chamber of Commerce and Industry of Montenegro (October 19, 2010), an agreement between the Cabinet of Ministers of Ukraine and the Government of Montenegro on cooperation in the field of tourism (December 9, 2011), etc. [3, p. 119].

Thus, Montenegro is a free, democratic country in which three branches of government function on the principles of the rule of law: executive, legislative, and judicial. In recent years, the country's economy has radically changed - new legislation, foreign investments are being attracted, various industries are rapidly developing (mining and light industry, tourism, energy, agriculture).

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CHEMISTRY AS THE SCIENCE OF THE FUTURE

The importance of chemistry in human life is very difficult to overestimate, because these processes surround us everywhere: starting from basic food preparation and ending with biological processes in the body. Achievements in this field of knowledge brought humanity both enormous damage and gave salvation

from death (development of medicines for diseases, cultivation of artificial organs). It is impossible to be indifferent to this science: so many controversial discoveries did not occur in any other field of knowledge.

This area is impossible without chemical processes: for example, few people think when they light a match that they are carrying out a complex chemical process. Or, for example, observing personal hygiene is also accompanied by chemical reactions when a person uses soap that foams when interacting with water. The same washing with the use of powders and fabric softeners is accompanied by such reactions.

When a person drinks tea with lemon, he notices that the color of the drink weakens if this fruit is added to the boiling water, and hardly many people perceived the tea in this case as an acid indicator, similar to litmus. We can observe the same reaction if we sprinkle blue cabbage with a vinegar solution: it will turn pink. When people make repairs and mix cement, burn bricks, extinguish lime with water, complex chemical processes take place that we don't think about in everyday life, but no person would do without them.

In medicine, there are many examples of the most complex chemical reactions used on purpose. Medicines are produced by mixing substances, and when they react with the cells of the body, recovery occurs. However, chemistry can play both a creative role in medicine and a destructive one, because not only medicines are created, but also poisons - toxic substances that harm human health.

Chemistry is a part of our life, and without certain processes that took place on Earth before life began, naturally, we would not exist. Digestion of food, respiration of humans and animals is based precisely on chemical reactions. The same process of photosynthesis, without which people cannot live, is also accompanied by chemical processes.

Some scientists believe that the origin of life on our planet took place in an environment consisting of carbon dioxide, ammonia, water and methane, and the first organisms obtained energy for life by breaking down molecules without

oxidation. These are the simplest chemical reactions accompanying the origin of life on Earth.

Knowledge of this kind of processes is widely used in industry, new technologies are being developed on their basis.

Even in ancient times, crafts based on chemical processes were widespread: for example, the creation of ceramics, metal processing, and the use of natural dyes.

Today, the petrochemical and chemical industries are one of the most significant branches of the economy, and this indicates that chemical processes and knowledge about them play an important role in society. It depends only on humanity how to use them - for creative or destructive purposes, because among the variety of chemicals you can find dangerous for humans (explosive, oxidizing, flammable).

Thus, chemistry in human life is a panacea for diseases, a weapon, economy, cooking, and, of course, life itself.

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MAGDEBURG LAW IN ZHYTOMYR REGION

Magdeburg law comes from the name of the city of Magdeburg, which in 1188 received from its owner, Archbishop Wichman, the right to self-government, which was confirmed by the Saxon prince Albert in 1294.

In the cities of the Right Bank of Ukraine, the so-called "Chelm" law was applied, which was a reworking of the Magdeburg law into the Polish language using the customs and other legal norms of the Polish city of Chelm.

On February 6, 1444, Zhytomyr was included in the 15 largest cities of the Grand Duchy of Lithuania by the privilege of King Casimir Jagiellonchik and its Magdeburg right was confirmed. City self-government based on Magdeburg law existed in Zhytomyr with minor changes for more than 400 years, until 1837.

Magdeburg law appeared on the territory of Ukraine together with the German colonists. The Germans received the right to organize self-governing communities with autonomous judicial and administrative institutions in Galician and Volyn cities. The first communities were created in the Galician-Volhynian state, in particular, in Lviv, which is considered the beginning of the period of partial granting of Magdeburg law (1287–1353). In total, this right was granted to 7 cities during this period. From 1329 to 1791, Lithuanian princes, Polish kings, Ukrainian hetmans granted the Magdeburg right to more than 220 Ukrainian cities.

According to Magdeburg law, cities received the right of self-government. The body of the city self-government was the magistrate, which consisted of an elected mayor, burgomasters and two collegiums - the council, which consisted of advisers and dealt with administrative, economic, financial matters, etc., and the bench, which presided over courts, mainly criminal ones. An important feature of the social life of Zhytomyr was the existence of centuries-old assemblies, which preserved the

features of the ancient Russian urban structure and played a significant role in the preservation of urban traditions.

Magdeburg law became the most common variant of legal organization. In fact, it removed the urban community from the jurisdiction of the royal administration. This right became one of the important factors in the cultural and legal rapprochement of Ukraine with Western Europe. But in addition, the Magdeburg law was used as a tool for the Catholicization and Polonization of the Ukrainian population, since only Catholics could exercise the right to self-government, although in many cities there were separate national jurisdictions – Catholic and Orthodox.

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RECTANGLE AND ITS PROPERTIES

A representative of class of parallelograms is a rectangle. A parallelogram at that all corners are direct is named a rectangle. Properties of rectangle: opposite parties of rectangle are levels; all corners of rectangle are levels; diagonals of rectangle are levels; the diagonals of rectangle cross and gone an intersection fifty-fifty; the diagonals of rectangle divide him by two even triangles; at a rectangle the sum of corners adherent to one side equals 180° .

If in a parallelogram all corners are equal, then this parallelogram is a rectangle. If in a parallelogram one corner is direct, then this parallelogram is a rectangle. If in the parallelogram of diagonal even, then this parallelogram is a rectangle. If in a quadrangle all corners are equal, then this quadrangle is a rectangle. Diagonals of rectangle are levels. The diagonals of rectangle cross and gone an intersection fifty-fifty. The diagonals of rectangle divide him by two even triangles. Heights of rectangle are simultaneously his parties. Round any rectangle it is possible to describe a circle, thus the diagonal of rectangle equals the diameter of this circle. The square of diagonal of rectangle equals the sum of squares two him not opposite parties.

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METHODS OF CRITICAL THINKING FORMATION OF THE 9TH GRADE PUPILS WHILE TEACHING UKRAINIAN LITERATURE

In recent years, the problem of the pupil's creative personality, who knows how to think critically, is proactive, bold in his creative decisions, has a non-standard own view on solving the problems posed to them today, has become quite acute. It is during adolescence that the ability to work outside of the norm and creatively, which are the

conditions for the formation of critical thinking, is most effectively formed in an individual [2].

The conditions and factors of the formation of a critical personality are highlighted in the works of such scientists as: L. Bozhovych, L. Vygotskyi, G. Kostiuk, N. Menchynska, G. Lyublinska, M. Shardakov. Features of the formation of critical thinking in adolescence are revealed in the works of S. Maksimenko, V. Molyako, O. Muzyka, H. Kostyuk, O. Matyushyn, and others.

The pedagogical dictionary defines critical thinking as a cognitive process aimed at solving educational tasks independently. This is the ability of an individual to effectively solve an educational problem, analyzing it from different positions [3, p. 326]. The process of forming critical thinking is connected with the pupil's ability to set a problematic task and find ways and means to approach its solution creatively and non-standardly.

If we consider the educational material in textbooks on Ukrainian literature for the 9th grade in the context of the formation of critical thinking of 9th graders, it is worth noting that it contains valuable material for the formation of critical opinions and judgments of high school pupils, because the study of the topic is often accompanied by questions of a problem-search direction (for example: "Подумайте!" or: "Чи погоджуєтеся Ви із думкою про те, що...", "Обґрунтуйте свою позицію", "Дискутуємо", " Міркуємо", "Працюємо над проектом", "Робота у групах", etc.). The use of such tasks through the activation of all thinking operations: analysis, synthesis, abstraction, problem-solving methods encourage the pupil to show creativity, to form originality of thoughts, their non-stereotypicality, gives them the opportunity to offer their solutions and ideas regarding the vision of a certain problem, and also forms responsibility, self-confidence.

The most effective forms and methods of forming the ability of high school pupils to think critically are interactive (work in pairs/groups), using the method of didactic games, creative exercises, "Brainstorming", "Carousel", "Microphone", the "Press" method, "Associative bush", literary "Brain-rings", debates, simulation games, literary quests, problem tasks have a significant potential for schoolchildren's ability to

analyze, classify, find the truth from all the material studied by the pupil. Thanks to the performance of problematic tasks, the pupil learns to argue his vision of a certain situation. Also, the creative activity of elementary school pupils is developed by independent work in the context of distance learning or homework assignments. Completion of independent tasks and the knowledge that pupils have acquired as a result of independent search actions are the most valuable in the matter of the formation of critical thinking.

The development of critical thinking in lessons is quite effectively facilitated by visualization and technical teaching aids [4]. For example, the performance of multimedia presentations by pupils in the form of group work contributes to the fact that schoolchildren develop their skills and ability to work with large amounts of information, develop search skills, and the ability to convince others of the expediency of their opinion or position. Such activity forms children's ability to work in a team, justify, discuss, put forward original and creative solutions, which are characterized by uniqueness and argumentation of the author's position.

The pupil's work on an abstract, report, presentation helps the schoolchild to understand information, integrate it, forms skills and abilities to find an answer to the task on his own; contributes to improving the abilities and skills of the pupil's research activity [1].

The developed methods of forming the critical thinking of 9th grade pupils and the types, forms and methods of work in Ukrainian literature classes discussed above (non-standard lessons, interactive or problem-based learning, the use of other search and research methods) contribute to the activation of the thinking processes of high school pupils. Such an activity has a special value for a schoolchild, because he acquires information in an independent way, which is the basis of strength in learning the material.

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SOCIAL WORK AND EDUCATION

Social work is work in society, it consists in the fact that social workers provide help to people who need it. More precisely, social work is a field of scientific knowledge, academic discipline and professional activity aimed at maintaining and providing qualified assistance to any person, group of people, community that expands or restores their ability to social functioning, promotes the realization of civil rights, prevents social exclusion. For example: troubles in the family, problems with parents, addiction to alcohol, drug addiction, inclusive people who need help, help to minor children, that is, we help people with life difficulties. Social work is a practical activity that takes place in a complex environment that can change. Using theories of human behavior and social systems, social work occurs where people interact with their environment. A social worker must have such values as support, empathy, respect for involvement in something interesting and positive, and faith in a person who is capable of change. It is very difficult for some people to change, maybe they have their own personal problems, especially now - in our time.

Social education, but it seems to me that it is better and more correct - social pedagogy. It plays an important role in the way that everything starts from this, it

originates from the socialization of the individual, it includes the environment in which the individual, that is, a person is from the first years of his life (communication, environment, animals, family, love, leisure, education...)

In my opinion, working in society is not easy work that you have to bear, especially if a person has problems and the solution to his difficulties is very large and the most difficult in the psychological field. But social work is very cool in the way you help people and put them on the right path.

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DIGITAL MARKETING AS A MODERN TOOL FOR PROMOTING GOODS AND SERVICES

In the modern dimension, digital communication plays one of the leading roles in the development of advertising communication. As a result of the population's adaptation to new technologies, most of Ukraine and all of humanity have access to the Internet.

The development of the technological and sociocultural environment has led to the development of methods of promoting goods and services, as well as marketing

in general. Communication technologies are actively developing, new opportunities for increasing the effectiveness of the company's marketing activities are opening up.

Over the past 10 years, a large number of new means of communication have appeared. If earlier information was distributed in print media, on television, orally, today these classic methods can be supplemented by e-mail mailings, thematic forums and sites, search engines and social networks. It became possible to sell goods and services through online stores, sites, social networks, online games and online intermediaries. Today, there are more and more entrepreneurs who want to start their own business, but due to insufficient funds for promotion, many startups never materialize. In addition, the competition in the markets is very high, which reduces the opportunities of new players to develop their own enterprise.

The introduction of digital technologies became possible thanks to the large audience of the Internet, regarding cheap promotion (classical marketing methods) and the possibility of organizing advertising campaigns to create a comfortable business environment. The changes taking place with the introduction of digital technologies should be considered as an indicator of the formation of the main component of meeting the needs of consumers in the market of goods and services. With the correct use of digital marketing, the company can ensure a stable competitive position, financial stability and, in general, increase its competitiveness on the market of goods and services.

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STUDYING THE USAGE OF AGILE METHODOLOGIES IN SOFTWARE DEVELOPMENT IN HIGH SCHOOL

Introduction. Software projects are seen as a methodology for secondary computing education which is highly appropriate and meets the demands and goals of Computer Science (CS). Yet the majority of models and examples for project-based lessons rely on a traditional software development approach: the waterfall model. In this paper such models are analyzed for their strength, problems, and deficiencies. Based on the results of the analysis a new approach to projects in secondary computing education is presented which uses the concept of didactic transposition to adapt agile software development methods for project organization, management, and implementation in class. The resulting model applies multiple practices of Software Programming and Scrum and provides a set of tools that allow high school software projects to benefit from modern software development methods. By emphasizing dynamic processes and a clear course of action an attractive perspective on CS is promoted.

In secondary computing education, software projects are promoted to provide an appropriate and student-oriented approach to Computer Science (CS). Yet, most projects in this context are mainly focused on sequential project layouts that resemble traditional software development (SD) methodologies such as the waterfall model. In recent years it became apparent in professional SE that such methodologies often fail to produce high quality products, bring forward delays in delivery, and insufficiently consider customers' needs. Analogue issues can be found in school projects: unfinished projects, missing time and motivation for

testing, neglected documentation, and teachers' difficulties in managing software projects are just some of the problems reported.

Presenting the material. As discussed above, PBL represents a common teaching and learning method in computing education. However, even if common models suggest a structure and requirements for school software projects, methods are described insufficiently for the individual phases. Agile methods and modern SD principles provide a set of clearly described strategies that seems well suited for an implementation in school contexts. As described in the agile manifesto, they emphasize communication, visualization, teamwork and common goals. In the following, we want to introduce a model for school software projects that builds on the character of agile methods in order to address the problems outlined in section 2. It follows the agile manifesto by focusing on

1. Students and their interactions
2. Rapid success and working software
3. Collaboration in order to strive for a common goal over fulfilling a contract
4. Responding to change and learning progress over following a plan.

The individual strategies and tools are illustrated in fig. 1 and will be described below in an agile model for projects in computing education (AMoPCE).

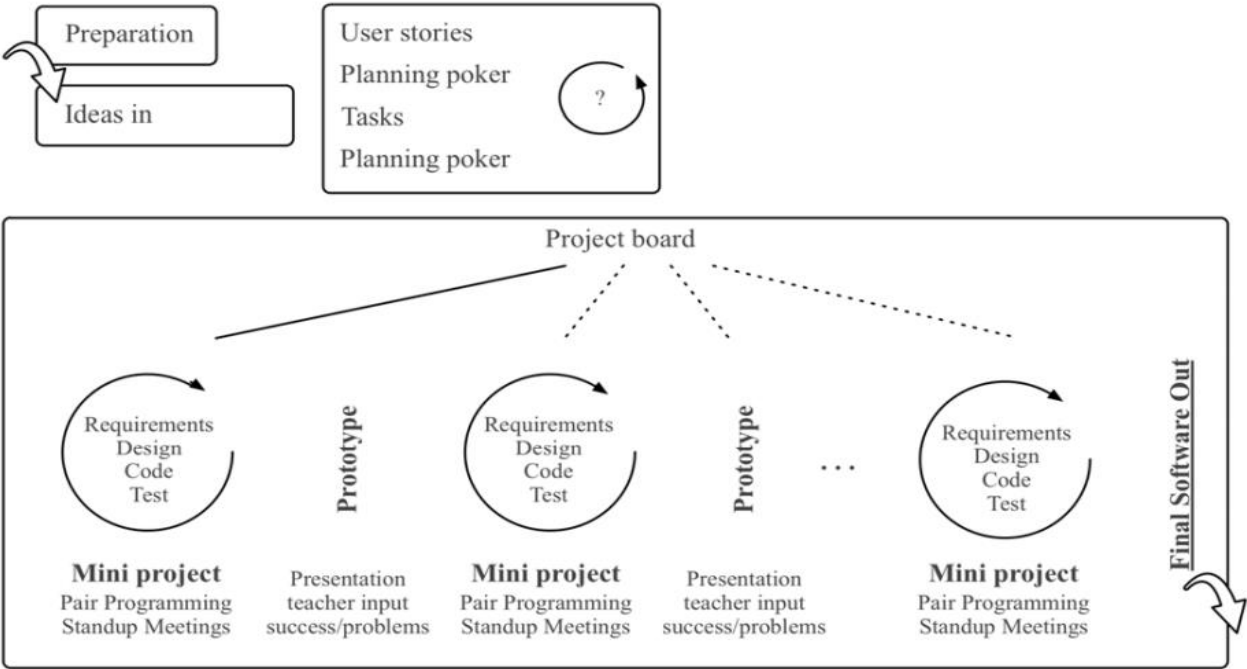


Fig. 1. Agile Model for Projects in Computing Education (AMoPCE).

In this description we focus on processes and methods that are central for the agile SD process. Additional pedagogical aspects such as triggering students' motivation or finding agreement in choosing a project topic are not covered. The process contains various techniques adapted from professional SD practices. They provide clear lines of action that can be followed by the students (e.g. generating user stories, planning poker, defining tasks). However, before applying them in a project it is important to introduce and practice each method. On the other hand, an explorative learning approach is possible: The methods describe the processes in such detail that appropriate material can be created which allows students to learn and perform the processes independently.

User Stories

User stories briefly describe features of a product that should be available to the actual user. Each user story addresses a specific activity of a user and is derived from the ideas of the requirements analysis. They are written from the perspective of a customer. User stories should easily fit on index cards and also be understood by non-developers. They should provide additional space for an estimation of the work effort. In combination, user stories specify the entire intended product.

A final state and amount of user stories has to be accomplished in agreement with the customer. Thereafter, stories are prioritized together with the customer by sorting user stories according to the importance of each story. Priorities are presented using incrementing numbers by powers of ten from 10 (most important) to 50 (least important).

User stories are created using various brainstorming techniques and take account of domain specific needs, knowledge, and approaches of the actual users specified in the requirements analysis.

A user story:

- covers one activity that needs to be addressed
- represents the perspective of the customer
- is short, i.e. contains no more than three sentences

- does not use technical terms
- does not specify technology or tools

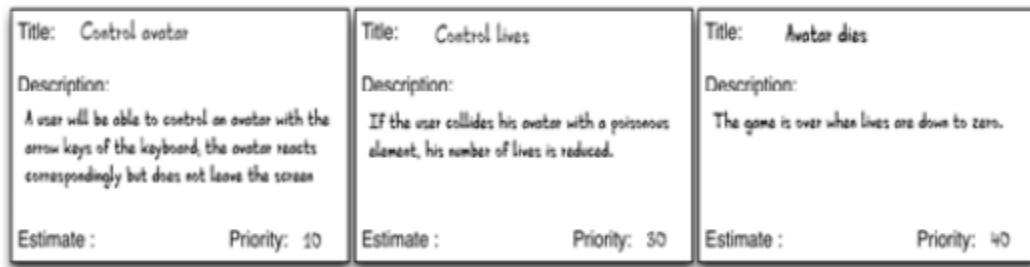


Fig. 2. Cards for user stories holding a title, a description, an estimate for workload, and a priority.

Planning Poker

Planning poker is a hands-on method helping participants to estimate time needed for the work packages and guarantees a fair and comprehensible approach amongst all team members. Each participant holds a deck of cards to estimate the workload of a user story. There should be cards representing estimates in comprehensible units (e.g. developer-days) and special cards allowing players to indicate a lack of information, a need for a break, and already finished functionalities as shown in fig. 3.

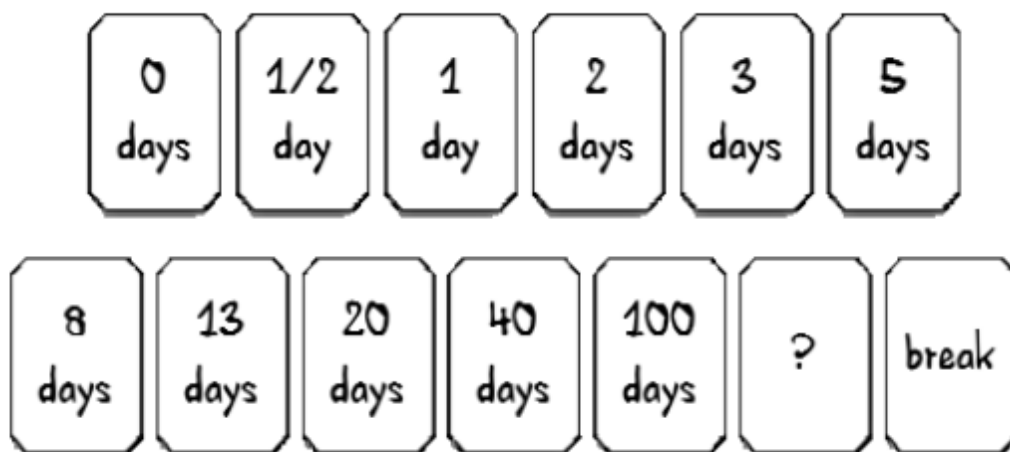


Fig. 3. Deck of cards used for the planning poker.

Each play round is devoted to one user story. A user story is placed in the middle of the table by the dealer and all participants place a card specifying their estimate face down on the table. All played cards are turned at the same time. The dealer collects the played cards and sums up the estimates trying to set up an average estimate. The dealer should address outliers by asking for reasons explaining fundamental differences in the estimates. Furthermore, the dealer should reflect on average estimates referencing the differences in the played cards. After each round the acquired estimate is written on the card of the user story. Additionally, the individual estimates are written on the back of the user story card to keep track of the decision process.

Tasks

After the initial planning poker, user stories are broken down into tasks. Usually each user story can be seen as a collection of tasks. A task is a rough description of a work package that should be done by a single developer (fig. 4). A task should have a unique self-explanatory name and should indicate its priority. The workload of each task should also be estimated by planning poker. Afterwards, task estimates are summed up to double check them with the initial estimates on the corresponding user stories. Thus, these estimates should not differ tremendously.

Task 1 Create class "Lives"; contains get/set methods Estimate: 1	Task 2 Implement reaction on live- effecting events Estimate: 2	Task 3 Implement display of live; update if value changes Estimate: 1
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Fig. 4. Tasks for User Story "Control Lives".

While the user stories describe project goals from the perspective of the user, the students now need to change their perspective and look at them from a developer's viewpoint. By dividing user stories into tasks, various design decisions

need to be made. Experienced programmers will now benefit from their competencies and known best practices, less confident students at this point can benefit and learn from team members, processes and team discussion.

Iterative Development, Prototypes, and Milestones

Agile processes are designed to provide short iterations that constantly come up with working prototypes that can be used and discussed with users or customers. This allows for rapid feedback loops that help to uncover misunderstandings, to detect issues in using the interface, and to adapt to new requests. An iteration is supposed to be short and has to be balanced according to implementing new features, fixing bugs, responding to change, and considering group dynamics or individual demands. In professional contexts, iterations vary between one week (5 working days) to one month (approximately 20 working days).

In school software projects, the planning of long development processes is reported to be difficult. Also, teachers report issues maintaining student motivation while they are not getting a grasp of the product until the whole project is assembled. The learning theory of constructionism emphasizes that learning happens especially felicitously in a context where learners are engaged with creating and investigating a personal relevant product

The proposed agile model for SD projects AMoPCE addresses a majority of the previously identified problems. Agile practices fill the learners' gap between requirements and outcome by providing clearly defined strategies for handling difficult planning tasks. Based on the perception of PBL as a team activity, which is in line with modern SD, a team size of 4-6 students is recommended. Dividing the class into several teams, in comparison to having the full class working on one project allows for addressing a broader range of topics, hence it is easier to meet the interest of more students. Also, it should be much easier to find agreement within smaller teams.

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THE ROLE OF PHYSICAL CULTURE IN THE PROCESS OF SOCIALIZATION OF THE YOUTH

Socialization of youth is a set of all social and psychological processes, with the help of which an individual learns a system of knowledge, norms and values that enable him to function as a full-fledged citizen of society. Studying the problems of youth socialization is one of the directions of sociology - a field that is becoming very significant for society nowadays. Youth as a certain phase, stage of the life cycle is biologically universal, but its specific age framework, associated social status and socio-psychological features have a socio-historical nature and depend on the social system, culture and the laws of socialization inherent in this society, as well as from physical culture.

Physical culture is an essential element of social life in the conditions of modern society, the role of which in solving various problems of individual and collective life compared to the past has increased tremendously. Means of physical culture, called today in the most active way, contribute to strengthening of health, preservation of high physical and mental capacity, long creative phase of life.

Physical culture can also ensure spiritual health, human education, growth of the general cultural level, formation of aesthetic requests, ideals, acquisition of self-organization skills, self-government. It is known that the level of physical culture of an individual is determined by the nature, structure and direction of the motivations of a person's physical activity. This reflects the degree of social maturity and responsibility of a person towards his health and physical fitness. Physical activity carried out by an individual is directly related to motivations, the level of physical education and the amount of accumulated experience. The quality of its organization, systematicity, compliance with the goals of physical culture, adequacy of the level of health, gender, age, level of physical fitness are the main components of the value of the physical culture of an individual.

Therefore, it is possible to draw conclusions about the role of physical culture in the process of socialization of youth. First, physical culture as a complex socio-cultural phenomenon is an integral part of the general culture of mankind. It includes, as necessary components, physical education, sports and physical recreation, which characterize the life of an individual in the sphere of education, life, and leisure. Secondly, acting as an element of a person's lifestyle, physical culture becomes the sphere of realization of the creative potential of the person, contributes to the harmonization of the biological and social in a person, strengthening of the spiritual health of people, formation of stable value and worldview attitudes of the person.

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TEILNEHMER AM POLNISCHEN AUFSTAND VON 1863 BIS 1864

ANDRIJ POTEBNYA

Einführung. Polnischer Aufstand in den Jahren 1863-1864 hatte erhebliche Auswirkungen auf das Territorium Litauens, Weißrusslands und der Ukraine am rechten Ufer. Dies zeigte sich in der Teilnahme von Vertretern indigener Völker. Ein prominenter Teilnehmer des Januaraufstands war der Ukrainer Andrij Potebnya.

Andriy Potebnya wurde am 19. August 1838 im Dorf Perekopovka (Romny Region Poltawa Provinz) geboren. Andrijs Vater Panas Efimovich Potebnya stammte von den Kosaken, war Stabskapitän im Ruhestand, nahm 1828-1829 an den Kriegen mit Persien und der Türkei teil. Er diente als Gerichtsassessor in Romny, wo er ein Haus hatte. Die Familie Potebnya hatte fünf Kinder: vier Söhne und eine Tochter. (Drei der vier Brüder, Andrij, Peter und Nikolaj, gaben ihr Leben im Kampf gegen den russischen Zarismus, sie wurden Revolutionäre). Gelehrt in vielen wissenschaftlichen Dingen, mehrere Sprachen beherrschend, schätzte der Vater des späteren Helden des Befreiungsaufstands Bildung über alles. Andrei war der zweite Sohn in der Familie. Der erste Sohn Alexander wurde ein berühmter Wissenschaftler, der Begründer der sogenannten psychologischen Richtung in der russischen Philologie. Das Institut für Linguistik der Akademie der Wissenschaften der Ukraine ist nach ihm benannt.

1848 schickten die Eltern den zehnjährigen Andrij nach Orlovsky und später zum Polozker Kadettenkorps. Das Korps wurde 1835 in einer alten weißrussischen Stadt gegründet und hatte ein ganz bestimmtes Ziel, die edle Jugend der kürzlich eroberten westlichen Provinzen aktiv zu russifizieren und die feindseligen Gefühle

gegen das zaristische Russland zu überwinden, die nach dem blutigen Aufstand aus Polen kamen 1830-1831. Dann wurde die 16. Graduierung des Polozker Kadettenkorps, zu dem Andrij Potebnya gehörte, nach St. Petersburg verlegt.

Andrij Potebnya schloss sein Studium im Rang eines Fähnrichs ab und wurde zum 16. Schlisselburg-Infanterie-Regiment der 4. Infanteriedivision geschickt, das in Warschau einquartiert war. Zwischen ihm und den Menschen, denen seine Seele so wehtat, wurde die Uniform eines Offiziers der russischen Armee platziert - die Uniform eines Eindringlings. Weder perfekte Kenntnisse der polnischen Sprache noch angeborene Aufrichtigkeit und Freundlichkeit halfen. Zwei Jahre später wurde Potebnya in die Schießschule Zarskoje Selo geschickt [1, p. 366].

Dort stand die Studentenschaft unter dem Einfluss von Persönlichkeiten der revolutionär-demokratischen Bewegung, insbesondere von Taras Schewtschenkos Freund Zygmunt Serakowski, der sich selbst als „Ukrainer vom rechten Ufer des Dnipro“ bezeichnete. Die Freundschaft mit ihm vervollständigte die Meinungsbildung von Andrij Potebnya. Am 1. Dezember 1859 kehrte er nach Erhalt des 1. Grad-Zeugnisses über den hervorragenden Abschluss der Offiziersschule zu seinem Schlisselburger Regiment in Polen zurück. Und findet sofort Gleichgesinnte.

In Polen wurde eine revolutionäre Organisation russischer Offiziere gegründet, die später den Namen "Organization von Potebnja" erhielt.

Im Februar 1863 kam Andrij Potebnja nach London, um die Situation nach mehreren Tagen des Partisanenkriegs zu überdenken. Die Niederlage des polnischen Aufstands war offensichtlich, aber er versprach Ogaryov und Herzen persönlich, das Komitee russischer Offiziere zu erhalten.

Nach seiner Rückkehr nach Warschau ruft er die Offiziere und Soldaten der russischen Armee zur Unterstützung des polnischen Aufstands auf und überzeugt, dass die Freiheit der leidgeprüften Heimat eng mit der Befreiung Polens verbunden ist.

In der Nacht vom 4. auf den 5. März 1863 griffen mit Sensen bewaffnete Rebellen eine viel größere Abteilung der russischen Armee an. Angeführt wurden

sie von Andrijo Potebnoa, ebenfalls mit einer Sense in der Hand. Die Kugel traf ihn in der Nähe der Friedhofsmauer der Stadt Piaskova Skala. Kameraden trugen Potebnja, tödlich an der Brust verwundet, zum Wachhaus, und dort starb er im Morgengrauen ruhig und tapfer in ihren Armen. Seine letzten Worte waren: "Möge Gott dir den Sieg im Kampf gegen die Tyrannei geben ...". Er wurde in einem Massengrab am Stadtrand von Krakau [2, S. 500].

Anschluß. Die Ukrainer beteiligten sich zusammen mit den Polen aktiv am Kampf gegen den russischen Zarismus und kämpften „für unsere und eure Freiheit“. Die Erinnerung an Andrij Potebnja lebt im ukrainischen und polnischen Volk weiter. Ihr Opfer war nicht umsonst.

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SCIENTIFIC SUPPORT IN THE FIELD OF PHYSICAL CULTURE AND SPORTS

In accordance with the article And Law of Ukraine "About a physical culture and sport" a physical culture is "component part of general culture of society, that is sent to strengthening of health, developing physical, morally-volitional and intellectual flairs of man with the aim of the harmonious forming of her personality.

Physical culture is an important means of increasing the social and labor activity of people, satisfying their moral, aesthetic and creative requests, the vital need for mutual communication, the development of friendly relations between peoples and the strengthening of peace.

In the process of cultural development, a person consistently acts in three directions. First of all, it assimilates culture, acting as an object of its influence. In other words, under the influence of culture, a human personality is formed, its abilities develop. Secondly, in the process of creative activity, a person creates new cultural values, acting in this case as a subject of cultural creativity (the search for new ways, means, rational methods of physical education, etc.). Finally, the third aspect of cultural development consists in the fact that culture is integrated into the essence of the person himself, who functions in the cultural environment as a concrete carrier of cultural values, combining in himself the general, characteristic of the culture as a whole, and the personal, brought into the culture on the basis of individual life experience, level of knowledge, outlook.

Scientific support within the sphere of physical culture and sports is applied for conducting research, implementing their finally ends up within the practice of labor of physical culture and sports institutions, training scientific personnel and scientific and pedagogical workers. Scientific and scientific-methodical activities within the sector of physical culture and sports are disbursed by scientific institutions, higher educational institutions of III-IV levels of accreditation in accordance with the procedure established by legislation. The cytoplasm of executive power, which ensures the formation of state policy within the sphere of physical culture and sports, approves five-year consolidated plans for research add the world of physical culture and sport

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LANGUAGE DEVELOPMENT

Language development is an important task of comprehensive education of children. Therefore, it is necessary to promptly eliminate everything that can interfere with the child's free communication with loved ones and peers, and to create the most favorable conditions for the language development of children in the family.

In order to effectively solve the mentioned problems, work on overcoming speech defects must be started in preschool age. This is explained, firstly, by the fact that it is among preschoolers that speech disorders are most often found, and, secondly, by the high effectiveness of speech therapy on children at this age. As you know, timely speech therapy assistance to preschool children is one of the prerequisites for their successful education at school.

Work on sound pronunciation covers not only the education of clean, correct pronunciation, clear diction, expressive language, but also the education and development of phonemic processes in children (reception, analysis, attention). Speech therapists should work with children when: damaged pronunciation of several groups of sounds (for example, whistling and hissing, sonorous and deaf or sonorous); there is a general slurred speech; insufficient development of the lexical-grammatical aspect of speech (that is, if children give poor, incomplete answers to questions, do not know how to use words correctly, distort them, rearrange syllables, endings), etc.

Stages of speech therapy work to overcome speech defects

The first stage is preparatory work. Games and exercises are held that direct the child's attention to the sound structure of the language. She is taught to listen, to recognize speech and non-speech sounds, to distinguish them by timbre, pitch and

strength of voice. In this set there are various speech therapy games, for example: "Recognize by sound", "Recognize who the voice belongs to", "Guess in which word a mistake was made", "Match the pictures to a certain sound", etc.

Stage II – setting the sound. Work begins with appropriate preparatory articulation exercises for the development of mobility of the speech organs. Articulation exercises are selected taking into account the speech defect, for example: "blade", "check mark", "tube", "clock", "horseshoes", "swings", etc. These and other exercises develop the articulatory apparatus, contribute to the improvement of speech organs, their mobility, dynamism, better and more accurate coordination.

After articulatory gymnastics, work is carried out on sound imitation (the child repeats a certain sound after the teacher) or mechanical production of sound.

The third stage is the automation of pronunciation. Consolidation of the correct pronunciation of sounds is carried out in isolation, in syllables, words, sentences, colloquialisms, pure speech, poems, comforts, saturated with sounds that require correction.

IV stage - differentiation of sounds. At this stage, children compare the sounds that are most often mixed ([c]-[sh], [z]-[zh], [x]-[u], [p]-[l], etc.) sound, semantic function.

All this helps a lot in the development of pure language without any defects.

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ADAPTIVE PHYSICAL CULTURE

Is a type of physical culture, the purpose of which is rehabilitation, adaptation, social and pedagogical integration into society of persons with health abnormalities (disabled). Research in this area includes knowledge of physical culture, medicine,

medical-biological and social-psychological scientific and educational disciplines. Adaptive physical culture is a joint activity of disabled people and society, which manifests itself in the formation of a person's readiness for life, optimization of his development and condition. Adaptive physical culture is practiced by people with various disabilities: hearing, vision, intelligence, musculoskeletal system (spinal cord injuries, amputations, cerebral palsy, etc.). General tasks of adaptive physical culture: mobilization of spiritual forces, formation of a conscious attitude to reality and one's capabilities, development of willpower, self-realization; optimization of the functional state of the body; prevention of diseases, complications, dystrophic processes; creation of positive compensations, as well as elimination of pathological compensations; formation of vital knowledge, abilities and skills to preserve and maintain the body in an active functional state. The special tasks of adaptive physical culture depend on the form of the disease and the functional and movement disorders caused by it. They are mostly related to the problem of human interaction with the environment: perception of space, purposeful movement, the ability to make movements using various objects, etc. Types of adaptive physical culture: adaptive physical education; adaptive sports; adaptive movement recreation; creative (artistic and musical) body-oriented practices; extreme types of motor activity

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PSYCHOLOGICAL FEATURES OF HIGHER SCHOOL STAFF ACTIVITIES UNDER CONDITIONS OF RESISTANCE TO CHANGE

The national socio-cultural and economic changes taking place in our time affect the system of higher education, which also needs changes and is forced to transform in accordance with new social demands. The application of new methods of activity, the solution of urgent development problems led to the need for reorganization, reorganization, allocation or unification of various structural subdivisions of educational institutions, and the introduction of European standards of management activity.

To play an effective role, respond flexibly to an ever-changing market environment, and increase stability and adaptability, colleges and universities must pursue organizational reforms with purpose. In this way, inertia and stagnation in management structures, systems of connections and relations are overcome. Currently, higher education, which is often in a state of transformation, is experiencing an intensive search for new forms and methods of ensuring effective functioning.

Employees of higher educational institutions are responsible for the introduction of new trends in the field of management, training, education and organizational activities. At the same time, the study of the real process of organizational development in universities has become one of the primary tasks of organizational psychology and management psychology. The personal component of higher education is also growing significantly. Resistance to change can be considered at different stages of change implementation.

In periods of strategic development, it manifests itself as a struggle of old and new ideas, perspectives, methods, goals and directions of development of an educational organization or its various parts. During the design of activities in educational institutions, resistance is manifested in different assessments of the ease of choice and the availability of effective options for implementing strategies. When implementing changes directly, there is a difference in the perception of the need and possibilities of implementing the strategy in the organization and ensuring its implementation. Even if employees are aware of the need for change, they will not necessarily embrace it with enthusiasm. In the last stages of strategic restructuring, resistance to change manifests itself in the desire to return to the old system that preceded the changes. It is at this stage that the innovative nature of the strategic direction of development may be distorted.

In general, resistance to change is a phenomenon caused by a contradiction between the current activities and the measures envisaged by the development of the organization's strategy. This is explained by the desire of the system to establish equilibrium, which is easier to do by returning to a defined (previous) state. The stability of the system depends on the difference between what is available and what is needed to achieve a new goal.

As a rule, the resistance of organizational employees to changes depends on the following factors: the degree of violation of organizational values, principles and norms; speed and intensity of the change process; nature and degree of transformation. The bigger the change, the more resistance it faces from the people who are primarily responsible for implementing it.

Resistance to changes in the organization appears as an objective phenomenon, which is a consequence of the employee's orientation to a certain relative stability that supports relations. Any strategic change of these relations is considered as a destabilizing factor capable of destroying previously acquired value.

The bearers of resistance are employees who are not afraid of change, but are responsible for the process of implementing changes and the final result of implementing innovations. Therefore, they try to prevent changes, so as not to fall

into new conditions, into a new brick, where many things must be done in a new way, not as it was before.

Resistance management in higher education can be improved if organizations recognize the potential benefits of resistance and resolve to overcome it. After all, resistance often becomes an ally in making necessary changes. In this regard, it is necessary to first find out the reasons for resistance, to find out its true nature, to give employees the opportunity to express their opinion, to stimulate a real desire to participate in changes. By involving employees in the process of implementing change and providing them with feedback, many difficulties can be overcome, and the end result will be much more important than if the employee was just a bystander.

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PROTECTING BUSINESS REPUTATION

A person, consciously or unconsciously, when making decisions in his life (from choosing clothes for a morning run to choosing a partner in business or theses of an inaugural speech), takes into account the possible reaction of the environment. No matter what anyone says, the public opinion about us and our actions corrects, and sometimes completely shapes our style of behavior. Reputation (lat. *reputatio* – I consider, contemplate) is the result of long-term work on oneself and one's brand and one's own positioning in society. It not only led to dizzying successes, actively moved social elevators, but also destroyed successful careers and businesses.

Everything we create, shape, maintain and improve has its price. It is much easier to talk about the value of material things, because the ability to value something that has a certain physical form seems more obvious than something that cannot be touched.

The right to inviolability of business reputation is a personal non-property right subject to judicial protection. Courts interpret the definition of "business reputation" as an assessment of entrepreneurial, public, professional or other activities carried out by a person as a participant in social relations.

It is not about evaluation as a process of determining economic value, but about evaluation as an internal perception of your company, its activities, products and brand as a whole. This is more of a psychological process that depends on the quality of information the observer receives about your company.

A more successful business may tempt competitors to question your company's reputation. In the global world of fierce competition for new markets, one negative post on a social network can slow down the implementation of plans. And misuse of the business reputation of a successful company is a common manifestation of unfair competition.

World practice is known for many cases when the value of the company both increased sharply and unexpectedly entered a sharp peak due to a publication in the media, an interview or a public statement.

For example, in 2021, Elon Musk added more momentum to the Dogecoin cryptocurrency with his tweets than all the market factors: Musk's statement alone about the start of a test acceptance of Dogecoin for Tesla increased the value of this crypto by 20%¹, and six months before that, his joke about "fraudulent" nature of the cryptocurrency in one of the TV shows, the value of Dogecoin collapsed by 28%.

The right to the inviolability of business reputation is subject to protection, and the damage caused to it is subject to compensation. In this aspect, there are difficulties in proving the amount of damage. Business reputation, being a personal non-property good, is not directly an asset (unlike goodwill) that is reflected in the company's accounting. This is explained by the fact that it cannot be identified, which is a prerequisite for the recognition of an intangible asset.

Therefore, the determination of the amount of damage to business reputation mostly becomes the object of various kinds of examinations initiated by the injured party. However, the issues of methodology and sources of information for conducting examinations are complex and imperfect. It is easier for the courts when the claimant substantiates his claims for damage to business reputation by referring to the loss of goodwill. These and other methods of substantiation should be aimed

at proving the fact of a decrease in intangible assets of a legal entity as a result of damage to its business reputation. It is the size of their reduction that will be the main criterion for justifying the size of the damage.

Summing up, it can be unequivocally stated that business reputation plays a special role in shaping current and future business. It is the business reputation that makes it possible to more fully simulate options for the development of events around your business and become a trigger in making investment decisions. Having at its core a significant share of the subjective element, business reputation is quite sensitive to various irritants, which requires an immediate response from the business to prevent the manifestation of unfriendly information campaigns, or to obtain fair satisfaction, if the warning still failed.

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3D MODELING IN THE MODERN WORLD

Every year, 3D modeling is gaining more and more popularity, therefore the impact on various areas of our life is increasing [1]. 3D modeling is computer

graphics that combines techniques and tools needed to create three-dimensional objects in three-dimensional space [2].

A 3D model is a three-dimensional figure in space, created in a special program.

3D modeling is used in various industries such as film, animation and games, interior design and architecture. They are also used in the medical industry for interactive representations of anatomy. A lot of 3D software is also used to build a digital representation of mechanical models or parts before they are actually manufactured. The purpose of this article is to consider the areas of application and the main advantages of 3D modeling in the modern world.

Design and architecture. 3D modeling has long played an important role in architecture. With the help of a 3D model, you can create a so-called "copy" of the building. The prototype can reflect the general dimensions of the building, or be a detailed model of the future structure.

As for interior design, designing in 3D, the designer can also review the design using software [2]. This is especially useful for customers who find it difficult to visualize projects from 2D drawings. This allows them to see how much clearance and access they will have around the project before it is physically built.

Advertising and marketing. All media sectors use 3D modeling in some way. In publishing, advertising and marketing, it is used to highlight new products - or even simply to show an image that would be impossible to obtain in real life. Using 3D modeling for advertising is more effective than standard photos or videos.

Urban planning. Thanks to 3D modeling, the most realistic display of urban architecture and landscapes is achieved. 3D can provide accurate scale. For example, you can make sure that certain objects match the dimensions. This makes it possible to feel the effect of presence in the designed space. This allows you to objectively assess the advantages of the project and eliminate the shortcomings.

Industry. Today, it is impossible to imagine production without industrial modeling of products. Thanks to 3D technologies, manufacturers have the

opportunity to significantly save on materials and reduce financial costs for engineering design [1].

Computer games. Today, it is impossible to imagine the creation of computer games without the use of three-dimensional modeling. In professional programs, experienced specialists draw three-dimensional landscapes and models of heroes with their own hands, animate created objects and characters. It is 3D modeling that makes video games attractive and believable.

Cinema. The entire modern film industry focuses on cinema in 3D format. In movies, 3D modeling is used to create impressive special effects. This allows them not only to create screen characters, but also to build worlds that do not even exist. Creating a high-quality 3D film is quite difficult and time-consuming - it is, in fact, an art in itself. In order to achieve realism, it is necessary to know all the features of 3D modeling and be very careful when calculating at each stage of the project. This requires a lot of training and can only be done by experienced professionals.

Having studied certain areas, we can conclude that 3D modeling occupies a significant place in our lives.

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SOCIAL WORK IN UKRAINE, THE FIRST STEPS

In domestic social science, where it is customary to conditionally distinguish theoretical and practical levels (aspects, sections), the socio-pedagogical bias

prevails. In the early 1990s, the Donetsk researcher V. Sidorov was one of the first in Ukraine to attempt its methodological justification. He defined it as "professional work on providing assistance to a person, family, different age and social groups (clients) in solving their psychological-pedagogical, medical, legal, economic and other problems"; it is implemented in the interaction of clients and specialists "in order to improve or restore the former's ability to live". This definition clearly reflects the essence and specificity of social work as a field of social practice. Barnaul and Moscow scientists have done a lot for its theoretical justification under the conditions of a transitional society. For example, the team headed by I. Zaynishev proposed to consider the theory of social work in a broad way as "a system of views and ideas regarding the use or explanation of phenomena and processes, social relations that arise under the influence of the activities of social services and bodies of social protection and assistance to the population." In a narrow, special plan, according to scientists, it is the highest form of organization of scientific knowledge about the most essential connections and relationships that arise in the process of this activity.

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THEOREM OF SINES

The theorem of cosines was proved geometrically in Euclid's "Principles". "Beginnings" played an important role in the development of mathematical science. The historical significance of this work lies in the fact that it was the first

attempt to logically construct geometry based on axiomatics. Euclid's elements paved the way to the discovery of the law of cosines. In the 15th century, the Persian mathematician and astronomer Jamshid al-Kashi gave the first explicit statement of the law of cosines in a form suitable for triangulation. He provided accurate trigonometric tables and expressed the theorem in a form suitable for modern use. The theorem of cosines was first formulated and gained popularity in the Western world by the French mathematician Francois Viet in the 16th century. At the beginning of the 19th century, it began to be written down as the theorem of cosines in its current symbolic form [1,1].

The theorem of sines is the following trigonometric statement about the properties of the angles and sides of an arbitrary triangle: let a , b , and c be the sides of the triangle, and let A , B , and C be the angles opposite the specified sides.

This formula is useful in calculating the remaining two sides of a triangle if the side and two adjacent angles are known; a typical triangulation problem. Also, if two sides and one of the angles not formed by these sides are known, the specified formula gives two possible values for the interior angle. In this case, often only one value satisfies the condition that the sum of the three angles of a triangle is equal to 180° ; otherwise, we get two possible solutions.

The inverse value of the number in the sine theorem (i.e. $a/\sin(A)$) is equal to the diameter D (or the 2nd radius) of the circle circumscribed around the triangle (a single circle passing through three points A , B and C).

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PHYSICAL EDUCATION OF YOUTH AS A NECESSARY COMPONENT OF BEING HEALTHY

In the modern development of the country, in the conditions of the qualitative development of all aspects of active social life, the requirements for the physical fitness of our citizens, which is necessary for successful work, are increasing. The higher school faces the task of radical and comprehensive improvement of professional training and physical education of future specialists. In the new conditions, the social need for physical education in the formation of a comprehensively harmoniously developed personality of a university graduate with a high degree of readiness for social and professional activity is growing. The level of a person's culture is revealed in his ability to use his free time proportionately and fully. Not only success in work, education and general development depends on how to use it, but also a person's health and the fullness of his life. Physical education and sports play an important role here. Because physical culture is health.

The essence of using sports is to increase the body's energy, which is a prerequisite for increasing the body's adaptation to the environment. The data of medical science and many years of human experience show that physical exercises are a powerful means of strengthening health and increasing the resistance and resistance of the human body to many infectious and especially non-infectious diseases.

Physical culture is a specific type of social activity of a young person, in the process of which physical and spiritual needs are satisfied. Physical culture, with the help of physical exercises, prepares young people for life and work, using the natural forces of nature and the entire complex of factors (work mode, daily life,

rest, hygiene, etc.) that determine the state of human health and the level of his general and special physical training.

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TRANSLATION STRATEGIES IN THE PROCESS OF REPRODUCING THE AUTHOR'S STYLE

Translation is the process of transforming a speech formation in one language into a speech formation in another [1, p. 127], and the dominance of the translator's style over the style of the original author is unacceptable, and the unity of content and form should be the subject of translation [2, с. 144]. Therefore, when translating any work of art, you should always strive to preserve a certain author's style of the original text.

If we are talking about translation strategies, it is usually a program of translation activities, which is formed on the basis of the general approach of the translator to the translation in a certain communicative situation of bilingual communication, which is determined by the specific features of this situation and the purpose of translation, and also determines the nature of the translator's professional behavior within a certain communicative situation [3, p. 172].

Such strategies are usually used to solve a number of problems that arise in the translation process. The choice of a particular method always depends on certain conditions and the objective of the translation. This process can also be affected by certain technical conditions: the timing of work, the dictionaries availability or the software availability. Last but not least, the translator should take into account different genre features, the target audience and, if possible, already existing translations of the work being worked on.

Based on the works of scientist T. V. Pastryk, the following translation strategies can be distinguished: cognitive strategies, personal translation strategies and cognitive-linguistic strategies. Of all possible, the most important are calculation (transcription, transliteration, transcoding) and transformation (addition, deletion or rearrangement of words, as well as paraphrasing and breaking complex sentences into two or more simple ones or combining simple ones into one complex one) [4].

If we approach this issue from the other side, from the side of linguistics, we can distinguish another classification of text adaptation strategies. There are only two of them, transitional and adaptive strategies.

The transitive strategy involves the closest translation to the original text, which accurately reproduces the formal characteristics of the author's style of the original. This is a direct, without any changes, transfer of all possible means of specificity in translation.

Adaptive strategy is an approach that focuses more on adapting the text for speakers of another language or culture. This method involves the use of a whole range of different transformative actions. Conventionally, this strategy can be divided into three substrategies. The first and the most common is linguistic and cultural adaptation, the purpose of which is to create the most complete and understandable translation for a native speaker of another language or culture, with explanation and adaptation of gaps. Next is genre adaptation, it determines the essence of the translator's transformative actions - the plot of the works is also changed, most potential lacunae are excluded from the translation text. And finally,

age adaptation, which is inherent mostly in children's literature, the purpose of such adaptation is simplification with the use of only common and colloquial vocabulary.

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BENCHMARKING AS A COMPONENT OF THE ENTERPRISE'S MARKETING POTENTIAL MANAGEMENT

Nowadays, where everything changes rapidly, the state of the outside world shapes the behavior of enterprises in the market, companies must be able to adapt to these

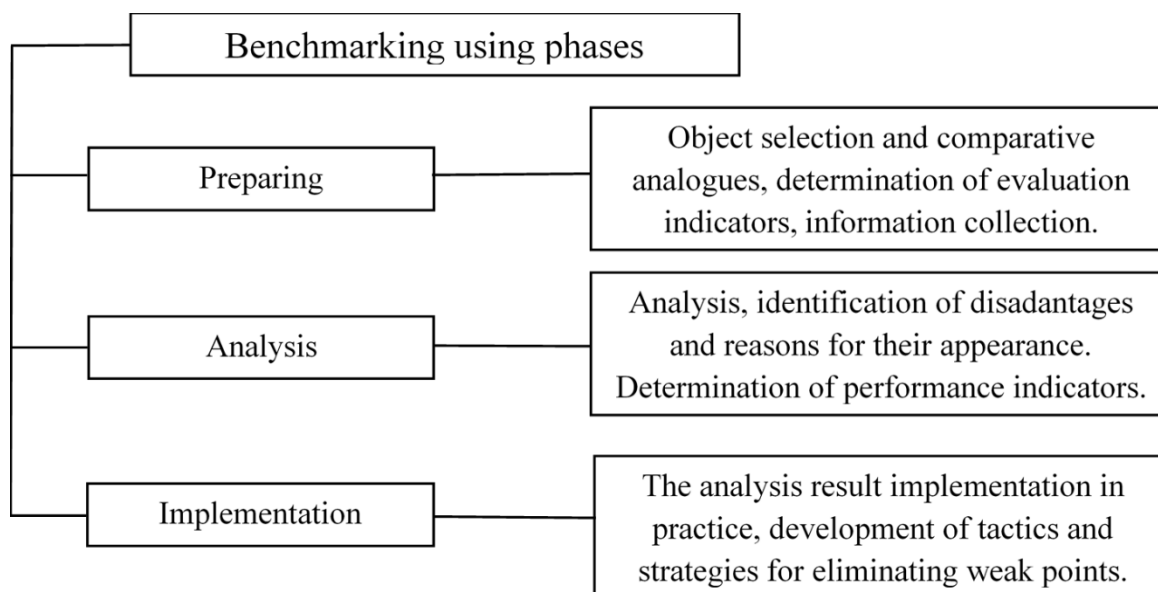
extremely complex and rapidly changing conditions in order to be effective and successful in their activities. In this difficult time of the war, not all companies were able to return to the usual rhythm of functioning, that is why benchmarking is one of successfully methods returning to the market, neutralizing mistakes and weak points, and improving the marketing potential of the enterprise. After all, increasing the level of competitiveness directly depends on correctly made marketing decisions regarding the marketing potential of the enterprise.

Benchmarking is a constant and continuous process, where the company conducts a comparative analysis with similar objects that are more successful in the market in order to adopt their work methods and principles in the future and improve its condition. There are 3 types of benchmarking:

1. Internal (comparison of different divisions of the same enterprise).
2. Focused on competitors (comparison of the same indicators with competitors, use of analogues in activities).
3. Functional (comparison with allies that will provide information about their activities, because they are interested in joint projects).

The using of benchmarking techniques will help weaker companies to adopt methods of operation and begin to function effectively at the wartime. It also allows you to expand the boundaries of managers' thinking, and will save resources for the development of new strategic solutions.

The effective implementation of the benchmarking methodology in the management and operation processes will reduce time which is spent on searching for solutions to tasks that have already been solved by competitors. Management staff has the role of organizing the adaptation of the solutions obtained through benchmarking to the existing tasks. To apply benchmarking, you need to know its phases. (Pic. 1)



Pic. 1 Benchmarking using phases

Therefore, marketing potential management of the enterprise solves the problems of taking into account political, economic, social, demographic, legal and cultural factors that can influence and improve the organization's activities. This makes it possible to form one's own safe development strategy, taking into account exogenous and endogenous factors.

In modern market and war conditions, it is important to monitor the work of competitors and improve the efficiency of their activities. That is why marketing potential management based on benchmarking is an advanced management tool.

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**THE GENERAL CHARACTERISTICS OF WARM-UP ACTIVITIES
AS AN EFFECTIVE TOOL IN COMMUNICATIVE LANGUAGE
TEACHING**

Many scientists state that a proper warm-up activity to start English class helps to achieve several important goals. Firstly, warm-up is a kind of bridge between their knowledge and the new material that the teacher is going to present during the lesson. Such activities establish connections between topics, activate students' schemata, and prepare them to comprehend new information based on a solid foundation of existing knowledge. The purpose of the warm-up is to catch the students' attention, or "ignite" them, use their memory and direct it into new material. Warm-up exercises or icebreakers are an interesting way to start the lesson [6, 30]. Ruiz and Ramirez say that it is necessary to start work with a good warm-up for better learning and positive results [7, 174]. To encourage students we need to use different types of warm-up exercises, for example, songs, games, and discussion questions [9, 243].

Many scientists discussed the question of whether it is appropriate to start a lesson with warm-up activities. Still, this stage is preparatory, during which students feel relaxed, which creates a positive atmosphere in the classroom [8, 129]. According to Robertson and Acklam, "warm-up is a short activity that can be used at the beginning of the lesson" [6, 30]. Velandia claims that warm-up helps students think in English, recall information that has been learned earlier, and awaken interest in the lesson [10, 11].

Lassche notes that for a language lesson, the warm-up stage is "initial orientation" [4]. For this, we use exercises with a triggering task to help students

calm down and help them start thinking in English. Thus, if students discover the objectives of the course and the future outcomes, then their success rate will be high. According to Richards and Bohlke, “a conscious goal and a clear result satisfied the learners because they create a precise indicator of success and a sense of accomplishment after it” [5, 25]. Teaching students is a purposeful activity in which teachers involve them to find out how important it is to learn the material and make this journey enjoyable [2, 55]. A quick warm-up can be the creation of a connection between students and educational materials [1, 8].

Velandia offers different design principles for training. According to him, the warm-up should be provided at the beginning of the lesson. This helps teachers to attract students' attention because it is effective to work with students who are motivated from the beginning. Usually, warm-up is a short-term activity, which is a so-called preparatory stage for other parts of the lesson. It should cover the topic of the lesson so that students can participate in different stages and easily develop their language skills [3, 63]. Robertson and Acklam also describe the main features of the warm-up [6, 4]. They believe that such exercises should motivate students to communicate exclusively in English.

A good warm-up should be fun and stimulate students' curiosity. For example, using leading questions, students can guess what the topic of the lesson will be, what will be discussed in detail during the lesson, and why it is important. Therefore, in the course of this stage, it is useful to use visual material, questions on the board, or short videos on a certain topic. This small work leads to big achievements because it “prepares the ground” for more complete and effective absorption of new material. Usually, after the warm-up, the objectives and tasks of the lesson are discussed, which also aim at stimulating the interest and motivation of the students and informing them about the real and useful skills that they will receive in the lesson.

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UKRAINE IN THE NORTH WAR 1700-1721

The purpose of this article is to analyze the socio-political processes that took place on the territory of Ukraine at the beginning of the 18th century, to determine the reasons for the participation of Ukraine, and Mazepa in particular, in the Northern War, and its transfer to the side of Charles XII.

The political situation of Ukraine during the 18th century has changed fundamentally. As a result of an unfavorable coincidence of circumstances, Ukrainian statehood and the Cossack system were gradually destroyed. The first step in this direction was taken in the first quarter of the century during the reign of Peter I (1689–1725) in Russia.

Russia met the beginning of the new century as a large country, but poorly developed in all respects. For the successful development of economy and culture, to increase its defense capability, it needed access to the Black or Baltic seas. Not finding allies to continue the struggle against the Porte, Peter I reoriented himself to the northern option. He entered into a coalition with Poland, Saxony and Denmark, interested in ousting the Swedes from the southern Baltic. The war with Sweden began in 1700, was called the Northern War, and lasted 21 years. Russia played a major role in it.

On November 19, 1700, in the very first battle near Narva, the ill-prepared Russian army, which included about 7,000 Ukrainian Cossacks, was defeated. After that, the Swedish king Karl HP led his army to Poland and Saxony, defeated August P of Saxony and supported the election of the pro-Swedish nobility of the new king - Stanislav Leshchynsky. The campaign lasted from 1701 to 1707. It gave Peter I a rest, which he made the most of: he gathered a new army, armed and trained it, and

also conducted a number of successful operations in the Baltic region, during which he recaptured the mouth of the Neva and gained access to the sea.

To achieve victory over the Swedes, the king tried to use all available resources of his state. The same efforts were demanded from Ukraine as from the Russian provinces, regardless of treaties, economic circumstances, or political sentiments.

The Northern War quickly became extremely unpopular in the Hetmanate. Its goals were foreign to Ukraine. The negative attitude towards it was caused by the unusually harsh climate of the Baltic region and the subordination of the Cossacks to the Russian command, which behaved arrogantly and unfairly. In addition to direct participation in military campaigns, Ukrainians were widely involved in the construction of St. Petersburg and various fortifications. The population was subject to additional taxes and forced to support numerous Russian troops that constantly moved around the territory of the Hetmanship.

The Right Bank became the first Ukrainian land to be the immediate arena of hostilities. Here in the spring of 1704, by order of the king, I. Mazepa went with his regiments to help Augustus II. A significant force of Russians crossed the Dnipro together with the Ukrainians. By joint efforts, they helped the king suppress the uprising of the right-bank Cossacks. But it was not possible to overcome the main enemy - the Swedes and supporters of Leshchynskyi. In the spring and summer of 1706, Charles XII pushed August into Saxony. The combined Russian-Ukrainian army also moved west and occupied Galicia. During the following year, she continued her struggle on the Polish ethnic lands. And the territories along the right bank of the Dnieper were actually under the control of Mazepa for the next three years.

One of the reasons. What caused the Swedes to come to Ukraine was the conclusion of a secret alliance in 1707 between Leshchynskyi and Mazepa and the latter's subsequent contacts with Charles XII. The Swedish king was to become the guarantor of the implementation of the Polish-Ukrainian agreement on the inclusion of the Hetmanate into the Commonwealth of Nations on terms of equality with other

members of the federation. The aspirations of the hetman coincided with the interests of the Swedish state, and he promised Karl help with troops, food, and weapons. In this action, one should hardly look for any private interest of Mazepa - he was 70 years old, he was a childless widower and had everything a person could dream of: money, power, respect and trust of the king. The main reasons that prompted him to break the alliance with Moscow were the state and prospects for the development of Ukrainian-Russian relations, which posed a real threat to the interests of the hetman, the Cossack leadership, and Ukrainian statehood.

Relations between Ukraine and Russia from the beginning were based on the principles of vassalage, traditional for that time. They provided for the free choice of the suzerain, the service and obedience of the vassal in exchange for protection from enemies, as well as non-interference in internal affairs. However, overlords always tried to increase their rights. And Russia was no exception, as evidenced by half a century of experience of living together. In the Petrovsky period, which is characterized by the strengthening of autocracy, this trend of further development of relations between Ukraine and Russia gained momentum. It objectively led to the gradual rapprochement and unification, on the basis of Russification, of social life in both countries, and therefore to the liquidation of the Ukrainian state with its specific system and class structure. The hetman and the Cossack foreman were aware of this and were afraid of losing their ancient state rights and privileges. Rumors about the tsar's intentions to abolish the hetmanship and reorganize the Cossack regiments into regular units, the disregard of Ukrainian national interests by representatives of the central government, and numerous misunderstandings and clashes between Russian leaders and the Ukrainian masses for various reasons created grounds for concern. In addition, Peter I violated the basic principle of vassalage - he refused to provide assistance to Ukraine before the threat of an enemy invasion (Polish or Swedish).

As a result, the contradictions between the absolutist government and the Cossack elite escalated to the edge and led to an open conflict.

Typical for Europe of the 17th–18th centuries. the conflict was resolved by traditional methods. Hetman decided to break the alliance with Moscow and find another superior. In 1707–1708, it was not even necessary to look for him - Charles XII was finishing the Saxon military campaign and preparing for the Moscow campaign. In the event of a Swedish victory (and no one in Europe doubted this), the Hetmanship, with the support of the king, would be freed from royal protection and the danger of losing its statehood and its own path of further development. Under such conditions, even the union with Poland had positive features, since the freewoman of the nobility was always a model for the foreman.

Mazepa made contacts with the Polish and Swedish kings in deep secrecy. Only a limited circle of people from the hetman's inner circle knew about them. Therefore, when the performance took place, it was a surprise not only for Russians, but also for most senior officers. Mazepa delayed for a long time with an open transition to the side of the Swedes. But, when they arrived on Ukrainian land, he had to make a final decision about who he was with.

On October 24, the hetman left his residence in Baturin and set out with several thousand Cossacks in the direction of the Swedish camp. The general scribe P. Orlyk, the general cartman I. Lomykovskiyi, the general osavul H. Hertsik, the general bunchuzhny, F. Mirovych and other senior officers deliberately went with him. Private Cossacks were informed where they were being taken only after crossing the Desna. Some of them turned back. About 3–4 thousand remained with Mazepa, instead of the 30 thousand promised to the king.

The king's reaction was quick: the Hetman's capital Baturin was attacked and taken. Large stocks of food and weapons were taken from it, the defenders of the city, even women and children were executed (some of the tortured were sent down the Diet on rafts), and the city itself was wiped off the face of the earth.

A real propaganda war has unfolded in Ukraine - the so-called "war of manifestos". Each of the parties - Karl KhP, Peter I, Mazepa, and soon the new hetman joined them - explained their position. Mazepa's act was immediately officially assessed as treason. He was cursed in all the churches. Repression began

against his real and imaginary supporters. All their possessions were confiscated and distributed to those who remained loyal to the king. Mazepa's appeals to support the Swedes as allies who came to the Hetmanship to liberate it "from slavery and contempt and restore it to the highest degree of freedom and autocracy" did not find the desired response among the masses. There were many reasons for that. First of all, the very fact of the presence of foreign soldiers in Ukraine, including Lutherans, caused a prejudiced attitude among the deeply believing Orthodox population. The religious factor became the main factor for the clergy as well - it did not follow the hetman. Secondly, the status interests of the elders, which Mazepa defended, were foreign to the peasantry and the bourgeoisie. Thirdly, the people were disoriented by the conflicting propaganda of the warring parties. The presence of the Russian army on Ukrainian soil also played a role. She neutralized possible pro-Swedish speeches. Mazepa could be supported by the Cossacks and, especially, by the foreman. But the Cossack army was scattered across the vast theater of war, and most of the senior officers and important Cossacks remained loyal to Peter I. Their decision was influenced by the tsar's promises to leave untouched the traditional Cossack rights and privileges, repressions against the Mazepyns, and some other factors.

On November 6, 1708, by order of Peter, in the new hetman's residence in Glukhiv, the Cossack elders gathered for a council. Colonel Ivan Skoropadsky (1708–1722) from Starodub was elected hetman instead of Mazepa. In order to prevent new betrayal, a royal resident was attached to him for supervision.

From the very beginning of the Swedes' stay in the Hetman region, they did not receive what they expected: neither help with food, fodder, ammunition, nor military personnel, nor even the loyalty of the population. Under the leadership of the new hetman, a nationwide struggle against the occupiers began in Ukraine. Together with Russian units, Ukrainian Cossacks repelled the assault on Starodub and Novgorod-Siversky, heroically defended Zinkov, Vepryk and other cities. From Smolensk, the tsarist army carried out "scorched earth" tactics, but it was not possible to stop the advance of the Swedes on Ukrainian land.

The Swedes spent the winter of 1708–1709 in the Romny–Hadyach area. The winter was fierce. In December alone, they lost 3–4 thousand to frostbite, they lacked warm clothes, food, and gunpowder. There were no major battles, but small skirmishes almost did not stop.

At the end of January, Karl led his army to Slobid Ukraine, intending to go to the Wild Field and, uniting with the Tatars, march on Moscow. However, having met serious resistance, he was forced to return to the Hetmanate. At the beginning of spring, the Swedes found themselves in a strategic encirclement: Menshikov with a large detachment stood in Bogodukhiv and blocked the way to Kharkiv-Moscow, and the regiments of Sheremetev and Skoropadsky were located in the west. The position of the Swedes was catastrophic, but Peter's proposal to conclude peace was rejected. The king hoped for the entry into the war of the Ottoman Empire and the Crimean Khanate (negotiations were underway) and military support from Poland. These hopes turned out to be in vain. Instead, he received unexpected help from the Zaporozhians.

In March 1709, a council was held in Sich, which by a majority of votes decided to break the alliance with Moscow and support Mazepa. A large detachment of Zaporozhians headed by Kost Hordienko, the chieftain of the Cossacks, set out to join the Swedes. After the first battle and victory over the Russians in the village of Tsarichanka, this squad has grown to 15,000. On the way to the king's pond, he took possession of a number of towns along the rivers Orel, Vorskla and Dnipro. On March 23, Gordienko and Mazepa, together with their Cossacks, swore allegiance to Karp XII.

Peter I responded to the treachery of the Zaporozhians harshly. While Gordienko was fighting in the Hetmanship, tsarist troops were sent to Sich. On May 14, 1709, Sich was stormed and burned, and its defenders were executed. For the future, the Zaporozhians were forbidden to settle within the borders of Russia.

At the beginning of April, the Swedes tried to seize an important strategic point on the territory of the Hetman region - the city of Poltava. Routes to Moscow and the Crimea passed through it, and significant supplies of food, so necessary for

the army, were collected here. But it was not possible to seize the city immediately. It was besieged for 87 days. During this time, both warring parties have drawn all their main forces here.

On June 27, the decisive battle for Poltava began. Ukrainians were on both sides of the front line, but did not play a significant role. The Russians had an advantage in both manpower and artillery. However, they didn't even have to put all the available parts into battle. The battle lasted two hours. The Swedes lost it. They lost 9,000 killed and 13,000 captured.

Karl HP, wounded the day before, did not take a direct part in the battle. After learning about the defeat, he left his army on his own accord and, accompanied by a small detachment led by Mazepa, headed for the Turkish borders with the Cossacks.

The remnants of the defeated Swedish army ran after the king - about 16 thousand, together with a large detachment of Zaporozhians. From June 0 at the crossing over the Dnipro in the village of O. Menshikov's cavalry and S. Palia's Cossacks overtook them in Perevolochna. Completely demoralized, the Swedes surrendered without a fight. The captured Zaporozhians were severely punished. It was not possible to capture Karl KhP and I. Mazepa - the Zaporizhia took them across the steppe into Turkish possessions. Left-bank Ukraine was cleansed of foreign invaders.

The Battle of Poltava was a turning point in the entire Northern War. The Swedish army, which until then was considered invincible, was completely defeated. Russia's authority on the international arena rose extremely high, as a result of which Poland and Denmark renewed their alliance with it and joined the war.

Russia's victory at Poltava had huge consequences for Ukraine as well - the conditions for the formation and development of an anti-Moscow social movement were destroyed here. The tsar took a number of measures to limit Ukrainian autonomy: he did not sign the next articles, appointed a resident to the Hetman,

stationed an additional 10 dragoon regiments on the territory of the Hetmanship. This marked the beginning of the destruction of Ukrainian statehood.

Oppression continued even after the end of the war. Thousands of Ukrainians who supported Mazepa laid down their arms and repented. Some of them were pardoned, some were executed. A small group of elders and several thousand Cossacks went with Mazepa to emigration. Mazepa did not survive the collapse of his idea for long - he died on September 22. After long disputes among the people of Mazepyn, in 1710, the former general clerk Pylyp Orlyk (1710–1742) was elected hetman.

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PROPERTIES OF THERAPEUTIC PHYSICAL CULTURE

In modern life, a low level of physical fitness leads to an increase in diseases associated with a sedentary lifestyle.

However, it was stated in the works of domestic scientists that physical exercises used in rehabilitation significantly increase the effectiveness of treatment measures and shorten the length of stay of the patient in the hospital.

In the studies conducted, systematic physical education during rehabilitation led to improved health indicators, namely normalization of blood pressure, glucose, cholesterol, heart rate, improved mobility and increased energy, back pain disappeared, and metabolism improved due to weight loss,

It was found that therapeutic physical culture can be used as the main method of treatment or as an auxiliary component. It has been found that therapeutic physical culture is an effective and universal means of influencing the human body for the purpose of recovery and treatment, and its organization has its own content and methodical features. Therapeutic physical culture is not only a therapeutic and preventive tool, but also a therapeutic and pedagogical process.

The use of physical culture instills in the patient a conscious attitude and active participation in the rehabilitation process, which is based on teaching the patient physical exercises. In this regard, physical culture is not only a therapeutic, but also a pedagogical process. It was found out that a feature of therapeutic physical culture is the process of dosed training during rehabilitation. The author of the article comes to the conclusion that a set of exercises for each patient should be developed personally so that they directly affect the affected area or organ.

It was also found that the method of exercise depends on the diagnosis and stage of the disease. The volume and intensity of the load is the most important principle in the application of a complex of physical exercises. The following levels of intensity are defined: low, moderate, high and maximum. It was found that low-intensity exercises include movements of small muscle groups, they are performed at a slow pace, and physiological changes are minimal. Movements performed by large and medium muscles at a slow and medium pace are classified as exercises of moderate power.

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THE FOLKLORE HERITAGE OF MYKHAIL DRAGHOMANOV

The folkloristic direction has always occupied a significant place in the work of the great scientist. M. Drahomanov began to show interest in Ukrainian identity since childhood, but he began to deal with it more seriously from the end of the 60s of the XIX century. He did this first of all to popularize Ukrainian folkloric thought in contrast to the Russian one, which is beginning to spread actively at this time[4,p.97].

In particular, he published the first folklore collection in 1863, it was "Historical Songs of the Little Russian People". This collection makes it possible to understand the whole essence of Ukrainian folklore literature and the identity of our people, it made it possible not to forget this creativity, to preserve it and bring it to our times, which is very important for our culture now[2, p.111].

Also, his fundamental work in this direction is the article "Little Russia in its literature" (1869), in which he demonstrates the cultural relations of the Ukrainian lands with other Slavic states. He also published the work "Little Russian folk tales and stories" (1876), in which he vividly and skilfully depicts the folk ideas of those times [1, p. 3–8].

The researcher vividly showed and tried to explain in his works certain reasons of a domestic or social nature that lead to the appearance of one or another image, plot or motive. For example, such a psychological work can serve as "The Fatal Widow", which was published in 1888 in the collection "Kievskaya Starina" [4, p.98].

In emigration, the scientist was actively involved in folkloristic activities, in particular, in 1889, M. Drahomanov's article "Slavic stories about the sacrifice of one's own child" was published in the collection "Anthologies of Folklore, Science and Literature", which provided a general description of literature, its origin, development and social role. The researcher tries to systematize the organic connection of legends in order to show the ideas of reconciliation and unity of these works in different countries[3, p.84].

Summing up, it is worth saying that M. Drahomanov vividly revealed issues of a social nature in his work, approaching them as a psychologist. He also highlighted the historical and political problems that arose at that time through folkloric themes, besides that, in his works he spoke about the identity and excellence of Ukrainians, paying a lot of attention to religious issues. He used various sources, and also brought a lot of Europeanism to Ukrainian folkloristics, talking about the fact that we are interconnected with each other and develop in the same cultural space, that we will build the future together, which is exactly what we, his descendants, are trying to do.

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MATHEMATICAL MODELING

Mathematical modeling is a method of studying processes or phenomena by creating their mathematical models and studying these models. Mathematical models are studied with the help of analog calculators, digital calculators, and computers.

At the beginning of the 60s, one of the methods of mathematical modeling was developed - quasi-analog modeling. This method consists in researching not the investigated phenomenon, but a phenomenon or process of a different physical nature, which is described by ratios equivalent to the obtained results.

Mathematical modeling to one degree or another is used by all natural and social sciences that use mathematical apparatus to obtain a simplified description of reality with the help of mathematical concepts. M.m. allows you to replace the real object with its model and then study the latter. As in the case of any modeling, the mathematical model does not describe the phenomenon absolutely adequately, which leaves the question of the applicability of the data obtained in this way relevant. Mathematical modeling is widely used in mining, geology, for the study and analysis of mineral processing processes.

The main stages of mathematical modeling:

- 1) Construction of the model;
- 2) Solving the mathematical problem to which the model leads;
- 3) Interpretation of the obtained results from the mathematical model;

4) Checking the adequacy of the model;

5) Modification of the model.

So, mathematical modeling is the process of studying and building mathematical models.

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SOLUTIONS IN CHEMICAL TECHNOLOGY

Solutions are homogeneous systems consisting of two or more components. Solutions are important for chemical technology. Many chemical industries are associated with processes that take place in solutions. The study of solutions is important not only for chemistry and chemical technology but also for metallurgy, biology and medicine. The components that make up the solution are called solvent and dissolved substances.

A solvent is a component that is in the same aggregate state as the solution. Let's take potassium permanganate and water as an example. Water is the solvent and potassium permanganate is dissolved substance. If both components are liquids then the component with the larger volume is considered the solvent.

A characteristic feature of the solution is its homogeneity. This can be explained by the fact that dissolved substances are crushed into separate molecules or ions that can't form an independent phase – they are called true.

The process of forming a solution consists in the destruction of bonds between the molecules (ions) of the original substance and the formation of new bonds between the molecules (ions) of the dissolved substance and the solvent. By concentration solutions are divided into saturated unsaturated and supersaturated. According to the presence or absence of electrolytic dissociation of the dissolved substance into ions solutions of electrolytes and solutions of non-electrolytes are distinguished.

Solutions also have certain properties different from the properties of their constituent parts. They differ in density, freezing and boiling points and other properties. There are a number of properties of solutions that depend on the concentration but not on the nature of the dissolved substances they are called colligative. Solutions acquire liquid, solid, gaseous states. Liquid solutions of sugar, salt; solid copper, silver; gases are mixtures of gases.

As mentioned above, solutions are saturated unsaturated and supersaturated. A saturated solution is a solution in which the substance is no longer soluble at a given temperature. A supersaturated solution is a solution in which there is more solute than needed. An unsaturated solution is a solution in which there is not enough solute.

So solutions play a very important role in human life. They surround us everywhere. In various fields of chemistry, biology, industry etc. In the field of technology such as leather production, paper production, sugar, fertilizers, medicine and much more. All this is inextricably linked with the wide use of solutions. Therefore solution is an important branch of chemistry that you should know about.

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LEARNING OBJECT-ORIENTED PROGRAMMING AT SCHOOL

Introduction. In connection with the rapid development of the latest technologies in programming, it is increasingly possible to meet the object-oriented approach to programming, so it is clear why in the computer science school course they begin to study such topics as "Paradigms and technologies of programming", after studying which students should be able to design object-oriented architecture of software solutions, create object-oriented software solutions, etc. Since this course is just beginning to be introduced into the school curriculum, it is found only in the programs of specialized classes, where computer science is studied from elementary school. Therefore, although it is clear that education that includes the study of the topic will be of higher quality, teachers try to bypass this selective block due to the problem of selecting methods for learning object-oriented programming and the complexity of presenting the material. But taking into account all the advantages, such as: the development of object-oriented thinking and abstract ideas in students, it becomes clear why such a topic should be studied in standard-level classes as well.

Presenting main material. The term object-oriented programming is used to mean many things, the key term here being "object". Objects are entities that combine procedural and data properties as they perform computations and maintain local state. The uniform use of objects contrasts with the use of separate procedures and data in conventional programming. An object consists of two elements: data and

functions (called methods) that work with the data. For example, objects are strings, and data are letters that make up a string. This applies not only to strings, but also to integers, decimals, and even functions.

An object-oriented approach to programming is based on manipulating objects. This means that the development of program logic is achieved by defining classes of various objects and using the interaction of objects.

The first attempts to teach object-oriented programming at school proved that students who had previously studied programming at least at a basic level learn OOP worse, due to a completely different thought process, than those who first understood the basics of OOP and then began to develop knowledge of programming. This phenomenon was called a "paradigm shift" and began to appear in sources more and more often.

So it becomes clear that when a topic such as "Programming Paradigms" is introduced into the school curriculum in the school computer science course, it is necessary to introduce the study of object-oriented programming into the computer science course in advance before learning the basics of programming. This statement is held by certain teachers and scientists. Thus, scientists investigating this concept proved in the course of experiments that "interaction with objects from the very beginning helped students build a concrete understanding and provided appropriate conceptual models. Those who study object-oriented programming can easily focus on the concepts of class and object relationships instead of focusing on the facts of structured programming." [1]

However, there is also the reverse statement that the sequence of study is of no importance. Thus, as a result of experimental research by two scientists, it was announced: "The main result of the study says that there is no difference between learning object-oriented programming first, and then the basics of programming (OOP-first), or vice versa - first the basics of programming, and then OOP (OOP-later) - it does not affect the learning result". [2]

It is also worth mentioning experimental studies that show differences in the understanding of object-oriented style programming texts. As a result of this

experiment, a sharp contrast between the mental representations of imperative and object-oriented programs was revealed. While comprehension of imperative programs was generally better than that of object-oriented programs, perceptions of imperative programs focused on program-level knowledge. On the other hand, the mental representations of object-oriented programs focus more on domain-level knowledge.[3]

As a result, it becomes obvious that object-oriented programming must be studied in a mandatory module of the program, and it does not matter whether it will be preceded by the study of the basics of programming, because, analyzing the research conducted on this topic, it becomes clear that object-oriented programming expands the possibilities of thinking under any conditions of its study.

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LOGARITHMS AND THEIR BASIC PROPERTIES

The first beginnings of the concept of logarithm can be traced to Archimedes, but the idea itself did not develop. Three hundred years ago, during the Renaissance, the rapid development of science, technology and navigation began. The development of astronomy, or rather, astronomical observations, required new methods of calculation that would be accessible to a wide range of people. These methods are based on logarithms.

The first tables of logarithms were compiled by the Swiss mechanic, watchmaker, astronomer and mathematician I. Burgi (1552-1632). For a long time, he did not dare to publish them, and only in 1620, at Kepler's insistence, he published them. The original of these tables is currently kept at the Pulkovo Observatory in St. Petersburg.

The definition of logarithm can be briefly written as follows. $\log_a b = x$. This equality holds $b > 0$, $a > 0$, $a \neq 1$ and is called the basic logarithmic identity. For example: $2^{\log_2 5} = 5$; $2^{-\log_2 5} = (2^{\log_2 5})^{-1} = 1/5$. Basic properties of logarithms The properties of logarithms are often used when performing transformations of expressions containing logarithms, during calculations, and when solving equations and inequalities. For any $a > 0$, $a \neq 1$ and any positive x and y , the following equations apply:

$$\log_a 1 = 0;$$

$$\log_a a = 1;$$

$$\log_a xy = \log_a x + \log_a y;$$

$$\log_a \frac{x}{y} = \log_a x - \log_a y;$$

$$\log_a x^p = p \log_a x (p \in \mathbb{R});$$

$$\log_a x = \frac{1}{p} \log_a x^p (p \in \mathbb{R}, p \neq 0);$$

$\log_a x = \log_b x \log_b a$ ($b > 0, b \neq 1$).

Logarithms of numbers

The equation $ax=b$, where $a > 0, a \neq 1, b > 0$, has one root. It is called the logarithm of a number with base b and is denoted $\log_b a$. For example, the root of the equation $2^x=8$ is the number 3, that is, $\log_2 8=3$. The logarithm of a positive number b to the base a , where $a > 0, a \neq 1$, is called the power by which the number a must be raised to obtain the number b . For example: $\log_2 8=3$ because $2^3=8$; $\log_2 14=-2$ because $2^{-2}=14$; $\log_7 1=0$ because $7^0=1$.

Logarithmic function

A function of the form $y=\log_a x$, where $a > 0, a \neq 1$ is called logarithmic. Basic properties of the sliding function. The definition range is $(0; +\infty)$. The range of values is the set of all real numbers R . If $x=1$, then $y=0$. The function $y=\log_a x$ is neither even nor odd. If $a > 1$ the function $y=\log_a x$ increases, and if $0 < a < 1$ it decreases. If $a > 1$ and $x > 1$, then $y=\log_a x > 0$. If $a > 1$ and $0 < x < 1$, then $y=\log_a x < 0$. If $0 < a < 1$ and $x > 1$, then $y=\log_a x < 0$. If $0 < a < 1$ and $0 < x < 1$, then $y=\log_a x > 0$. The graph of the function $y=\log_a x$: When finding the definition area, you should remember: 1) If the function has the form $y=\log_a(f(x)), a > 1, a \neq 1$, then $f(x) > 0$ should be considered (only a positive expression can be under the logarithm sign).

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AND WHAT DO YOU KNOW ABOUT A SPEECH THERAPIST?

And did you know that the name of the profession comes from the Greek words *logos* and *paideia*, which means «language education»? In ancient times,

speech defects were not corrected. Such problems as stuttering, lisp, wheezing, hoarseness, etc. Remained with a person for life. And only in the 17th century, scientists began to pay attention to pronunciation and the discomfort it causes. At first, speech disorders were considered a medical problem. This continued until the 1930s, when the development of science proved that speech defects are not only related to problems of articulation or breathing, but also to the psychology of the individual. In Ukraine, this profession became popular in the 20th century and works not only in the direction of correcting pronunciation, writing (dysgraphia) and reading (dyslexia).

It seems to many that there is nothing difficult in speech therapy – choose the appropriate tasks and monitor their implementation. But this is far from the case. In order to competently analyze the problem, identify its causes, peculiarities of the flow, a specialist must possess many professional skills: good knowledge of the anatomical structure of the speech apparatus; understand aspects of articulation, sound production and phonetic processes; know the basics of child psychology and pedagogy; to be able to perform logopedic massage to relax the muscles of the larynx and not be shy to show «on yourself» the necessary movements and actions;

to be able to work with medical cards, dynamics graphs, cooperate in a team with teachers, psychologists and medical workers (ENT, neuropsychologist, orthodontist).

A speech therapist is not only a doctor, but also a teacher who must have an unlimited amount of patience and understanding, find an approach to everyone, use interesting exercises in a playful way, help overcome complexes. At the same time, every speech therapist understands that the result depends not only on his professionalism, but also on the parents' compliance with the recommendations and repeated repetitions of the tasks by the child. Depending on the case, the first results may appear after several months or even years.

A speech therapist can be both broad-based and focused on a specific disorder. If, in addition to language deficiencies, the child has health problems, such as poor hearing, vision, or a reduced level of intelligence, then it is better to sign him up for

classes with a speech therapist specializing in defectology. Accompanying a child with a speech therapist from birth is very popular abroad.

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INTERACTIVE METHODS OF TEACHING AT THE LESSONS OF FOREIGN LITERATURE

During the period of education reform, the role of the teacher in education the process must be rethought by everyone, and everyone must understand how to realize their role in the life of our state and in the lives of their students, to systematize everything acquired, discovered in daily painstaking work.

To make the learning process interesting, diverse, effective and democratic, the teacher needs to take a step on the way to mastering new pedagogical technologies, this is what directs his activity to the choice of innovative forms and training methods, which are based on the preparation of a young person to civic activity in society, awareness of one's national identity belonging, a sense of belonging to the national community, the name of which is Ukrainian people.

Application of interactive teaching methods in foreign lessons literature, their systematic use is relevant for modern education and acts as a fundamental component in the formation of a competent personality of the student as a citizen of a democratic society.

The technology of the lesson involves the use of an interactive learning model as a type of active learning. It is known from the history of pedagogy that this model

is still at the beginning of the 20th century. used by A. Rivin from the city of Koryn, based on his own methods of the idea "teach others, learn yourself".

Further development of the elements of interactive learning can be found in works of V. Sukhomlynskyi, works of innovative teachers of the 1970s and 1980s (Sh. Amonashvili, V. Shatalova, E. Illina). According to O. Pometun and L. Pirozhenko, the essence of interactive learning is that "the learning process takes place according to conditions for constant, active interaction of all students. This is co-education, mutual learning, where both the student and the teacher are equal, equivalent subjects of learning, understand what they are doing, reflect on the occasion of what they know, know how and do."

It is important to the development and formation of students' competencies, combination of traditional and innovative technologies of educational organization

activities. We give preference to the personally oriented and active approaches that are quite relevant today and involve the development and self-development of the child, his formation as an individual, taking into account individual characteristics, inclinations, interests, value orientations and subjective experience. These technologies contribute to the individualization of learning, implementation of a differentiated approach, in addition, self-expression, self-realization of the individual is also helped by problem-based learning.

Constant active interaction of all participants in the educational process provided thanks to interactive technologies. Forms and methods of these technologies help to involve all students in the class, contribute to the work development of communicative competences.

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WHAT IS POST-TRAUMATIC STRESS DISORDER?

Post-traumatic stress disorder (PTSD) - is a reaction to a severe stressor that threatens a person's life.

PTSD usually begins to manifest about six months after the traumatic event. Acute stress disorder develops during the first month after a traumatic event. Symptoms that last more than a month may indicate post-traumatic stress disorder in the affected person. If the stressor has a strong long-term effect (for example, being under occupation, constant situations of shelling and air raids, etc.), the probability of rapid development of PTSD

increases. A person constantly remembers the event that traumatized him. As if she is "standing in front of the eyes", the feelings that a person had during the event may also return.

It can also be reminded of various everyday circumstances. It can also manifest itself in the form of nightmares. That is, a person is haunted by memories. And a person constantly experiences the mentioned again and again - with fear, with pain, with regret. There are also other symptoms - memory impairment, constant tension, palpitations, constant feeling of anxiety. Many people with these symptoms will be able to manage and heal on their own.

Now this question is relevant, because there is a war in our country, and many people have suffered from it. In most people, the manifestations of stress, bad sleep, intrusive memories after a traumatic situation are short-lived and eventually disappear on their own. This is a normal reaction to abnormal conditions. But if they do not subside within days or even weeks, this may be a manifestation of PTSD. If the person is not willing to talk about the traumatic event, do not pressure them. It is difficult for her to talk about it. Make it clear that if the person wants to talk, you are ready to listen.

If you suspect that you or a loved one has PTSD, you should immediately seek help from a psychotherapist or psychologist. The sooner PTSD is detected, the easier and faster it is to cure. PTSD is not a sign of weakness or inability to "get a hold of yourself", "not to let go". In order to overcome this condition, it is necessary to accept the traumatic event as part of your past, not to try to "forget" it, not to distance yourself from it. It is necessary to survive, accept – and let go. With the support of a specialist, it is easier to do this.

Treatment of PTSD is a long and difficult process. Specialists and loved ones are ready to help you on the way to recovery.

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CREATIVITY AS THE BASIS OF A COACH'S PEDAGOGICAL SKILLS

Taking into account the fact that sport is a sphere of unified comparison of achievements in certain types of physical exercises, its central figure is the person himself, the athlete. Ever since people began to specially prepare for participation in competitions, another person appeared next to the athlete - his adviser, mentor, teacher, or in other words, a coach. Naturally, at first "coaching" had a non-professional nature. But over time, when it came to the establishment of special institutions (as it happened already in ancient Greece), teachers of "physical exercises" also appeared. Depending on the functions performed, ancient Greek trainers were divided into three categories: "gymnastis" - programmer, "pedotribis" - program executor, and "alyptis" - massage assistant.

Greek gymnastic coaches brought training methods to a high, even by today's standards, level. They skillfully guided the athlete to engage in one or another type of physical exercise, thoughtfully applied psychological training and dietetics. They used developed systems for the development of physical qualities, methods of learning exercise techniques, while knowing holistic and disaggregated methods of learning. The Greeks clearly divided the process of training athletes into cycles: a 4-year macrocycle and a 4-day microcycle (tetra).

Today, the coach is one of the most important figures in sports, without whom one cannot imagine modern sports activities. And it is simply impossible to bring an athlete to the level of international results without the help of a coach. Modern

trainers are trained in special higher educational institutions. Most coaches, as a rule, have considerable experience in sports activities and a large amount of theoretical knowledge from various fields of science: sports theory, medical and biological disciplines, humanitarian sciences, etc.

Trainers in Ukraine are trained by higher educational institutions of III and IV levels of accreditation. The vast majority of graduates are assigned the "specialist" qualification level.

Taking into account education, work experience, performed functions and specific achievements of individual students or teams, coaches today are divided into appropriate categories.

The category of coaches affects the level of their salary. It is established by the Pedagogical

Councils of sports organizations in which coaches work and approved by the relevant bodies of state sports management.

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POLYNOMIALS AND ACTIONS ON THEM

A polynomial is an algebraic sum of several monomials.

For example: $3x + ab + 2$; $172B - 2x + a$ —polynomials.

The monomials that make up a polynomial are called its terms. A monomial is a separate type of polynomial a polynomial containing two or three terms is called a binomial or trinomial, respectively.

For example: $a^2 - b^2$, $X + Y$ — binomials; $a + ab + b$, $X^2 + XY - Y^2$ — trinomials.

Similar terms of a polynomial are identical monomials, or monomials whose entry in standard form differs only in coefficients.

For example: in the polynomial $15a^2b + 3ab^2 - 7a^2b + 5ab^2$, the first and third, second and fourth terms are similar.

Reducing similar terms is a simplification of a polynomial, in which the algebraic sum of similar terms is replaced by a single term. To reduce such terms, you need to add their coefficients and multiply the result by their common letter part.

For example: $15a^2b + 3ab^2 - 7a^2b + 5ab^2 = 8a^2b + 8ab^2$.

The standard form of a polynomial is a record of a polynomial whose terms have a standard form and there are no similar ones among them.

For example: $A^2 - ab + b^2$, $ab + BS + AC$ are standard polynomials, and $3a^2 + 2b^2 - 3ab + A^2$ is a non - standard polynomial.

The power of a standard polynomial is the largest of the powers of the monomials that make up the polynomial. The degree of an arbitrary polynomial is the degree of an identically equal polynomial of the standard form.

For example: the degree of the polynomial $5a^7b + 5ab^5 - 2a^5b^5$ is equal to the degree of the monomial $-2a^5b^5$

Actions on polynomials

When adding polynomials, use the rule of opening parentheses: if the parentheses are preceded by a "+" sign, then the parentheses can be omitted, preserving the signs of each monomial.

For example: $(3x^2 - 2x + 5) + (6x^2 + 5x - 3) = 3x^2 - 2x + 5 + 6x^2 + 5x - 3 = 9x^2 + 3x + 2.$

When subtracting polynomials, use the rule of opening parentheses: if the parentheses are preceded by a "-" sign, then the parentheses can be omitted by changing the sign of each monomial contained in parentheses to the opposite.

For example: $(3x^2 - 2x + 5) - (6x^2 + 5x - 3) = 3x^2 - 2x + 5 - 6x^2 - 5x + 3 = -3x^2 - 7x + 8.$

To write an algebraic sum of several polynomials as a standard polynomial, you need to expand the parentheses and reduce similar terms.

For example: $(2x^2 - 3x + 2) - (3x^2 - 2x - 1) - (-x^2 + 2x + 1) + (-2x^2 + x - 1) = 2x^2 - 3x + 2 - 3x^2 + 2x + 1 + x^2 - 2x - 1 - 2x^2 + x - 1 = -2x^2 - 2x + 1.$

If you multiply a monomial by a polynomial, you need to multiply the last term of the polynomial by the first monomial and win the monomial.

For example: $3a(a^2 - 2a + ab) = 3a^3 - 6a^2 + 3a^2b.$

If you multiply a polynomial by a polynomial, you need to multiply the outer member of one polynomial by the outer member of another polynomial and win the monomial dodavannya.

For example: $(3x - 2)(2x - 3) = 3x * 2x - 3x * 3 - 2 * 2x + 2 * 3 = 6x^2 - 9x - 4x + 6 = 6x^2 - 13x + 6.$

To divide a polynomial into a monomial, you need to divide each term of the polynomial by this monomial and add the results obtained.

Example: $(5h^7 - 2h^5 + 3h^2 + 6h) : 2H = 5h^7 : 2H - 2h^5 : 2H + 3h^2 : 2H + 6H : 2H = 2,5h^6 - H^4 + 1.5 h + 3.$

For example: $(5x^7 - 2x^5 + 3x^2 + 6x) : 2x = 5x^7 : 2x - 2x^5 : 2x + 3x^2 : 2x + 6x : 2x = 2.5x^6 - X^4 + 1.5 x + 3.$

Factorization of a polynomial is the writing of a polynomial as a product of polynomials.

For example: $2AX + 6au = 2A(X + 3Y).$

When factorizing a polynomial, use the following methods.

1. putting the total multiplier out of brackets.

For example: $5x^2 + 10x = 5x(x + 2).$

2. grouping method.

For example: $3x - 3U - X^2 + XY = (3x - 3U) - (X^2 - XY) = 3(x - y) - x(x - y) = (x - Y)(3 - x).$

3. using abbreviated multiplication formulas.

Abbreviated multiplication formulas

The square of the sum of two expressions is equal to the square of the first expression plus the doubled product of the first and second expressions plus the square of the second expression

$$(a + b)^2 = A^2 + 2 ab + b^2.$$

For example: $(3A + 2b)^2 = 9a^2 + 12AB + 4B^2.$

The square of the difference between two expressions is equal to the square of the first expression minus twice the product of the first and second expressions plus the square of the second expression

$$(a - b)^2 = A^2 - 2ab + b^2.$$

For example: $(3A - 2)^2 = 9a^2 - 12A + 4.$

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THE IMPORTANCE OF SPEECH THERAPY AS A SPECIAL PEDAGOGY TODAY

Speech therapists are almost everywhere today. Now they work in kindergartens, schools, rehabilitation centers, etc. But do people think about the importance of this profession? Perhaps everyone in childhood at least once turned to a speech therapist. And this is not surprising. After all, speech therapy is a discipline that covers the study, prevention, diagnosis, monitoring and treatment of speech and communication disorders. Mastering the native language, the native word begins in early childhood in the family, among relatives and friends of the child, and its improvement continues in preschool, school age and throughout life. From the first years of life, language is a means of cognition of the world around us. It helps to adapt in society, to become its full member. With the help of language people communicate, exchange information, share their thoughts, feelings, experiences with others. We get so used to constant verbal communication that we almost cease to notice it and understand its true value. It seems to us that at any moment to ask someone a question or answer a question, tell something, etc. - is a common thing. This is true, but only as long as the person has a sufficient level of language proficiency. When we meet people with severe speech disorders (not to mention its complete absence), the complexity of their life and communication becomes immediately obvious. Many of them cannot choose a profession to their liking, cannot properly arrange their personal life, for many it is extremely problematic just to go to the store or talk on the phone, it is difficult or impossible even to ask a passerby how to find the right street or house number. Preschool and school children with speech disorders have difficulties in socialization, they lag behind their peers in

learning or even in development. They can even become targets of bullying for others.

Therefore, early diagnosis and correction of speech problems is very important. After all, in adulthood their correction will cause difficulties. That is why at the first manifestations of speech disorders in a child, you should consult a speech therapist.

It should be noted that a speech therapist is engaged not only in the correction of speech disorders, it is primarily a teacher. That is, one of the main tasks of this profession is to educate and train children with speech problems. Also, a speech therapist has good psychological skills in order to find an approach to each client. Therefore, the role of the speech therapist in the development of the child is huge. And we should not forget about this profession and its importance in human life.

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HOW TO RESIST BULLYING?

Most of us experience bullying at some point in our lives, such as bullying at school or bullying at work. And while many people think that bullying only happens in childhood, unfortunately it doesn't always stop when you become an adult. It could be an intimidating boss or colleague, a controlling boyfriend, a nagging neighbor, a family member, or another person who engages in an abusive relationship with you.

What is bullying?

Bullying is unwanted aggressive behavior, most often of school-aged children, which is associated with a real or perceived power imbalance. This behavior is

repeated or may be repeated over time. As a result, the consequences of bullying can have a serious impact on both the bully and the victim.

There are four main types of bullying. Verbal bullying, social bullying, physical bullying, cyberbullying.

How to resist bullying?

1. Don't react. It may seem to you that if you respond to the words of the offender, it will help. But in fact, it will only inflame and let the offender know that his words hurt you.

2. Identify offenders and avoid them. Abusers are usually very popular and overconfident, and may physically or verbally try to harm another person. Knowing that you are in the presence of the abuser, you will be able to avoid his surroundings.

3. Don't be alone. Single people can be the most vulnerable to bullying. Therefore, try to be with friends, classmates, peers during the day.

4. Protect yourself from cyberbullying. Think about what you write and post online and who sees it. Keep your password secret from others. Even friends can give away your password or use it to hack and get your personal information.

Take care of yourself and help others, don't leave them alone with this problem

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ETHNOCULTURALISM AS A BASIS FOR THE FORMATION OF A PERSONALITY’S MULTICULTURAL COMPETENCY

The Statement of the Problem in a General Form and Its Connection with Important Scientific and Practical Tasks. Modern education aims to raise the spirituality of a person, to form him (her) as a personality in the structure of any culture, because it is culture that is the concentration of everything spiritual, moral, and ethical in the development of a personality. And an essential feature of any culture is its national component, ethnic features, the idea of nationhood, knowledge of one's native language, history, folklore and ethnography.

A feature of ethnocultural education is the multifacetedness of its content, which makes it possible to investigate problems of an ethnocultural nature when studying humanitarian disciplines [1, p. 79].

Ethnocultural education of youth is an urgent problem of modern pedagogical theory and practice in the conditions of the new educational situation which is characterized by the strengthening of ethnicization of the content of education, the growing role of the ethnocultural factor in education and the ideas of folk pedagogy in the pedagogical process.

Ethnocultural knowledge, skills and abilities that young people acquire through education are undeniably important. But along with this, the concept of

students' possession of competencies determined by a lot of factors becomes important. And it is precisely this that allows us to determine the readiness of a young person to actively participate in social life and in his(her) cultural development process.

Analysis of the main studies and publications on the specified problem.

The problem of ethnocultural competence and the introduction of this component into the educational process is highlighted in the studies of such scientists as N. V. Lysenko, M. G. Stelmakhovich, E. I. Syavavko, N. V. Yaksa and others. In our opinion this component of education and upbringing of young people is quite well implemented into the educational process.

It should be noted that the issue of multicultural competency is quite actual nowadays and is in the center of attention of scientists, especially in recent decades.

Thus, in particular, domestic Ukrainian researchers R. Agadullin, P. Vasyanovych, L. Vorotniak, L. Golik, V. Kuzmenko, K. Yuryeva, and others made their contribution to the research of this category. Multicultural competence is also the subject of research by such western scientists as D. Banks, A. Furnham, P. Frere, and others.

Dissertation works of L. Goncharenko, L. Vorotniak, L. Peretyaga and other researchers are also devoted to the topic of multicultural competence. Scientific investigations of multicultural competence as a component of the professional competence of a future teacher, which is considered as theoretical and practical readiness to perform professional functions in the conditions of a multicultural society, were carried out by S. Avhutska.

However, the issue of introducing a multicultural component into the pedagogical process of educational institutions of various types, in particular colleges, is not sufficiently resolved and, accordingly, requires a thorough development of methods for the formation of multicultural competence of an individual.

The purpose of our article is to define the scientific and methodological concepts of ethnocultural competence as a basis for the formation of multicultural competence of an individual.

The presentation of the main material with justification of the obtained scientific results. Yu. Kosenko considers the process of formation of ethnocultural competence as a personality's acquisition of objective knowledge and ideas about his ethnic culture, the history of his native land, spiritual and moral values and features of his (her) nation [2, p. 44].

Formed ethnocultural competence is the basis for the formation of multicultural competence, which is defined by L. Vorotniak as the ability of a person to integrate into another culture while maintaining the relationship with his (her) native language, a culture that is based on a combination of personal qualities, synthesized knowledge, abilities and skills of positive interethnic interaction, which, as a result, contributes to the conflict-free identification of the individual in a multicultural society and its integration into the multicultural world space [8, p. 13].

It also aims to arm the individual with the necessary skills and abilities of verbal and non-verbal behavior, which is characteristic of a representative of a certain ethnic group with its distinctive culture. Multicultural competence has a complex structure, and therefore the process of its formation is complex and long-term. The distinctive culture, original customs and traditions of each ethnic group are reflected in the mentality, character and other psychological features of its representatives and are reflected in its language.

Multiculturalism as a phenomenon is based on ethnoculturalism as a phenomenon of the ethnic existence of peoples, which occupies a decisive place in the system of their mutual relations, because it concentrates in its activity a diverse spectrum of the manifestation of ethnic characteristics. After all, it is known that each culture has its own work of ethnoculture, its own idea about it [4, p. 76].

The core of multicultural competence is the knowledge base, which contains: awareness of the need to study the problems of multiculturalism; knowledge that will help to understand the experience and cultural characteristics of ethnic groups

inhabiting a certain territory; knowledge that will help to form a flexible approach to the perception of national and cultural norms, awareness of the inadmissibility of racism and discrimination [3, p. 49].

Ethnocultural competence, as noted by M.O. Shulga, enables its representative to navigate the world, to build his (her) behavior in accordance with his (her) culture and at the same time to feel its limits, the end and the beginning of the world of another culture [5, p. 45], because realizing himself (herself) as its exponent and a representative of his (her) ethnic group and identifying himself (herself) with them, he (she) understands that he (she) has to communicate with other ethnic groups in accordance with the laws and rules, customs and traditions that are characteristic of representatives of another ethnic group. Thus, a representative of, for example, the Ukrainian ethnic group, should first form his (her) own national cultural identity, and by getting to know, say, the culture of, for example, Slovenes or Scots, he (she) should form the appropriate competency that is, he (she) must arm himself with the necessary knowledge and acquire the appropriate skills and abilities) to understand the behavior of representatives of these ethnic groups and observe their behavioral rules or behavior patterns when communicating with them and especially when directly visiting their countries of residence. This is how multicultural competence is formed It enriches a person with new knowledge and relevant abilities and skills related to the ethnocultural identity of other national groups.

In our opinion, ethnocultural competence includes such components that integrate with each other and form it. First of all, the first group of factors is related to the sphere of spiritual activity of the people (language, oral folk creativity, folk art, etc.), the second group of factors forms the material sphere of culture (folk architecture, clothing, types of creative activity), the third group of factors is related with the most complex and ultimately undefined phenomenon (the mentality of the people or the ethnopsychological features of the ethnic group).

It should be noted that the unique culture of each ethnic group is reflected in its mentality, character and other psychological features and affects its language.

Ethnoculture itself performs the following functions: communicative, cognitive, iconic and symbolic, reproductive (ensuring the physical existence of the ethnic group through the relationship between nature and a human being) and others.

It does not exist without people, but in people, in their ability to understand and perceive the surrounding society.

Stabilizing ethnicity and culture is a system of traditions, customs, rites, a kind of collective memory that accumulates ethnocultural information between generations [2, p. 9]. It is no coincidence that Y.G. Herder tried to reveal the connection between traditional cultural heritage and the conditions of human existence, which are embodied in language, customs, art, etc. At the same time, tradition regulates not only the level of information necessary for the reproduction of ethnicity, but also the degree of ethnic borrowing. This mechanism cannot allow foreign components to predominate in the structure of the ethnos, and from borrowed ones, which are not perceived as their own, national ones [4, p.102].

National culture is a national world where ethnocultural competency functions as a core, a real mechanism that preserves ethnic characteristics, even under adverse ethnocultural conditions. Ethnoculture occupies the main place in the culture itself, because it preserves in its memory ethnic signs of behavior, so to say, its patterns, samples, produced by the centuries-old experience of the people and established in its culture [4, p. 14].

National culture integrates the heritage of world culture, learns its values and enriches world culture in general, and ethnoculture plays an especially important role in this process - it is an inexhaustible source of the national treasury of ethnos. Ethnoculture as a field of certain humanitarian knowledge focuses, first of all, on the ethnic features of the traditional cultural and everyday sphere. It is directly related to folk poetic creativity, because it is folklore that reproduces a stable tradition, a sphere of continuous and unlimited changes established in their culture [4, p.14].

National culture is a deep awareness of belonging to a certain state, a sense of civic dignity, responsibility, duty, the ability to resolutely defend social and state goals in certain social situations. The introduction of a new generation into the

system of values of civil society presupposes the formation of civil (national) culture in it. The inclusion of the components of civil culture in the subjects of the humanitarian cycle makes it possible to synthesize the regularities of many sciences into a single worldview system.

The technology of forming the ethnocultural competence of an individual is a certain pedagogical system of a set of interconnected and mutually conditioned integral components that form a single whole in their structure, united by a common goal, motives and tasks aimed at the gradual formation of personal, epistemological, operational, projective components of ethnocultural competence in young people.

The most important indicator of the level of formation of the personality itself is its ethnocultural upbringing, a high level of ethnocultural competence. The central place in the formation of ethnocultural competence is occupied by subjects of the humanitarian cycle. Even during the years of study at the university, the future teacher should be directed to introduce into the content component of the educational process exactly those methods, means, and forms of education that will contribute to the in-depth study of culture, language and history.

At language lessons, it is appropriate to use various types of texts, in particular, the works of writers, scientists and figures of native culture; texts depicting modern reality, cultural, historical and economic connections; enrich the vocabulary of young people with ethnocultural terms (Motherland, country, ethnos, nation, national culture, folk art, folklore, etc.); use dictionary dictations, exercises, works, sentences with ethnocultural themes. At the lessons of literature, it is desirable to enrich young people with knowledge about the work of famous figures of their nation, who reveal the national colour, way of life, traditions and customs in their works. At geography lessons, young people should get to know the geographical borders of the country, its natural conditions and features. The history of native people also provides knowledge about traditional crafts in the past, the development of statehood, as well as the formation of a nation as a separate independent country. In the formation of multicultural competence students are offered authentic texts for study.

Ethnocultural education ensures the assimilation of examples and values of national culture, cultural-historical, social experience of one's country, formation of a sense of belonging and respect for one's native land. The inner world of the individual is the driving force of the development of a person's spirituality, the determining factor of actions and behavior, value orientations, life and social position. This is facilitated, first of all, by ethnopedagogical factors, with the help of which the goals and objectives of ethnocultural education are realized. Namely: native language, family culture, folklore, emotional culture, national psychology, national character, folk beliefs, folk games, knowledge of genealogy and history, pedagogy of the folk calendar, national symbolism and folk symbols, foundations of folk morality, national self awareness, folk didactic knowledge, folk games and folk toys, folk customs, holidays, traditions and rites.

Language teaches a person to think, to join the spiritual heritage of his people and other peoples. Studying native history makes it possible to learn about the origins of the spirituality of each nation as a source of memory, historical thinking, and the formation of the consciousness of different generations. Native language is an original way of thinking, an original means of knowing reality, it is the soul of every people.

The revival of family folk traditions, customs, respectful attitude to family culture will contribute to the formation of the deepest feelings in young people: love for mother and father, grandmother and grandfather.

Learning your native history makes it possible to learn about the origins of everyone's spirituality, to understand and know your own lineage. Knowing the wealth of folklore, young people generously draw emotional, moral, aesthetic and patriotic values. The higher the national self-awareness of a young person is, the more deeply he loves his people. Therefore, it is the ethnocultural competence of the individual that ensures the eternal life of the nation and the people.

Scientists have different approaches to defining the age period most sensitive to the establishment of the foundations of ethnocultural competence. Scientist-pedagogue Umberto Eco claimed that it is necessary to teach a 3-4-year-old child

love for his native language, respect for his native people [2, p.13]. From love and respect for one's language and people grows love and respect for others.

N. V. Lysenko singles out three stages that an individual goes through during the formation of ethnocultural competence, which can be conditionally correlated with degrees of education.

The first stage (5-10 years old) is the achievement of elementary literacy in the field of one's own ethnic culture, as well as other ethnic cultures living nearby. At this stage, the child must clearly identify himself (herself) with his ethnic group, putting forward such grounds for identification as the nationality of his parents, place of residence, native language; have an idea of the history, way of life, traditions, customs, folklore of their people;

II stage (11-15 years old) – achievement of functional literacy in the field of one's native culture and ethnic cultures of one's country, as well as elementary literacy in the field of ethnocultures of neighboring countries.

At this stage, ethnic identity must be fully formed, that is, there must be awareness of the peculiarities of different ethnic groups, the ability to determine the uniqueness of native history, the specifics of traditional household culture; distinguish the peculiarities of verbal and non-verbal communication; to show in his behavior the ethnic features characteristic of his (her) people (for example, he speaks his native language fluently, performs folk dances, has a folk artistic craft, etc.);

III stage (15-18 years old) – achieving education in the field of ethnoculture of one's country and mastering elementary literacy in the field of ethnocultures of various peoples of the world. At this stage, a person should not only know the traditions and rituals of his native people, but also use them in everyday life; to know information about prominent figures of various nations and their own family; implement ethnocultural knowledge, skills, behavioral models that contribute to effective interethnic interaction; know examples of interpenetration of cultures, positive aspects of multiculturalism; to contribute to the development of mutual understanding between representatives of different peoples and cultures [6].

We are sure that it is precisely these stages that a person goes through in the process of forming ethnocultural competence. But, having passed the mentioned stages, it is impossible to say that his (her) ethnocultural competence will be fully formed. This is due to the fact that culture is a multifaceted, dynamic phenomenon that is constantly developing and modifying, therefore it is completely impossible to know it; secondly, the ethno-cultural environment can constantly change, which requires constant knowledge [6, p.186].

Therefore, the formation of ethnocultural competence occurs throughout a person's life. All the most famous teachers of the world recognized that the education of the younger generation should always be based on the cultural and historical values of their nation, and only later does it become familiar with the traditions of other nations.

Analyzing the works of the great pedagogue K. D. Ushinsky, O. M. Tkachenko draws attention to the article "Native Language", where he wrote: "Language is the best world of his (her) entire spiritual life, which begins far beyond the boundaries of history... In a language, the whole nation and all its homeland..." [7, p. 23]. The study of oral folk art creates the ground for education, upbringing and development of an intelligent, hardworking, honest, humane person. It is folk pedagogy that is inextricably linked with the history of the people, all its ups and downs, in it, as in a mirror, the greatness of the people's exploits and the tragedy of defeats in the struggle for statehood, deep spirituality and high morality are reflected [7].

We do not have a very high rate of ethnocultural education of the youth today, and this is caused by a number of reasons. Motivational reasons are related to teachers' underestimation of the educational role of humanitarian subjects and also lack of proper methodical support for them.

Informational reasons include the lack of emphasis on the ethnocultural component in the content of most educational programs and textbooks on subjects of the humanitarian cycle, insufficient information provision. Among the organizational reasons, the most significant are the mismatch between the activity

structure of the educational process and the interests of young people: the palette of choosing certain types of youth activities is often limited.

Conclusions. Therefore, by introducing into the process of teaching the subjects of the humanitarian cycle basics on culture, ethnography, ethnology, the history of the native land, the foundations of the formation of the state system, the formation of national consciousness, the idea of spirituality and morality it is possible to ensure an increase in the level of knowledge of the youth about ethnoculture and to speak about the formation of ethnocultural and later multicultural competency of young people.

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METHODS OF GROWING SINGLE CRYSTALS

Materials in the form of thin layers and single crystals play a huge role in modern technology. Single crystals and solid solutions are quite actively used for the manufacture of electronics working parts. Single crystals can be obtained during crystallization from gas, liquid and solid phases.

The Czochralskyi method is mainly used to obtain single crystals, the composition of which is identical to the original melt. In this method, the initial crystal is in contact with the surface of the melt, the temperature of which slightly exceeds the melting temperature. During the gradual upward movement of the initial crystal, crystallization occurs on its surface, resulting in elongated crystals with the same crystallographic orientation as the initial crystal. When drawing crystal, the melt and the crystal are rotated in opposite directions, which makes it possible to reduce temperature and concentration inhomogeneities during crystallization and thus improve the quality of the obtained single crystal. The Czochralsky method is widely used to obtain single crystals of semiconductor materials, such as Si, Ge,

GaAs, etc. To prevent losses due to evaporation when working with As, P and other volatile elements, the process is usually carried out at a high pressure of inert gas .

Bridgman and Stockbarger methods are also based on the crystallization of the melt, the stoichiometry of which exactly corresponds to the stoichiometry of the future crystal. In the Bridgman and Stockbarger methods, crystallization is carried out in the coldest part of the melt, which is located in the zone with a temperature gradient. In Stockbarger's method, this is achieved by relative movement of the melt and the gradient zone, and in Bridgman's method, by gradually cooling the furnace with a temperature gradient in which the melt is stationary. When implementing these methods, it is also recommended to use initial - seed crystals and control the composition of the gas atmosphere.

According to the method of zone melting, only a small part of the substance from which the single crystal should grow is in a molten state at each moment of time. First, the part of the substance that is in contact with the seed crystal is melted, and when the shuttle is pulled through the furnace and the rest of the substance is successively melted, directional crystallization occurs. Zone cleaning is also based on this principle - a widely known method of cleaning solid bodies. Using the fact that impurities are concentrated mainly in the melt, and not in the solid, they are "expelled" from the crystal, gradually moving the melt zone. The method of zone melting is used for the purification and growth of single crystals of even such refractory metals as tungsten.

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USE FOR ARDUINO IN HANDMADE ELECTRONICS AND TRASH ELECTRONICS RECYCLING

Arduino is a microcontroller board that is usually used by amateur electronics creators and engineers worldwide. It is an open-source platform that allows quick and easy electronics development. It is cheap enough as is and its simplicity allowed other companies to copy the design and create their own compatible boards for a fraction of the original price which makes the device even more affordable and popular. There are a lot of board types, made for different needs: from simple device controls and relays to devices with complex calculation capabilities. From simple on-off switches to smart home systems: Arduino is extremely versatile and easy to pick up. Today one can find countless guides on device creation. It's design allows for third party electronic elements use and that allows the creator to recycle electronic parts that usually would go to waste. It makes the projects cheaper and helps the environment. Arduino is programmable through Arduino IDE – a standalone app for code creation, compilation and upload onto the boards. It doesn't require a new programming language to be learnt as the code is pretty close to C or C++ language. App is completely free and doesn't only support official Arduino boards but a lot of clones and other microcontrollers and boards. Arduino development also offers an opportunity for children and teenagers to learn and practice in programming and engineering as they are completely safe with adult supervision, fail-proof and the current the boards use is in the safe range for children. Overall Arduino Development Board is a great tool for students, creators and hobbyists. It helps environment and schools and is fun to tinker with.

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BRANDING AS A DIRECTION OF ENTERPRISE MARKETING ACTIVITY IN MODERN MARKET CONDITIONS

There are a large number of brands with brand elements on the market, but very few of them are actually brands in the full sense of the word. The very word "brand" has become a kind of modern term that is used everywhere and is gradually losing its original meaning. Moreover, this situation is indicative not only for the market of alcohol products, but also for other highly competitive domestic markets, including, for example, food markets [1]. Many market players only declare that they have brands, using the word "brand" as an advertising or image move. Regardless of the actual situation, manufacturers when communicating with consumers and the media, refer to all their registered trademarks as brands.

Among the following scientists who deal with branding issues are D. Aaker, T. Ambler, K. Verkman, E. Golovleva, V. Domnin, S. Davis, Y. Elwood, O. Zozulyov, L. Moroz, O. Moroz, P Temporal, G., Chamerson, M. Yanenko, F. Kotler, K. L. Koehler, S. Ilyashenko. They highlight the issue of creating brands, the basis of their positioning, requirements for brands, the concept of brand capital, brand management strategies etc.

Evidently, branding policy is very important in today's market conditions. You need to have a good understanding of the concepts of creating a company brand. This is the key to the success of the entire company [2]. If we talk about American marketers, they distinguish the following types of brand [3;4;5]:

1) brand with extension (when a well-known company with a strong brand releases new products under an existing brand, its goal is to expand the assortment

and increase market share by attracting new customers. The policy is called "creating a brand with subsequent expansion" [3]. An example of such a strategy is the Samsonite brand, which has gained a strong position in the market by selling travel bags and suitcases.);

2) umbrella brand (this type of brand is quite widespread, its meaning lies in the production of different goods under the same name);

3) line brand (this method allows you to strengthen the image of the brand without spending practically any effort: the sales volume increases and consumer needs are satisfied);

4) brand for each product name (the weakness of the brand lies in its personal quality and it applies to each unit of goods. If it does not pay off, the company will suffer considerable losses. It is possible to divide the brand into categories, types and types of family branding, i.e. into main, introductory, secondary, linear brands)[4;5].

All things considered, it seems reasonable to assume that branding helps company form a positive image around the company's goods or services, show the high value of products, create communication between the company and customers, develop the concept of brand positioning in the market.

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MATHEMATICAL ANALYSIS

Mathematical analysis is a branch of mathematics. The focus is on the study of real and complex numbers as well as their representation; even using letters.

Mathematical analysis specifically deals with topics such as derivatives, integrals, limits, series, and various types of complex functions.

The goal of mathematical analysis is to solve complex calculations through abstraction. To do this, it uses tools such as functions.

History of mathematical analysis

The history of mathematical analysis dates back to classical Greece. The mathematicians Eudoxus of Knidos and Archimedes used, although without developing them formally, concepts such as limit and convergence. This, to calculate the area and volume of geometric figures.

Later, in the 12th century, the Hindu mathematician Baskara developed elements of differential calculus. Then in the 14th century, another Hindu mathematician named Madhava devoted himself to the study of different types of mathematical series such as infinite series, power series and Taylor series.

Eventually, in the seventeenth century, what some consider to be the true origin of mathematical analysis took place. All this, after the emergence of events

such as Isaac Newton, Gottfried Wilhelm Leibniz and Pierre de Fermat in the field of calculus.

Thus, in the 18th century, the advances continued with other topics such as differential equations, highlighting already in the 19th century figures in the field such as the mathematician Augustin Louis Cauchy, Simeon Denis Poisson, Jean-Baptiste Joseph Fourier, Bernard Riemann, Carl Weierstrass, Richard Dedekind, Camille Jordan and René-Louis Baird.

In the 20th century, Henri-Léon Lebech, David Hilbert and Stéphane Banach stand out as this base. These last two were devoted to the study of vector spaces.

Areas of mathematical analysis

Mathematical analysis covers the following areas:

- Real analysis: This is the study of derivatives and integrals, as well as limits and series. It includes differential equations, differential geometry, probability theory (the branch of mathematics that studies random events), and numerical analysis (the branch of mathematics that studies methods of obtaining an approximate solution to a problem).

- Unreal analysis: This is the analysis of solids that are not real numbers. For example, complex numbers. In other words, those that can be represented as the union of a real number and an imaginary number.

- Functional analysis: It is the branch of mathematics that studies the space of functions. It is the set of functions from set A to set B.

- Topology: It is the branch of mathematics that studies the properties of geometric shapes or bodies whose properties do not change when they are compressed, expanded or deformed.

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A FOOTBALL COACH AS LIFELONG JOB

Everyone knows how much the boys loved the game of football. Children and adults are ready to play ball around the clock. A sociable, gambling, fun and at the same time game that develops strategic thinking has always attracted male representatives. Therefore, it is not surprising that today there are many amateur teams at the regional and regional levels.

At the same time, it is worth remembering that, in any case, the team's coach is largely responsible for the coherence of the team's play. He acts as a coordinator, assistant and friend for each player. The coach is responsible for all victories and defeats of the team. That is why it is so important to understand what a football coach should be and what burden of responsibility he bears.

Despite the fact that the profession of a football coach is not currently on the top lists of the most sought-after and popular, it is rightfully considered extremely responsible and difficult.

The way to success or where to start Naturally, the beginning of such a career should be a great desire and boundless love for football. However, without specialized education, it will be quite difficult, if not impossible, to achieve significant success. Therefore, for a more successful start, you can start playing for the school team or try yourself as a coach of your backyard boys' team. Having come to the understanding that this profession can become the further meaning of life, it is worth following the following steps:

1. Category "D" license (must be entered in Ukraine). It will allow you to work as a coach in mass football. It is noteworthy that this category does not imply that the athlete has a mandatory higher education.

2. Bachelor's degree in "football coach" specialty.

3. Licenses of categories "C", "B", "A", as well as "Pro" will allow to work in organized football, starting with children's and ending with professional, including national national teams of various levels (availability of a diploma of graduation from a specialized higher educational institution - mandatory).

And, of course, do not forget - the coach must be in constant search. To read and be interested in modern methodological approaches and trends in the development of football in the direction of improving one's own coaching skills.

Despite the fact that it is not easy to become a coach, it is to a greater extent a person's VOCATION.

A real football coach is a person who should not only be an experienced mentor, but also remain a sensitive and loyal friend, comrade, and sometimes even a father.

At the same time, he must have the following qualities:

- ability to hear, listen, understand and draw conclusions; - stress resistance; - sense of loyalty and tolerance; - justice and patience; - sense of tact; - skills of a manager, teacher, psychologist and mentor.

Choosing the profession of a football team coach, a person must be aware of the fact that in this way he is creating a real family for which he will be fully responsible in the future, and which will fully rely on his skill. And even if there is no unequivocal answer to the question of what a football coach should be, there is only one clear understanding that he should be a responsible person who is fully devoted to this work. Because a football coach is more than just a profession. A football coach is a lifelong job.

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FEATURES OF SPEECH PEDIC WORK WITH WEAK CHILDREN IN THE CONDITIONS OF INCLUSIVE EDUCATION

Timely mastery of the language is the basis of a child's mental development, the key to full-fledged communication with the surrounding people. Various deviations in speech development, especially in children with reduced hearing, have a negative impact on the perception of speech, the expression of one's own thoughts, the acquisition of knowledge and the formation of the child's personality.

Speech disorders, if they are not corrected in a timely manner, can be the cause of the child's failure to master the knowledge of the general school curriculum. That is why the correction of a speech disorder can be considered a particularly significant problem.

It is known that in the process of expressive speech and, accordingly, when pronouncing sounds, kinesthetic sensations arise from the movements of the organs of the articulatory apparatus. Impulses from these kinesthetic stimuli go to the cerebral cortex. It is kinesthetic stimuli that play the main role in the formation of phonemic perception. With defective sound pronunciation, the full development of phonemic perception does not take place. Violation of phonemic perception leads to the fact that the child does not hear speech sounds that are close in sound or similar in articulation. As a result, her dictionary is not replenished with new words if they have hard-to-distinguish sounds. The child's vocabulary is significantly behind the age norm. For the same reason, the grammatical structure is not formed to the required extent.

So, the peculiarities of children of this group are deviations in the neuropsychological sphere, cognitive activity, children's behavior, development of general, fine and articulatory motor skills, development of vocabulary, formation of

grammatical structure, sound-syllabic structure at the same time as a gross violation of phonetic speech, with underdevelopment of phonemic of hearing

The work of a speech therapist is based on the following principles:

1. Personal orientation – orientation towards the child, his psycho-emotional features.
2. Emotional support - creation of an emotionally comfortable atmosphere in classes – creation of a "situation of success".
3. Interaction with parents, deaf teacher and teachers.
4. Game context of classes – formation of positive motivation for learning.

Education and upbringing of a child with hearing impairments should be combined with rehabilitation, corrective classes of a deaf teacher on the development of hearing and speech, if necessary - with treatment, classes with a psychologist.

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PROMOTION "VISLA" 1947 YEAR

The military operation of the Polish state, which consisted in the forced eviction of Ukrainians from the historically Ukrainian lands of Lemkivshchyna, Nadsiania, Kholmshchyna, and Pidłaścia, which after the Second World War ended up within the borders of the Polish state under the terms of the Potsdam Conference. Even during the war, on September 9, 1944, an agreement was concluded between the Polish Committee of National Liberation and the government of the Ukrainian

SSR on the mutual resettlement of the Ukrainian population from the territory of Poland to the Ukrainian SSR, and the Polish population from the Ukrainian SSR to Poland. A total of 122,454 families (482,109 people) were evacuated from Poland to Ukraine in 1944-47, although about 200,000 Ukrainians remained on the territory of Poland. 810,415 people left Ukraine for Poland. The term of population exchange between Poland and Ukraine ended in July 1946, according to the concluded agreement. Tens of thousands of Ukrainians in Poland did not want to leave their land and go to collective farm work in the USSR. Then the Polish government began to prepare their forced deportation, but not to the USSR, but to the sparsely populated northwestern territories of Poland returned as a result of the Second World War. On April 28, 1947, the action under the code name "Visula" began, which lasted until the end of July. The purpose of the "Visula" action was to clear the southeastern territories of Poland from the remnants of the autochthonous Ukain population, disperse it in the northwestern lands and complete assimilation (Polonization). The forces of five infantry divisions of the Polish Army, a regiment of sappers, an automobile regiment, a militia regiment, an aircraft squadron, and a division of the Public Security Corps were involved in it - a total of about 20,000 soldiers. UPA forces in Zakerzonna numbered 1,390 people at that time. The "Visula" action was carried out in the following way: at dawn, the military unit surrounded the village, not letting anyone out. Residents were ordered to pack their movable property within two hours, after which they were escorted to the assembly point, which was mostly an open area surrounded by an iron grid for several thousand people who crowded there with their property and livestock. At the collection point, lists of deportees were drawn up with the participation of security service personnel. Such groups of people were transported from assembly points to the railway station for loading into freight cars. The echelons arrived in the northwestern territories of Poland, where the deportees were divided into counties, and then transported to the villages. In general, Ukrainians could not make up more than 10% of the entire population of this area, which is far from large cities and state borders. The implementation of the "Visula" action was accompanied by attacks and

violence against Ukrainians: Ukrainian homes and buildings were deliberately burned, ancient churches were destroyed, representatives of the Ukrainian intelligentsia and the peasantry were imprisoned in the Yavozhno concentration camp on suspicion of aiding the UPA. During the operation, the Polish authorities destroyed the anti-communist underground (units of the Ukrainian Insurgent Army and the Home Army) and got rid of Ukrainians in the southeastern provinces of Poland. About 150,000 Ukrainians were dispersed in small groups throughout the territory of northern and western Poland. Resettlement left a deep and lasting sense of wrong and personal tragedy in the minds of many resettlers and their descendants. In places of new settlement, Ukrainians received almost destroyed farms.

Deportees were forbidden to change their place of residence without the consent of the District Security Government, and no such consent was given to anyone. In the new places of settlement, Ukrainians were deprived of their church, school and opportunities to develop their own social and cultural life. The Polish authorities persecuted even the smallest manifestations of domestic cultivation of Ukrainian national and cultural traditions. In order to prevent Ukrainians from illegally returning to their native lands, by a decree of the Polish authorities in 1949, they were deprived of the right to abandoned farms, even when the farms were not occupied by new owners and they became state property. Later, they received some material and financial assistance from the state, but it took years to get out of the poverty they fell into as a result of deportation.

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THE FEDERATION OF BRITISH AGRICULTURE

Great Britain belongs to the highly developed countries of the world. In terms of GNP, it ranks seventh in the world. Private capital plays a dominant role in the country's national economy. However, in some industries, especially in low-profit and unprofitable ones, the public sector is crucial. First of all, it concerns the coal, shipbuilding, aviation, military industries, and partly transport engineering. A major role in the economy of Great Britain is played by American monopolies, which occupy a dominant position in certain industries. On the other hand, the state plays an important role in the international economy, currency and financial operations.

Great Britain had in the first half of the 20th century. huge colonial possessions from which raw materials were intensively exported. After World War II, it gradually lost almost all its colonies.

The leading place in the sectoral structure of the economy of Great Britain is occupied by industry, which accounts for about 5% of the industrial production of highly developed countries. It is also characterized by intensive agriculture.

In the structure of industry, the leading branches are mechanical engineering, the chemical industry, and the electric power industry. It decreased noticeably in the

second half of the 20th century. share of the traditional industries of Great Britain — mining and textiles.

Most of the agricultural land in Great Britain is concentrated in farms with an area of more than 100 hectares. The country's agriculture is one of the most productive and well-equipped in the world. It provides 75% of the state's food needs. The main branch of agriculture is animal husbandry, which accounts for 70% of production.

Among grain crops in crop production, wheat, rye, and barley are the leading ones. Sugar beets play an important role among industrial crops. Great Britain is one of the ten largest producers of potatoes in the world.

Suburban farms specializing in the cultivation of vegetables, berries, fruits, flowers, and hops play a major role in the production of high-value crops. They are located on the southern coast of the island, in the river valleys.

High-performance animal husbandry is based on the cultivation of fodder crops, as well as natural meadows and pastures, which are used all year round. Cattle breeding, especially meat, pig breeding, sheep breeding (the largest number of sheep in Europe), poultry farming is developed in the state.

Certain regions of Great Britain have their own narrow specialization (breeding of young animals is typical for the slopes of mountains and highlands, the South West, etc. specialize in milk production).

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MODERN TRAINER AND SPORTSMAN

A current trainer is a person who kindly organizes the training of young athletes. This is a person who is fanatical in sports, who is smart to the point of daring jokes and innovation. In the process of vocational and educational-sports work, the coach of the victorist's work has made a difference.

Modern sports is a powerful industry that includes a special system of production of sports records. Along with athletes and coaches, managers, sports doctors, psychologists, and scientists are involved in it.

Effective activities of the coach in training athletes high class is determined by many factors, including timely presentation of various information. At the same time, the system information support of the trainer's activity is necessary information materials, determined by the structure and content of the system athlete training. The training of an athlete is a process of appropriate use of all set of factors (means, methods, conditions) that allow directed influence the athlete's development and ensure the necessary measure of it readiness for sports achievements. It includes sports training, sports competitions, additional factors of increasing the efficiency of activity.

To the factors that increase the effectiveness of the functioning of systems training and competitions, include: selection and personnel, informational, scientific and medical and biological support, material base, financing, conditions external environment, management and organizational structures [1].

Analysis of the literature allows us to assert that for each stagesports training, for example, boxers, is characterized by its content, volume andthe intensity of training loads, their dynamics, the ratio of general physical training and special physical exercises, accounting of individual characteristics of athletes, improvement

technical and tactical skills, psychological training. In this situation the trainer refers to various types and sources of information. He needs pedagogical, medical and biological, sports and other information contained in books and monographs, magazine articles, collections of scientific works and methodological developments and so on. The coach performs the controlling action, it is he makes decisions on the selection of means and methods of training. Success activity is determined by the level of his awareness of modern trends development of boxing, issues of sports training, development of models characteristics of all types.

Currently, several dozens of different fitness indicators have been identified boxers, which reflect the state of its individual elements or sides [2]. Therefore, the coach's task is reduced to choosing adequate indicators training of boxers in order to get an objective picture of the results the educational and training process, the state of the athlete, what he should do help various informational materials on these issues: books, scientific articles, methodological developments and so on.

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THE PERIODIZATION OF MODERN HISTORY

Professional historians are well aware of how difficult the issue of periodization of the historical process is. Therefore, before considering the problem of periodization of modern history, I would like to ask a somewhat provocative question: "Is periodization necessary in the teaching of history at all?" At one time, I specially studied the programs and textbooks on world history that are taught in schools, colleges, and universities in the USA, Canada, and Great Britain. I got the impression that the problems we are discussing today do not cause headaches for our foreign colleagues, that is, history teachers and authors of relevant textbooks and manuals, which I had the chance to familiarize myself with. And it is clear why, because the basis of teaching there is a completely different principle than ours, namely: world history is taught as the history of human civilization (or civilizations) or as the history of society (for example, the history of Western society).

At the same time, the authors of the mentioned textbooks operate with concepts similar to those that we also use: "antiquity", "Middle Ages", "Modern times", etc. But they are used, in my opinion, quite arbitrarily, not subject to a clear scheme, a certain periodization, a single methodology. The problem that is the subject of our consideration has two aspects: firstly, it is the chronological limits of this period of world history, and secondly, its internal periodization. As for the first aspect, the author has already expressed his thoughts on this matter. In the time that has passed, it would seem that with the definition of the initial boundary of the history of modern times, the picture has become clearer: its attribution to the end of the 15th - beginning of the 16th century is recognized by the overwhelming majority

of experts. And, finally, it was reflected in educational literature for higher education. As an example, we can point to an interesting in terms of content and structure and modern in terms of methodology study guide edited by Yu.A. Gorban [5]. True, the authors of this manual did not avoid some, as it seems to us, contradiction in their judgments. Yes, on the village 22 we read: "The turn of the XV-XVI centuries is the beginning of the transition from the Middle Ages to the New Age, from which, in fact, the history of the modern world begins. According to the classical scheme, the Middle Ages end in the middle of the XV century with the fall of the Eastern Roman Empire. The New Age begins with Great geographical discoveries, from the humanism of the Renaissance, from the religious Reformation".

There is no doubt that the New Age is the age that laid the foundations of the modern civilization in which we live today. But it is not entirely clear from the above passage - from the turn of the 15th - 16th centuries, the actual New Age begins or just a transition to it? Such ambiguity or vagueness of wording is due to the complexity of the problem itself, which forces us to return to the first aspect again. In modern historical science, there are different points of view regarding which of the centuries to consider as the upper limit of the Middle Ages and which criteria to choose for determining the deformation or final destruction of the feudal system, and therefore for establishing the starting point of the history of the New Age. The existence of such a disagreement among scientists is explained by the fact that the breakdown of the feudal system, the origin and evolution of which constituted the historical content of the Middle Ages, and, accordingly, the formation of the capitalist system took place unevenly. At the end of the 16th century, the latter became the leader in the economy of England and the Netherlands, played a prominent role in certain branches of production in France, Germany, and later in Sweden, while in Italy, where the elements of capitalist relations arose quite early, their stagnation and even regression took place as a result unfavorable economic and political conditions, and in Spain and Portugal the sprouts of the new system died due to short-sighted state policy. In the German

lands east of the Elbe, in the Baltic States, in Central and South-Eastern Europe, early capitalism did not develop at all, moreover, the involvement of these regions in market relations led to the opposite phenomenon - the re-feudalization of the economy and a return to heavy forms of personal dependence of the peasants (known to historians as the so-called "second edition of serfdom").

The presence of these and some other contradictory trends and phenomena (deformation and complication of the social structure of feudal society, the dual role of such a form of feudal state as an absolute monarchy, the preservation of old legal norms, institutions, and traditions) do not allow us to unambiguously attribute the specified period to the Middle Ages or the New Age. Hence the different approaches of historians: some of them are convinced that, despite the emergence of capitalist relations, feudal orders remained dominant throughout the 16th, 17th, and to a large extent the 18th centuries, others emphasize the emergence of capitalist tendencies, considering them to be the leading ones. Accordingly, the former call it the late Middle Ages, the latter the early New Age. We should also add that in foreign historical literature, the 17th century is often called the "age of crisis", meaning the steadily growing all-round breakdown of feudalism. However, a crisis or breakdown is not yet the actual end of the system as such. However, in recent years, the term "early New Age" has become increasingly widespread in historical, including educational, literature. In our opinion, the 16th - 18th centuries were a transitional period, when elements of both the old and the new ways of life coexisted, being at the same time in historical conflict. Therefore, it does not seem very appropriate to tie the end of the Middle Ages or the beginning of the New Age to any specific event or phenomenon, no matter how important they are in themselves. At one time, the historian from Saarwerden van Dulmen noted that the Reformation cannot be considered a boundary between the Middle Ages and the Modern Age, and, in his opinion, it is hardly possible to speak of such a boundary at all; in addition, it should not be seen as the main reason for the entry of Western Europe into the New Age, and the end of the Middle Ages was marked by a combination of very different - socio-economic and state-political - factors, one of

which was the Reformation. Incidentally, we note that there is no consensus among historians regarding the boundaries of the early modern period. Some believe that this period covers the 16th and 17th centuries, others - the 16th and 18th centuries. Thus, the modern British historian Richard McKenney, in the introduction to his book, refers to a number of works in which the 16th century is attributed to the early modern period, which may or may not include the 18th century, depending on how close their authors are to the concept of the "long " XVI century, which lasted from 1450 to 1620. If we talk about the history of the modern age itself, understanding by it first of all the establishment and victory of the industrial order as the dominant system in Europe, and later in the whole world, then it originates from the Great French Revolution of the end of the XVIII century, which most decisively undermined the main foundations of feudal society. This is, in fact, another, forgotten, but, as it seems to us, interesting and promising point of view regarding the beginning of the history of the New Age. By the way, it was from this significant event that the presentation of the material in one of the first Soviet textbooks on new history began (New History. / Open editor E. Tarle. Part 1. - M.: Sotsekgiz, 1939).

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STRUCTURAL COMPONENTS OF A SPORT COACH'S PROFESSIONAL

The problem of training qualified coaching personnel for all types of sports is considered a problem of national scale

In Ukraine, as well as outside its borders, its relevance is undeniable. The essence of the problem is that, on the one hand, the literature contains a significant amount of theoretical material about the components of the pedagogical mastery of a sports coach, and on the other hand, no clear list and ranking of such components has been found specifically for coaching professions

The relevance of the training of qualified coaching staff is determined by: firstly, the fact that the components of a coach's professional skill in a sport determine the effectiveness of the educational and training process of athletes; secondly, the use of information about the structure of professional skills allows to effectively improve the entire system of training of coaching personnel in general and its individual elements in particular; thirdly, the scientific substantiation of the components of the professional mastery of a sports coach creates opportunities for reforming the entire national system of training specialists in physical culture and sports.

The organizational skills of a coach at any level of sports training are absolutely necessary. The coach is the organizer of the sports training process and it is through the organization of the process that he can show his knowledge, experience, even intuition. Otherwise, as through the organization of the process, that is, otherwise than through specific actions and deeds, the coach will not be able to show his personal qualities, which, of course, contribute or do not contribute to the effectiveness of his work.

Positive qualities of a coach most often include:

- kindness and attention to students, sociability;
- justice, honesty;
- principledness, diligence, sacrifice;
- professional talent, broad outlook, etc.

General signs of a coach's professionalism are:

- possession of special knowledge about the purpose, content, object and means of activity;

- possession of special skills to carry out activities at all stages of an athlete's training;

- special properties of a person and character traits that allow to carry out activities and achieve a given result.

The effectiveness of the trainer's work depends on economic, social, organizational, scientific, situational and other factors.

It was found that the leading components of the structure of professional the skills of a sports coach are a complex of integral, general and professional competences namely: knowledge, ability, skills, communication, autonomy and responsibility.

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ISMA

MARKETING CAPABILITY

The content of the market mechanism in its pure form includes three important elements: free production (unregulated supply), free purchase (unregulated demand), free (unregulated) price that balances supply and demand. If at least one of these elements is missing, there is not and cannot be a complete market, the forces of self-adjustment and self-regulation do not work. Instead of the market mechanism, non-market mechanisms for regulating supply and demand, and accordingly, production and consumption, begin to operate. The market is a voluntary economic agreement, purchase and sale (or contract-order). Regulation means the imposition of one's will by one subject on another. As a result, economic

ties give way to non-economic ones. This is possible in the administrative-command system, but completely unacceptable in scientific economics; otherwise it is no longer a market, it is unable to perform its functions.

An intermediary is possible between the producer and the consumer in the market, but only if both are interested in it, when it is beneficial to them. Such an intermediary is not an element of pressure on the subjects of market relations, he is subordinate to them. In a market economy, it is possible to regulate only business, focusing it on achieving high efficiency and at the same time - on meeting the needs of customers. History shows that any attempt to push or limit the market leads to negative consequences. The market system of management has its own laws, principles, and qualitative characteristics. If we consider it in its pure form, then it is regulated by an objective, spontaneously acting market mechanism. In other words, it is self-regulating.

Recognizing the market as an objective regulator and stimulus for production, and the market economy as a self-regulating system, does not negate the need to use other regulators in it. The fact is that it is possible to adapt to the action of the objective laws of nature and society and act in accordance with them. People, knowing the laws and principles of commodity economy, taking them into account and relying on them, can and should competently use the market mechanism. In addition, the statement according to which the market economy is regulated exclusively by the market is incorrect. At the level of a firm, an enterprise in the market system of the economy, as already noted, conscious management is always carried out, production planning is used using command-administrative methods, and the larger the enterprise, the larger the volume and more complex production management.

Significant changes in Western countries have occurred in the planning of the economy at the micro level. Planning has always been characteristic of commodity production. Any labor association is connected by a detailed and operational division of labor, as well as cooperation, and therefore requires certain conscious planning calculations. However, in the conditions of a free market, planning and

management were carried out mainly at the level of production and did not affect commercial activities. The product manufacturers worked for an unknown market, and therefore it was impossible to check the validity of the production decisions made before the appearance of the finished product on the market. 3 of these positions of planning the volume and structure of production had an intuitive nature. The manufacturer has never had confidence that he will be able to sell his product at prices that suit him. Market relations were characterized by instability and unpredictability.

The concentration of production and the specialization of markets for individual products led to the fact that the circle of producers of a certain product narrowed to 10-15. As a result, the market became more accessible to entrepreneurs operating on it. It became possible to take into account the market situation: to divide it into spheres of influence of individual large commodity producers, to forecast the size. In other words, at any moment, you can take into account the volume of water, predict price changes, predict the actions of competitors and immediately react to them. This was facilitated by the development of informatics and the use of computers. Based on this, the entrepreneur regulates some parameters of his presence on the market and accordingly plans the volume and structure of production. The creation of multi-industry and multi-specialty companies reduced the risk and losses: during the production of one product, they can be compensated by a favorable situation during the production and sale of another.

One of the first successful attempts to adapt to the market (to mitigate the consequences of its spontaneous regulation) was a monopoly. It brought the scale of production planning beyond the immediate labor process, made it possible to study the market situation, the potential opportunities of its competitors. The achieved level of production concentration contributed to this process. Modern corporations, concerns, and conglomerates have significantly greater opportunities to study market conditions and implement them. Thus, in the prospectus of the Japanese concern "Mitsubishi" it is written: "First of all, our 13 thousand specialists in 120 foreign countries and 60 Japanese offices constantly inform us about changes in

market conditions around the world, and we know the real demand for any product everywhere and at any time. -What time". Firms specialized in the analysis of the state of the market and demand on it emerged [1].

Marketing is a special science. Marketing is the orientation of scientific and technical policy to achieve not only the current economic effect (profit maximization), but also to win in the struggle for the sales market. This provides a forecast of possible achievements in the field of updating equipment and technology, improving the quality of products. Modern marketing as a manifestation of the entire market economy and system of free enterprise includes the following processes.

1. Study of the market situation, i.e. market saturation with goods, price level, unsatisfied consumer demands, real and potential buyers, as well as possible actions of competitors.

2. Scientific planning of production, its systematic adjustment in accordance with changes in market conditions. So, marketing transforms production into a system that is consciously planned. It is based on accurate knowledge of customer needs, the market situation and the company's capabilities. Thanks to marketing, planning becomes the most important element of the market economy, it makes it possible to balance the demand and supply for a certain product.

3. Modern marketing is not only the adaptation of the production and commercial program to the dynamics of needs and demand, but also the formation of needs. Firms form consumption standards, evaluation criteria, stereotypes that influence purchases, etc. Manufacturers proceed with more or less accurate knowledge of the dynamics of needs and market expectations. The most important means of forming needs is advertising. The penetration of supply into the sphere of demand is a sign of a developed economy, the achievement of market civilization, although not everyone agrees with this. For example, J. Galbraith and other "new leftists" complain about the violent formation of needs, carried out allegedly by American business, they are unaware of the dictates of state socialist enterprises over the consumer.

Therefore, the market economy in its economic content is a powerful carrier of motivational levers for accelerating the development of scientific and technical progress and the economy of any country. The state's task is to rationally use them for the benefit of the entire nation. Stimulation thanks to the market mechanisms of the domestic producer contributes to the rapid growth of the gross domestic product and national income, and the progressively growing tax system becomes a powerful source of filling the budget. A strong budget allows solving a complex of production and social problems in countries with a socially oriented market model. It stimulates the development of entrepreneurship, business structures of a production nature, contributes to the formation of the middle class. At the current stage, Ukraine has all the economic prerequisites for the transition to a production economic model. Banking structures of a commercial nature have already accumulated the necessary financial resources as a result of the exploitation of the monetary intermediary economic model. They should be placed in a competitive environment that will prevent them from setting monopolistically high bank interest rates. This will make the credit such that it will perform a stimulating function and revive production and, in turn, will help to solve the entire complex of social problems.

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THE PERSONALITY OF THE COACH IN MODERN SPORTS

Taking into account the fact that sport is the field of unified comparison of achievements in certain types of physical exercises, the central figure is the person

himself, the athlete. Ever since people began to specially prepare for participation in competitions, another person appeared next to the athlete - his advisor, mentor, teacher, or in other words, a coach.

Greek gymnastic coaches brought training methods to a high, even by today's standards, level. They skillfully guided the athlete to engage in one or another type of physical exercise, thoughtfully applied psychological training and nutrition. They used developed systems for the development of physical qualities, methods of learning exercise techniques, while knowing holistic and disaggregated methods of learning. The Greeks clearly divided the process of training athletes into cycles: a 4-year macrocycle and a 4-day microcycle (tetra).

Today, the coach is one of the most important figures in sports, without whom one cannot imagine modern sports activities. And it is simply impossible to bring an athlete to the level of international results without the help of a coach.

The role and meaning of the coach have changed significantly as a result of the formation and organization of individual sports, standardization of competition rules, stabilization of the system of international competitions, etc.

Modern trainers are trained in special higher educational institutions. Most coaches, as a rule, have considerable experience in sports activities and a large amount of theoretical knowledge from various fields of science.

Taking into account education, work experience, performed functions and specific achievements of individual students or teams, coaches today are divided into appropriate categories.

The category of coaches affects the level of their salary.

Gradation by professional categories for coaches today is as follows: — higher category — salary 185 hryvnias; — first category — salary 170 hryvnias; — second category — salary 160 hryvnias; — without category — salary 155 hryvnias; There is also a surcharge for sports titles: — Honored Master of Sports — additional 15% of salary; — Honored coach of Ukraine — additional 20% of salary; — Honored employee of physical education — additional 20% of salary. The coaching categories are reviewed periodically, but not less than once every 4 years.

The main professional direction of a coach-teacher (trainer) is, in a narrow sense, the training of athletes of the appropriate (given) qualification, in a broad sense, training of athletes in the process of sports activities.

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ISOSCELES AND EQUILATERAL TRIANGLES

An isosceles triangle is a triangle whose two sides are equal to each other in length. Two equal sides of a triangle are called sides, and the third is called the base. The angles of an isosceles triangle at the base are equal. If you draw medians from the corners of the base, they will be equal. The heights of an isosceles triangle are equal to each other if they are drawn to its lateral sides. A median is a bisector and a base if it is drawn to the base of an isosceles triangle. The centres of the inscribed and described circles lie on the median (bisector, height) drawn to the base of the isosceles triangle.

The theorem on the equality of angles at the base of an isosceles triangle is attributed to the Greek mathematician Thales. He established that a triangle is completely defined by a side and the angles adjacent to it.

An equilateral triangle is a triangle in which all sides are equal to each other in length. Equilateral triangle is called right Due to the fact that an equilateral triangle is in some way an isosceles triangle, it has the same signs. All angles of an equilateral triangle are equal and measure 60 degrees.

- The centre of an equilateral triangle, as well as the inscribed in it and the circle circumscribed near it, is the point of intersection of all its medians (bisectors).

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ELECTRONIC DICTIONARY CHARACTERISTIC FEATURES

In the era of digital revolution electronic dictionaries are steadily gaining popularity and have already become one of the most important tools to facilitate cross-cultural communication. Hence, the beginning of electronic-dictionary era dates back to the late 1960s when Webster's Seventh New Collegiate Dictionary was created with the purpose of computational exploration. Since then dictionary publishers have created genuine databases for data storage and manipulation. Consequently, in some works of metalexigraphic research, the appropriateness of the term 'electronic dictionary' is questioned. As a result, to highlight the difference between printed dictionaries and digital lexicographic information systems such

alternative terms as 'leximat' [9, p. 121], 'multifunctional lexicographic database' [8, p. 327], 'vocabulary information system' [6, p. 147] are proposed.

Nevertheless, the term 'electronic dictionary' is still widely used to refer to any reference material stored in electronic form that provides information about spelling, meaning and usage [7]. Nowadays electronic dictionaries are defined as reference tools viewed as collections of electronically structured data accessed with multiple devices, enhanced with a wide range of functionalities, and used in various environments [4, p. 146]. Such a dictionary is a computer database of the specifically coded entries to enable quick word search with regard to morphological form and with the possibility of searching word combinations and changing translation direction [1, p. 67]. It is a new structured text including data represented in different media such as audio files, videos, graph-based views etc. that has a definite volume, a clear aim and serves a specific idea [2, p. 54]. Thus, the most characteristic features of electronic dictionaries are the following: – a peculiar combination of text and hypertext form of lexical material representation [1, 6]; – verbal as well as non-verbal means of lexical unit description availability [6]; – sufficient search facilities within dictionary wordlist as well as in various Internet sources [1].

Every electronic dictionary has a different interface and incorporates various advanced search techniques which makes the process of finding lexical data quicker and more flexible. Such dictionary designs including the use of hyperlinks, images and graphics, access to corpora concordances, availability of search functions by inverse indexes, anagrams, and phonetic similarity allow more complex search. Some scientists anticipate the possibility of simultaneous searches in different dictionaries [7], searching for a word from its phonetics, spelling similarities, etymology, thematic area, semantic relations with other words (synonymy, antonymy, hyponymy) [3, p. 89], part of speech etc. The inclusion of all these in dictionaries is a very useful complement to linguistic information.

In addition, electronic dictionaries are interactive. The user can add a comment such as a usage note, a context or a translation to a dictionary entry which may be useful in future searches. The modification of lexical data is typically a constant and continual process started again and again in the course of electronic dictionary use. Moreover, it is also possible to copy lexical data directly from the dictionary which is quite convenient and greatly simplifies the work on lexical material.

What is more, the user can also obtain the necessary information through complementary dictionary attributes such as images and audio files. The use of images and audio files is becoming common for electronic dictionaries. It helps the user to understand the meaning of a word better and creates a general mood of the user involvement.

Due to the characteristics mentioned above, interactivity, variety and flexibility in particular, electronic dictionaries have already become a multidimensional global information resource providing access to the lexical data required and considerably reducing search time. Moreover, they can be easily updated which guarantees a quick, precise and exhaustive search with a variety of search criteria combined.

It makes sense, therefore, to consider electronic dictionary as a special lexicographic resource which is characterized by non-linear textual structure inside and outside search, verbal and non-verbal information representation means, a compendious combination of phonetic, semantic, encyclopedic etc. information types and an easy access to other information resources.

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THE NATURE RESEVE FUND OF UKRAINE

Our planet is a small part of the universe, but it's the only place where human beings can live. Nowadays, our planet is in serious danger. Fortunately, it's not too late to solve these problems.

The Nature Reserve Fund of Ukraine is a "golden reserve" of Ukrainian nature, a fund that contains the most valuable natural treasures: forests and steppes, marshes and mountains, rocks and caves, rivers and seas, floodplains and even desert.

Here are the best preserved natural ecosystems and diversity of flora and fauna, as well as collections of plants and animals gathered in gardens and parks.

When we travel through the Carpathians or the sea coast, we do not think about nature protection, legal requirements and rarely remember that this wonderful place has the status of a national nature park or reserve.

The territories of the nature reserve fund can be natural - these are nature reserves, biosphere reserves, national nature parks, regional landscape parks, reserves, natural monuments and protected tracts. And there are also artificial ones - botanical gardens, zoological parks, dendrological parks; parks-monuments of landscape art.

In this regard, the legislation of Ukraine protects the nature reserve fund as a national treasure, which is subject to a special regime of protection, reproduction and use. Ukraine considers this fund as an integral part of the world system of natural territories and objects under special protection.

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THE CONCEPT OF PROJECT MANAGEMENT

Due to the increasingly turbulent and challenging business environment more and more companies are directing their operations towards the concept of project management.

A project can be defined as a unique set of activities with a precisely defined beginning and end, with limited resources, time and budget. The main purpose of the project is to create a specific product, service or result. In this regard, project management represents a turning point in business, which can create a significant gap between success and failure. Successful project implementation is a theme that often runs throughout the project management literature. As each project is specific and unique, it can be influenced by numerous factors, which are also specific and must be adapted to each project.

Critical success factors are defined as those inputs that enter the management system which directly or indirectly lead to the success of a specific project. (GAR, 2014)

Considering the impact of critical factors and their importance, it is necessary to put special focus on their identification, analysis and assessment. There are several methods for assessing critical success factors and some of them can be combined in order to provide better results.

The aim of this paper is to show the importance of critical success factors, the way of their identification and assessment as well as to point out the importance of timely response to critical factors that can negatively affect project implementation. The paper shows the importance of the projects themselves, their main characteristics, types and the project management process. Also, the critical factors of the project and their connection with the life cycle of the project are described.

The research framework of this paper includes the identification of critical success factors on the example of a student project, then the evaluation of the identified critical factors through GAP and PESTEL analysis and finally, their ranking through different dimensions of the project. At the end of the paper, concluding remarks are presented in the form of recommendations for treatment and elimination of identified critical success factors.

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BAPTISM OF KYIVAN RUS

The first attempts to bring Christianity to the territory of Kievan Rus belonged to Princess Olga, who was baptized and tried to limit the influence of paganism. It was possible to spread Christianity thanks to Prince Volodymyr. At the beginning of his reign, he gravitated towards strengthening the pagan faith, and only after a

few years of reign was he convinced that Kievan Rus needed a new faith that would be able to strengthen the state. This choice is attributed to many different factors. One of them is the good relations of Kievan Rus with Byzantium, which is considered one of the most powerful and developed states of that time, especially when it comes to culture. Therefore, it is not surprising that Volodymyr connected the future development of his country with the spread of modern faith. Some believe that the arrival of Christianity was due to an attempt to bring Kievan Rus closer to European civilization, that is, to borrow the most influential cultural and political practices. For some, the adoption of Christianity is seen as a decision that was dictated solely by political trends. That is, the opportunity to enter into marriages with powerful families of large European states. In my opinion, Christianity was one of the ways to consolidate power in the state, since most of the people of Kievan Rus were pagans and had different views on life and power. Christianity partially solved this problem of fragmentation, because the society of that time had something that united them (God, faith, fear of death). Nowadays, there are many theories about the reasons for the adoption of Christianity. However, no one can deny that this decision contributed to the development of Kyivan Rus and turned it into a civilized country. The baptism of Kyivan Rus began with Prince Volodymyr, who tried to show by his example that Christianity is the way to progress. He was baptized in 988 in the church of St. Jacob in Chersonese. Volodymyr married Anna, the daughter of the emperor of Byzantium. Their marriage was dictated by Byzantium's need for military aid from Russia. The defeat of the Bulgarians in 986 cost Byzantium dearly, so its emperor Vasyl II turned to the Prince of Kyiv. Marrying Anna became Volodymyr's condition, under which he was ready to provide military assistance. Although Anna resisted marriage in every possible way, she still married Volodymyr after he was baptized. There is a legend that together with two ships, one of which was Anna, and the other was the dowry of the emperor's daughter (gold and jewels), there was a third with poisoned wine, which was supposed to be a gift to Prince Volodymyr (there is evidence that the prince was weak to alcohol). During transportation, the third ship with wine sank. Its remains

were found relatively recently. It is believed that it was Anna who finally convinced the prince to choose the Christian faith. Soon after the wedding, Volodymyr and his wife returned to Kyiv, where he ordered all residents to convert to Christianity. This was seen not only as progress, but also as a choice in which world we will live. What will be our culture, our way of life, our views. If you look at the countries of the Middle and Far East today, you can see that the influence of Russia's choice of Christianity affected them as well. Kyivans were baptized on the Pochaina River, which is a tributary of the Dnieper. Traditions that have come down to our time indicate that many people did not want to renounce the pagan faith, but could not go against the prince's will and accepted Christianity. That year, all of Kyiv was baptized. Kyivan Rus became one of the largest Christian states in the world. In parallel with this, Prince Volodymyr oversaw the destruction of the statues of Dazhbog, Svarog, Perun and other pagan gods. Later, churches began to be built on the places where idols used to stand.

Cultural development As expected, the introduction of Christianity in Kyivan Rus contributed to the flourishing of culture. Very quickly, the philosophy of Christianity – love for one's neighbor – permeated the top of society and changed it. Christian morality became widespread, which condemned murders and superior treatment of other people. Prince Volodymyr, who before accepting Christianity was known for military campaigns, also changed. The Tale of the Ancient Years describes him as a man who conducted many military campaigns and led a debaucherous lifestyle. This is what is mentioned about the «Baptist» of Kyivan Rus in his early years in the Tale of the Ancient Years: Volodymyr was overcome by lust, and there were his wives... And he had 300 concubines in Vyshhorod, 300 in Bilhorod and 200 in Berestov, in the village that is now called Berestov. And he was insatiable in fornication, bringing married women to himself and spoiling girls. After accepting Christianity, he began to focus more attention not on the conquest of lands, but on the development of the culture of Kyivan Rus. Thanks to the fact that the prince paid considerable attention to schools, literacy spread rapidly in the state. The teachers were mostly priests who knew the Slavic language. The church became

something more than just a place to worship God. Since the clergy received considerable autonomy from the prince, it helped people to combine religion with cultural life. By the way, the development of culture was conditioned by the construction of churches. At the same time, Kyivan Rus adopted not only the religion and philosophy of European countries, but also their practices, in particular in the construction of churches, which were decorated with various frescoes. Before the invasion of Khan Batia in 1237-1240, more than 200 churches and cathedrals were built on the territory of Kyivan Rus. It can be said that the two centuries after the baptism of Russia became a real flowering of architecture. Therefore, thanks to the baptism, the power of the Kiev princes was strengthened, the role of Russia in international relations increased, and writing, architecture, and fine arts developed.

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REGIONAL ASPECTS OF LEARNING THE POLISH LANGUAGE

Language learning is one of the most important skills today. One of the foreign languages that have become very popular over the last decade, especially for Ukrainians, is Polish. Polish is amazing in its own way and is one of the most difficult languages to learn in the world.

Some people learn Polish for work and some for their own interest. Young people have started to learn Polish to study at university or to work in Poland. Due to the fact that Ukrainian, Polish and Russian are in the same language group of the Slavic languages of the Indo-European family, it seems to be easy to learn for Ukrainians.

Learning Polish is a very interesting and painstaking process. It is based not only on memorizing words and grammar. One must understand the language and try to use it. As we all know, there are four basic language skills – reading, listening, speaking and writing.

In every textbook for learning Polish as a foreign language, you can always practice three skills. The recommendation is to choose textbooks like “Hurra! Po polsku” or “Krok po kroku” or textbooks by Ewa Lipińska or Stanisław Mędak. You should practice speaking both in class and in the environment, and preferably with a native speaker. It is also good to realize that such textbooks always contain only the official, otherwise called literary form of the language. That is to say, it is not often possible to find slang, neologisms or any other form of Polish.

At the point when one can effectively communicate in everyday situations and understand the opinions and attitudes of others, both in oral communication and

in correspondence, that is, one reaches the intermediate level of language knowledge - A2-B1 in the Common European Framework of Reference for Languages [1].

From this point it is very important to show another side that is very important when learning a foreign language - culture. In Poland, culture is closely connected with the concept of territory, because depending on the region, new traditions or language - dialects - appear.

The Polish language is characterised by a substantial dialectal fragmentation connected with the history of the Polish language and Poland.

The regional differences correspond mainly to the tribal divisions which have existed for thousands of years. The largest dialects by the number of speakers are Wielkopolska (spoken in the west), Małopolska (spoken in the south and south-east), Mazowskie (Masurian), which is spoken all over central and eastern Poland, and Silesian in the south-west. The Mazovian dialect has features in common with Kashubian, which is an official dialect of Polish [2].

Polish became much more homogenised in the second half of the 20th century, due in part to the mass migration of several million Polish speakers from the eastern western part of the country following the annexation of the east by the Soviet Union after World War II. Generally, Poles still speak different dialects in different regions of the country, although there are few differences between these dialects. There are almost no difficulties in mutual understanding.

Returning to those who learn Polish, there may be difficulties in understanding and distinguishing between these dialects. For example, many Ukrainians, especially students, start to learn Polish on a course or with a tutor in Ukraine. That is, with people who can show only a small part of Polish culture and will do so only through their own perception. When a student gets into a university environment in Poland, he or she can gradually become immersed in the culture and will definitely hear a different Polish, depending on the region. To help the student understand and develop Polish, many universities offer classes or courses in Polish where the lecturers are Poles. Accordingly, Polish taught by a native speaker will be different from Polish learned in another country.

Moreover, although a pure, official language should be used in an academic setting, sometimes a dialect or certain words and phrases from there may be used. This will depend on the region and the student's specialty.

Thus, the differences in the Polish language arose because of territorial divisions. They have affected both culture, communication and other areas of life. In order to help people who are learning Polish, you have to emphasise culture and help them learn different features and dialects [3].

Nowadays, knowing a foreign language is an essential thing in order to get a good profession and not only. It is important to understand that learning a foreign language, Polish in particular, is a difficult but very interesting process.

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FERMAT'S LAST THEOREM

The history of Fermat's Last Theorem is very entertaining and instructive, and not only for mathematicians. Pierre de Fermat contributed to the development of various areas of mathematics, but the main part of his scientific heritage was published only posthumously. The fact is that mathematics for Fermat was

something like a hobby, not a professional occupation. He corresponded with the leading mathematicians of his time, but did not seek to publish his work. Fermat's scientific writings are mostly found in the form of private correspondence and fragmentary notes, often made in the margins of various books. It is on the margins (of the second volume of the ancient Greek Arithmetic by Diophantus. - Note. translator) shortly after the death of the mathematician, the descendants discovered the formulation of the famous theorem and the postscript:

"I have found a truly wonderful proof of this, but these margins are too narrow for him."

Proving: A farm in a wild look, foundations on a warehouse basis. Tse allow after the transformation of Rivnyan Ferma

$$x^n + y^n = Z^n \quad (1)$$

to the point

$$(X-a)^n + X^n - (X+b)^n = 0 \text{ overnight:}$$

- Forgive proof, calling every one to the unfamiliar;
- Z'yasuvati vzaemozv'yazok b z parameters x, a i n;
- Calculate the structural formula for x in questions for the whole number of decisions for all indications of steps n; - reveal the reason for the adoption of non-lih z at $n > 2$;

-both for positive and i for negative numbers x i y

Then, let's proceed to laying out the equation (2) according to Newton's binomial according to the fundamental parameter x:

$$(X-a)^n + x^n = 2x^n - nx^{n-1}a + c_n^2 x^{n-2} a^2 - c_n^3 x^{n-3} a^3 \dots + a^n$$

$$- (X+b)^n = x^n + nx^{n-1}b + c_n^2 x^{n-2} b^2 + c_n^3 x^{n-3} b^3 \dots + b^n$$

$$\Delta = x^n - nx^{n-1}(a+b) + c_n^2 x^{n-2}(a^2 - b^2) - c_n^3 x^{n-3}(a^3 + b^3) \dots + (a^n + b^n) = 0 \quad (3)$$

We took away the main equivalence (3) for the search for the whole solution z

It is easy to compare (3), having assumed $a = b = 1, 2, 3 \dots$.below). At this point of view, viraz (3)

$$x^n = 2^n x^{n-1} a + 2c n^3 x^{n-3} a^3 + 2c n^5 x^{n-5} a^5 + \dots (A^n + a^n) \dots \quad (4)$$

Significantly through $P(a, n) = 2c n^3 x^{n-3} a^3 + 2c n^5 x^{n-5} a^5 + \dots (a^n + a^n)$
 Let's see it later: $x^n \approx 2^n x^{n-1} a + P(a, n)$. Having divided the left and right parts of the equation (5) by x^{n-1} , we take away the structural virase for x :

$x \approx 2^n a + P(a, n) / x^{n-1}$ which $2^n a$ is a whole number, and the addition $P(a, n) \geq 0$ is a function, in such a way as to lay the proof of Fermat's theorem. When $P(a, n) = 0$ for $n = 1$ and 2 , the solution space z can be in integers; for $n > 2$ $P(a, n) > 0$ z is negligible in case of virishenni. To whom are the differences of the Fermat levels $n = 1$ and 2 equal to the levels $n > 2$. Again, the proof of Fermat's theorem is reduced to proving that the function $P(a, n) / x^{n-1}$ for $n > 2$ must be an infinite number.

Before the proof, we first introduce the understanding of the variables x, y, z , which play the main role in the proof. It is clear that basically all the proof of the theorem can be reduced to completion \ddot{ii} for x, y, z . Let's allow $a=b=2,3,4 \dots$ it is acceptable $a=b=1$. Then it is acceptable $x = 2^n + P(1, n) / x^{n-1}$ $y = x^{-1}$ $z = x + 1$
 (6)

The parameters i will be taken into account when proving Fermat's theorem. The other parameters x, y, z , in the larger distance x , in proportion to the numbers $2,3,4 \dots$ repeat the resulting characteristics of the outer x, y, z .

Turning to the proof, forward quickly the numeral and banner at the addition of $P(1, n) / x^{n-1}$ on the upper columns and we bring it to a glance:

$$P(1, n) / x^{n-1} = 2c n^3 / x^2 + 2c n^5 / x^4 + 2c n^7 / x^6 + \dots (1 + 1) / X^{n-1} \quad (7)$$

There are narrower versions of the formulation, one of which claims that this equation has no natural roots. However, it is obvious that if there are roots in whole numbers, they also exist in natural numbers. Indeed, let a, b, c be integers satisfying Fermat's equation. If n is even, then $|a|, |b|, |c|$ will also be roots, and if it is odd, then we transfer all powers with negative values to the other part of the equation, changing the sign. For example, if there was a solution to the equation $a^3 + b^3 = c^3$ and a was negative, and the others are

positive, then $b^3=c^3+(|-a|)^3$ $b^3=c^3+(|-a|)^3$, and we obtain natural solutions $c, |a|, b$. Therefore, both formulations are equivalent.

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CHEMICAL INDUSTRY OF THE WORLD

The chemical industry is a branch of heavy industry, at the enterprises of which, applying chemical methods of processing raw materials and materials, various chemical products are obtained (organic and inorganic chemicals, mineral fertilizers and raw materials for them, soda products, chlorine, bromine, dyes, reagents, chemical fibers, goods household chemicals, etc.). Depending on the production technology and purpose of the products, the chemical industry is divided into separate sub-sectors.

The chemical industry includes the following branches: mining and chemical, basic chemical, chemistry of organic synthesis, production and processing of polymer materials, chemistry of fine organic synthesis (production of varnishes, paints, photochemical products), household chemicals.

The chemical industry has a very complex branch structure. It includes almost two hundred interrelated productions with a wide range of products, which is rapidly updated. Many products of the chemical industry (synthetic rubber, artificial fibers,

etc.) replace natural raw materials or supplement the need for them. Among the important features of the chemical industry, we should mention the predominance of continuous technological processes, the end products of which can also be raw materials or components for other chemical industries. Products of the chemical industry are used in all areas of the country without exception. economy and in everyday life. The second half of the year saw a particularly rapid increase in the use of products from the chemical industry. 20th century, when due to the lack of traditional types of raw materials (wool, leather, wood, fur, even metals) and a large increase in the population, there was a need for substitutes for these materials. The development of the chemical industry requires an increasing emphasis on the development and implementation of highly efficient energy- and resource-saving, as well as environmentally friendly technologies.

The world's chemical industry has been developing at a fairly rapid pace in recent decades. It is most fully represented in the developed countries of the world. Its first seven representatives (the USA, Japan, Germany, France, Great Britain, Canada and Italy) produce more than 75% of the world's chemical products.

Today, it is very difficult to imagine a world without the chemical industry.

Products produced in this industry are used in almost all other industries: from food to nuclear.

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WHAT IS A PANIC ATTACK?

A panic attack is a sudden attack of fear that reaches its peak within a few minutes and has at least 4 of the following physical symptoms: 1) increased heart rate; 2) sweating; 3) tremor; 4) feeling of lack of air.

In the risk zone of developing panic attacks:

1) those who have problems with employment or are dissatisfied with their work;

2) those who have problems in marriage or with other close people;

3) those who suffer from a lack of healthy socialization.

A panic attack can happen suddenly and happen to a person at work, in public transport, etc. To overcome a panic attack, doctors advise the "Breathing for 5" exercise:

1) take a breath to the count of 5;

2) hold your breath for 5 seconds;

3) exhale to the count of 5;

4) repeat 5-8 times.

The mechanisms of panic attacks have not been thoroughly studied yet. Scientists claim that it has a neurobiological basis: patients with panic attacks have a hyperactive amygdala in the brain. It is the amygdala that is responsible for the

formation of both positive and negative emotions, but the frontal cortex, which in turn controls the activity of the amygdala, functions poorly. Internist Ruslan Buyanovskyi, who specializes in the diagnosis, treatment and prevention of internal diseases, explains that medicine distinguishes between panic attacks that have a trigger and those that occur without a visible stimulus.

That is why you need to take care of yourself and if you see a person with symptoms of a panic attack, immediately provide help.

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INFORMATION TECHNOLOGIES IN THE "PHYSICAL EDUCATION-SPORTS" SYSTEM

The introduction of information technologies in physical education is the need of the hour. Recently, many works have been published recently, but very few authors referred in their publications to the possibilities of using information technologies in the field of physical culture, sports, and the Olympic movement. Analyzing the published materials, it is possible to conditionally divide their application into three areas: - information provision of sports events, their coverage, presentation and advertising activities; - help in the growth of sportsmanship, conducting And what is more important, in refereeing sports events; - Olympic education as a means of conveying the ideas of the Olympic movement to the next generation. The purpose of our work is theoretical justification of the main directions and possibilities of using information technologies in the Olympic

movement. The object of research is the Olympic movement. The subject of the study is the direction of the use of information technologies in the Olympic movement. Analyzing the first direction, we can say that the history of the Olympic movement as a global cultural and sports event reflects the state and evolution of information technologies. Since its rebirth in 1894, the International Olympic Committee (IOC) began to search for an effective means of worldwide dissemination of the ideals and principles of Olympism, and even information about the modern Olympic Games. At the beginning of the century - it was only books, newspapers and magazines, then in the 20s. radio was added to them, and from 1936 - television, and in the early 1990s, during the introduction of new information technologies, the global computer network Internet was included in this process [1]. Undoubtedly, the traditional mass media still holds the primacy, as it is a powerful means that can be used for agitation and powerful propaganda of humanistic ideas of the principles of Olympism.

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CHEMISTRY AND ITS DIRECTIONS

Chemistry is the science of nature, which studies it in molecular-atomic transformed substances, destroying the molecules of substances, and in their place forming new molecules of other substances with new properties

Inorganic chemistry is one of the branches of chemistry that studies chemical elements. It was proposed by Mikhail Lomonosov in the 18th century to divide substances into organic and inorganic, so since 1752 he was called the founder of inorganic chemistry in many countries. Thanks to this section, man learned to create the necessary products at the final stage, the reactions of which help in the life of mankind and the preservation of life on Earth.

The main task is to increase theoretical research, to improve existing and to create new technological processes, to create new materials that modern technology requires, most often with predetermined properties.

The most important law is the conservation of the mass of a substance, the law of constant composition (every substance, regardless of its method of extraction, must always have a constant, qualitative and quantitative composition), equivalent (in the quantities of their interaction, their proportions are equivalent) multiple ratios (if two elements form several compounds, then the mass amounts of one element combined with the same amount of others are related to each other as a small whole number).

In inorganic chemistry, there are much more complex substances than simple ones. Already in the mid-1970s, approximately 100,000 connections were found. According to their composition, they are divided into binary, ternary and more complex quaternary, and according to their structure and properties - into oxides, carbides, borides, nitrides, silicides, hydrides, oxygen-containing acids and their salts.

Inorganic chemistry plays a primarily important role in the development of new technologies, namely obtaining rare metals for the needs of nuclear power, digital devices, various elements for modern communication systems, as well as materials used in medicine.

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FUNCTIONS OF LEARNING MANAGEMENT SYSTEMS

In today's reality, the issue of implementing distance education and online learning is extremely relevant. Despite the fact that the Law of Ukraine "On Education" already provided for distance learning [1], distance education is still not well developed in Ukraine, in general only some of its elements are used.

A comprehensive solution for organizing distance or blended learning is to use a learning management system (LMS) - software for administering, managing, tracking, reporting, automating and delivering educational courses, materials, training or learning programs [2]. Such systems provide: communication between participants in the educational process, centralized storing of content, tracking progress of learners, assessment, collecting and analyzing the received data [3]. The structural unit of such systems considered to be a "course" - a set of educational material for teaching a specific discipline. The basic functions of all LMSs are the following: management of courses, users and roles; online assessment; user feedback; synchronous and asynchronous learning; reporting and analytics.

Management of Courses, Users and Roles. Learning management systems are used to create structured course content. Content can be in the form of text, tables, images, links, videos, files, interactive quizzes, slideshows, etc. Teachers can also

extend the standard LMS features using additional modules, set up user registration and restrict access to course materials. This allows to create different types of users, such as teachers, students, parents, visitors, which helps to control what content the user can access.

Online Assessment. LMS allows teachers to set up automated grading for a variety of online assignments. For answers in the form of essay or those that are submitted as a file, manual grading is applied. In any case, the assessment is online, students can always view their results, track their progress, and teachers have the functionality of an e-journal and automatic calculation of the final grade.

User Feedback. With the help of LMS, students communicate both with teachers and with each other. Teachers can create chats and forums to discuss additional questions on topics and to enhance interaction in the course. The feedback system is a tool that helps teachers improve their work, determine what needs to be added or removed from the course, and helps students to feel comfortable and fully engaged in the learning process.

Synchronous and Asynchronous Learning. Students can learn both asynchronously (on demand, self-paced) using course materials such as pre-recorded videos, text explanations, interactive quizzes, and synchronously, with the help of such activities as webinars or live chat with the tutor. Access to lessons and course topics may be step-by-step, requiring a positive result on a particular topic before access to the next topic is granted.

Reporting and Analytics. LMSs provide an opportunity to track student's progress, identify problematic issues, receive reports on such key metrics as attendance statistics, completion rate and final grades.

As a conclusion, it should be noted that we have reviewed only the basic functions of LMS, which are typical for all systems that position themselves as a learning management system. However, considering the list of examined functions, it can be assumed that implementing LMSs in education is an extremely perspective trend and requires further study. Educational process with the use of all features of

learning management systems can become a full-fledged alternative to traditional, offline learning.

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COMPARATIVE ANALYSIS OF APPROACHES TO WEBSITE LAYOUT

Comparative analysis of approaches to website layout Key figures needed to understand the “state of digital technology” today:

As of January 2022, the world's population was 7.91 billion, more than two-thirds (67.1%) now use a mobile phone, and the number of unique users will reach 5.31 billion by the beginning of 2022. The total number of users worldwide increased by 1.8 percent last year, which is 95 million new mobile users.

At the beginning of 2022, the number of Internet users worldwide has increased to 4.95 billion , and the Internet penetration rate is now 62.5% of the total world population.

Data for November 2021 shows that the typical mobile internet user enjoyed an average download speed of 29 Mbps, nearly a third faster (+32.2%) than the average speed for November 2020, significantly expanding mobile capabilities.

Most people use their phone more often than their computer, so it can be concluded that the vast majority of visitors to your site will visit you from their phone. But don't forget about other devices that can also visit your site.

This requires paying more and more attention to the optimization of your site for various mobile devices, it should make the most positive impression on the user. Such optimization of the site for various devices has long become one of the mandatory points in the technical task for development. And today you can hear more and more often about the Mobile First approach. The essence of this approach is that the layout for the smallest screen is developed first, and only then in the order of increasing displays of large sizes. The advantages of this approach include the prioritization of user convenience, a font proportional to the size of the screen, the absence of cropped images and page scaling. The user path is built taking into account the limitations that may arise in the mobile version of the site. According to research by Google, we are willing to wait only one or two seconds for a site to load, if the wait lasts more than 3 seconds, the probability that we will refuse to visit the site increases by 32%, and if we wait more than 5 seconds, the probability of refusal increases already by 90%.

Pages that are immediately optimized for mobile devices load faster than responsive ones. The ease of the site, designed according to the Mobile First principle, provides:

- only the most important content is posted;
- smaller images are used, but the quality remains excellent;
- absence of bulky code, which is formed due to resizing of site elements using CSS and numerous media requests;

Also, this principle is based on the ergonomics schemes of mobile devices, which are built on the "rule of thumb". As it turned out, about 75% of people touch the display with only one thumb. Areas of the screen have been segmented for ease of use with the thumb. Therefore, the entire ergonomics of content placement on the screen is based on the use of these schemes.

Site optimization for various mobile devices

If you are a brand owner, a product manufacturer or a service provider, you have to take care of your business. And in order for your business to work well, everything must also work correctly at all stages of its implementation.

We search for most of the information using our mobile phone or tablet, because a desktop computer is not always nearby, and sometimes it is simply more convenient. Therefore, when visiting a site that interests us, we expect convenience in obtaining the information that interests us. And if our expectations are not met, we quickly continue our search.

An optimized website is always a convenient site and it does not matter from which device we visit it. It is also beneficial for the owner of this resource and has certain advantages:

- It's easier for users to share your content using a single URL.
- In this case, Google indexes the resources of the page more accurately, instead of registering its different versions.
- Creating an adaptive site takes less time than creating several versions of the same site.
- The probability of typical errors typical for mobile sites decreases.
- No need for redirection, which speeds up downloads.
- Saving resources when scanning the site with the Googlebot robot. The Googlebot user agent can scan a page with a responsive design in one go, which in turn will help Google index more materials on your site and add them to the search results in a timely manner. Basically, two main approaches are used to adapt sites: Adaptive Web Design (AWD), Responsive Web Design (RWD) and the principle of Mobile First Design.

Responsive Web Design (RWD)

Responsive design adapts to any screen size on which the site opens. This is due to the flexible markup of the site, the use of CSS media and a flexible grid. CSS settings are locked into media rules. Each such media rule contains an execution condition based on so-called break points. When entering the site, the browser receives the entire page from your site and analyzes information about the width of the screen of the device from which the user enters, according to this information, the media rule "triggers" and all settings from it are applied by the user's browser. This design allows you to adjust the size of the site page to the device from which this page was opened. When using flexible design, one layout is created that is universal for all devices that can be used. When creating a layout, the question may arise as to which breakpoints should be used. To do this, you can check popular frameworks to decide on your own approach.

Bootstrap has the following breakpoints: small: up to 576px, medium: from 576px to 768px, large: from 768px to 992px, extra large: from 992px to 1200px, Extra extra large: 1200px to 1400px.

Foundation mainly has breakpoints: small: up to 640px, medium: from 640px to 1024px, large: 1024px and more.

In *Bulma*: mobile: up to 768px, tablet: from 769px, desktop: from 1024px, widescreen: from 1216px, fullhd: from 1408px.

The advantages include integrity. Your site exists in one version for all devices, it is usually easier to implement, SEO friendly, sites with a flexible design rank higher in the search results pages. In the long run, such sites require less time and effort to maintain, even if a new device or screen size appears on the market.

Disadvantages include that it provides less control over screen size, elements may shift, and takes longer to load on a mobile phone.

Adaptive Web Design (AWD)

Unlike responsive design, where CSS rules based on percentage values are responsible for adjusting to the desired screen width, adaptive design uses separate layouts for each screen size you need.

With adaptive design, site layouts are created based on the standards of screen widths, for example: 320px, 480px, 768px, 960px, 1200px, 1600px. Depending on the data on site visitors, the number of layouts may be smaller. For each such width, a separate layout is created, in which all the necessary elements are placed.

The features of different devices are taken into account in adaptive layouts. For example, for screens with a width of 1200px and 1600px - only horizontal orientation and a large viewing area, and for tablets and smartphones - touch control and the ability to rotate the device for viewing.

When a visitor enters the site, the server uses scripts to receive information about the device from which the connection is made and in response sends packets with data that are already optimized for the device from which the request is made. This significantly reduces the amount of traffic and correspondingly reduces the page load time.

Responsive design sites are less versatile, as each new device with a specific screen size requires the creation of new layouts. Adaptive design is characterized by the complexity of development due to greater labor intensity and, as a result, the cost of the project. Also, such a site is more difficult to maintain, because changes have to be made to each layout separately.

Mobile app owners usually use them to visit websites and make online purchases. In order for their journey to be as convenient as possible, your site needs either an adaptive or a flexible version of the design. Both options make it much easier for users and visitors to navigate your website or online store.

Responsive design is recommended in cases where you have a limited budget and time for development. At the same time, responsive design will help you speed up the site's loading time.

There is no unequivocal answer to what is best for you, because everything is individual.

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LEARNING SYNONYMS AND ANTONYMS IN THE ENGLISH LANGUAGE

Synonyms and antonyms are two universal systematic lexicological categories. Its study focuses on the theoretical concepts of the Ukrainian and English languages.

The English language, like the Ukrainian language, is extremely rich in synonyms. They are used in all kinds of speech: both in spoken and written speech.

Synonyms are used to increase the expressiveness of the language, which allows to avoid monotony; to clarify the concept."Synonyms are words that are close or identical in meaning to others, but different from them in sound form" [3, p. 185].

There are 2 groups of synonyms: ideographic and stylistic. Compare: to burn: to blaze (to burn fiercely), to flame (to burn or cause to burn brightly), to flare (to burn or cause to burn with an unsteady or sudden bright flame), to glow (to emit a steady even light without flames) – these words mean the late intensity and appearance of one and the same process – the process of burning. This is an example of ideographic synonyms.

Stylistic synonyms are words that are close, and sometimes identical in meaning, that are used in the different genres / language styles: Father (neutral); Parent (official-business); Dad (spoken).

They are distinguished by emotional entertainment or attitude to different styles. They are also divided into full and partial.

Full, or as they are also called, absolute synonyms, they are called words that have the same semantic structure, they are identical in meaning.

This phenomenon is rare, there are still few of them. As usual, these words are related to terminology (screenwriter – scriptwriter – scenarist).

Such phenomena as Americanisms are known. They also influence the formation of synonym pairs in the English language (cozy – swimsuit, jumper – sweater).

A significant number of synonyms appeared as a result of the appearance of the widespread use in modern English short forms: sis – sister, telly – television, phone – telephone, fridge – refrigerator.

Partial synonyms are multi-meaningful words that coincide only in some of their dictionary meanings. They can be different by shades of meaning, emotional

and exclusive entertainment, stylistic functions (convince – persuade; survive – outlive) [2, p. 207-208].

Another group called it antonyms. Antonyms are words that are different in sound and opposite in meaning [1, p. 17]. But we can't get it for all the words of the language. First of all, these are the names of concrete things. Antonyms are not appropriate for them. For example: foot, eye, pen, sun, wall.

However, words that indicate the quality of the things have corresponding antonyms. These can be different parts of speech: verbs (enter – go out), adjectives (cold – hot), nouns (courage – cowardice), adverbs (dark – light).

Nouns with antonyms can be divided into several groups:

- state or activity of a person: work – rest, life – death, health – illness;
- conception, nature and attributes of a person: love – hatred, joy – sorrow, timid – arrogant;
- hours: day – night, summer – winter, beginning – end [4].

In order to remember the English word, it is necessary to tell the association and to form on the subconscious an inseparable bond. Scientists agree with this statement. Because when we approach words with antonyms and synonyms, we create similar connections.

According to the recommendations of foreign language teachers, it is better to learn words by topic. After all, reading the text, we encounter many synonyms and antonyms for the same word, which is used in sentences. This promotes more effective memorization. If we study synonymic and antonymic pairs, we create on a subconscious level strong ties. And therefore, we will be able to remember information longer. Let's give an example:

A frequently used adjective beautiful. Let's use this word (and there are many of them) – pretty, lovely, handsome, comely.

Let's find antonyms (there are also a large number) – awful, horrible, dreadful.

We can come to the conclusion that by memorizing only one word, we replenish our lexical store for several more words (as a minimum for three). We

create associative connections and that information is retained in our memory for a long time. Working with antonyms or synonyms is an interesting activity. This can happen in the following way: learning words in pairs, doing different exercises (choosing synonyms or antonyms for proposed words, making own sentences, situations, etc.) [4; 5].

It is important to pay special attention to the translation from Ukrainian to English and vice versa.

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MODERN PROBLEMS OF ZOOLOGY

In every science, there are problems that scientists face one on one and look for ways to solve them. Zoology is no exception to the rules. To understand what prevents the study of zoology as a science, let's figure out what it is in general. Zoology is a science that studies the animal world.

1) One of the main problems is the different views of scientists on the same things. For example, the distribution of taxa: genus, species, family, etc. Often, scientists divide them as it is convenient for them, because of this, in different manuals, the same creature belongs to different taxa.

Another, very common problem, especially in modern times, is poaching. Usually, such people hunt endangered and simply important species of animals, which accelerates their extinction.

2) We should not forget about various other, more global problems. This is insufficient protection of nature reserves. Due to which, the extinction of the species is also accelerated. Animal diseases are also a big threat. Especially some kind of rabies, it is not treated, with such animals, it is not even worth contacting at all. And, of course, ecology and irrational use of resources. But from such problems, not only zoology will suffer, but also the whole planet.

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THE THEOREM OF PYTHAGORAS AND METHODS OF ITS PROOF

The Pythagorean theorem is one of the key tools for solving problems in Euclidean geometry. In the school course of mathematics, it is assumed to prove the Pythagorean theorem by one of the methods.[3;5] In this work, I try to collect various ways of proving the famous Pythagorean theorem. Ancient proofs that have come down to our times deserve priority consideration. The theorem was proved by the Greek mathematician Pythagoras, after whom it is named (there are other versions, in particular, an alternative opinion that this theorem in its general form was formulated by the Pythagorean mathematician Hippasus).

The theorem sounds as follows:

In a right triangle, the area of the square built on the hypotenuse is equal to the sum of the areas of the squares built on the legs.

The classical formulation of the Pythagorean theorem:

If the sides of a right triangle are the sides of squares, then the area of the square built on the hypotenuse is equal to the sum of the areas of the squares built on the legs.

Denoting the length of the hypotenuse of the triangle as c , and the lengths of the legs as a and b , we get the following formula:

Theorem of Pythagoras: $a^2 + b^2 = c^2$

Thus, the Pythagorean theorem establishes a relationship that allows you to determine the side of a right triangle, knowing the lengths of the other two. The Pythagorean theorem is a special case of the theorem of cosines, which determines the ratio between the sides of an arbitrary triangle.

Ancient Chinese evidence. [1;9] Mathematical treatises of ancient China reached us in the 2nd century edition. B.C. The fact is that in 213 BC the Chinese emperor Shi Huang-di, seeking to eliminate former traditions, ordered the burning of all ancient books. In the II century to n. e. paper was invented in China and the reproduction of ancient books began at the same time. This is how the subject in nine books arose" - the most important of the preserved mathematical and astronomical works, in the book "Mathematics" there is a drawing that proves the Pythagorean theorem. The key to this proof is easy to find. Indeed, in the ancient Chinese drawing, four equal right-angled triangles with legs a , b and hypotenuse c are arranged so that their outer contour forms a square with side $a + b$, and the inner one is a square with side c built on the hypotenuse. If the square with side c is cut out and the remaining 4 shaded triangles are placed into two rectangles, then it is clear that the resulting void is equal to c^2 on the one hand, and $a^2 + b^2$ on the other, i.e. $c^2 = a^2 + b^2$. The theorem is proved.

Note that with this

In the conclusion, I want to say once again about the importance of the theorem. Its importance lies primarily in the fact that most geometry theorems can be derived from it or with its help. Unfortunately, it is impossible to give all or even the most beautiful proofs of the theorem here, but we would like to hope that the given examples convincingly testify to the huge interest shown in relation to it today, and yesterday.

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PROJECT ACTIVITY IN COMPUTER SCIENCE LESSONS

The project method is an alternative to the classroom system, which allows not only to gain comprehensive knowledge of the subject, but also to develop independence, a thirst for new knowledge, the ability to structure material and allocate time, etc. Recently, in connection with the spread of personally oriented education, this method has begun to be revived, teachers of various subjects are turning to it more and more often, because it helps to form the personality of students in activities and social relations.

The term project activity was first introduced and classified by V. Kilpatrick [1]. Therefore, four types of project activity can be distinguished:

- Implementation of the idea in an external form;
- Overcoming internal barriers;
- Acquisition of new skills, knowledge and experience;
- Obtaining aesthetic pleasure.

As a proof of this classification, we can say that indeed, students preparing projects learn to implement an idea and implement it. Also, when defending the completed project, the student must speak in front of the class, tell the material and answer questions (if there are any), this helps to overcome the fear of the public, develop public speaking and communication skills. In the process of project preparation, the student searches for new information, structures, analyzes and prepares for presentation in the form of a report, presentation, etc.[2]

Since at school, the subject "Informatics" is closely related to the development of the ability to use information and communication technologies, to integrate them into other subjects, as well as to the development of digital literacy among schoolchildren, the method of project activity is most suitable for this subject. Also, thanks to the project method, teachers manage to make the computer science course not only informative, but also interesting and exciting, because the variety of material presentation serves to increase the productivity of learning. For example, before starting to study the topic of who invented the first programming language, it is worth giving students the opportunity to find interesting information about Ada Lovelace, the first programming language, etc. This will not only help students learn the material better, it will also diversify the learning process.

The use of this project involves a departure from the authoritarian style of teaching, it involves a well-thought-out and justified approach to the choice of methods, means, and forms of teaching design.[3]

The advantage of using project activities in computer science lessons is that one of the means of implementation is presentations, they can be made using both offline programs (Power Point) and online (Prezi, Canva, Powtoon, etc.). This is an advantage, because in addition to the already mentioned skills that are developed during the preparation of projects, the ability to use the mentioned programs is also developed, because Power Point is studied in the school computer science course.

Therefore, the use of the project method is very useful in the computer science course, it helps to develop many skills and abilities that will help students in further studies.

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TECHNOLOGIES OF SOCIO-PEDAGOGICAL WORK ABROAD

In accordance with the Law on Social Welfare, social services are obliged to monitor the living conditions of children, youth and the elderly in the respective countries. This supervision should be carried out in such a way that local public authorities can identify the need of individuals as early as possible and provide special support. Information about the lives of people who are in a difficult situation, so public organizations participate in the general activities of these categories of people. They are provided with material, psychological, legal, medical and physical assistance.

Specifics of socio-pedagogical work with alcohol and drug addicts (this specificity has 4 levels: prevention, diagnosis, treatment, rehabilitation)

Peculiarities of socio-pedagogical assistance for the elderly (Offers of social support for the elderly: nutrition, support, medical care)

Features of the hospice care system (Types of care: social, medical, psychological)

Work with street children (Certain work with this category of children: creation of shelters and hostels, group consultations)

Work with gifted children (Rules of approach to such children: protection-protective, social-pedagogical, social-psychological, social-integrative)

Work with underage mothers (the following specialists of various professions were added to the work with underage mothers: doctor, lawyer, psychologist, social workers)

Work with adoptive families in foreign countries (Evaluation of adoptive parents, preparation for receiving children, approval of candidates)

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A FOOTBALL COACH IS A JOB FOR LIFE

The coach is responsible for all victories and defeats of the team. That is why it is so important to understand what a football coach should be and what burden of responsibility he bears. He acts as a coordinator, assistant and friend for each player. A real football coach is a person who should not only be an experienced mentor, but also remain a sensitive and loyal friend, comrade, and sometimes even a father.[1]

In my opinion, it is important to skillfully use your strong qualities. This is relevant both for every player and for the coach, who needs to clearly know the capabilities of his football players and to reveal them as fully as possible. And, on the contrary, to "disguise" your weaknesses, avoid using them in the game. Peculiarities of the profession of a football coach

Despite the fact that the profession of a football coach is not currently on the top lists of the most sought-after and popular, it is rightfully considered extremely responsible and difficult.

The way to success or where to start

Naturally, the beginning of such a career should be a great desire and boundless love for football. However, without specialized education, it will be quite difficult, if not impossible, to achieve significant success. Therefore, for a more successful start, you can start playing for the school team or try yourself as a coach of your backyard boys' team.[2]

Despite the fact that it is not easy to become a coach, it is to a greater extent a person's vocation. A real football coach is a person who should not only be an experienced mentor, but also remain a sensitive and loyal friend, comrade, and sometimes even a father.

At the same time, he must have the following qualities

- ability to hear, listen, understand and draw conclusions; - stress resistance; - sense of loyalty and tolerance; - justice and patience; - sense of tact; - skills of a manager, teacher, psychologist and mentor. Still, the optimal solution is a fusion of youth and experience.[3]

When a player becomes a coach, he pays attention to completely different things in football than before. He begins to think about his path and how to help others - young people - to achieve the same success. And for that you have to study. Fortunately, there are now such possibilities.

Choosing the profession of a football team coach, a person must be aware of the fact that in this way he is creating a real family for which he will be fully responsible in the future, and which will fully rely on his skill. And even if there is no unequivocal answer to the question of what a football coach should be, there is only one clear understanding that he should be a responsible person who is fully devoted to this work. Because a football coach is more than just a profession. A football coach is a lifelong job.

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TEACHING STUDENTS THE BASICS OF COMPUTER MODELING USING OBJECT-ORIENTED PROGRAMMING ENVIRONMENT (OOP)

The study of the theoretical foundations of the object-oriented approach, as well as specific implementations and tools of OOP in various programming languages, aimed at forming students' competencies necessary for successful professional activity. This can be ensured only with the use of various methods and means of teaching.

It is worth understanding what "object-oriented programming" is - it considers the whole system in the form of objects that somehow interact with each other.

OOP is based on four main concepts: encapsulation, inheritance, polymorphism and abstraction. One of the advantages of OOP is better software modularity (a thousand functions of a procedural language can be replaced by several dozen classes with their own methods). Despite the fact that this paradigm appeared in the 1960s, it was not widely used until the 1990s, when the development of computers and computer networks made it possible to write extremely large and complex software, which forced to reconsider approaches to writing programs. Today, many programming languages either support OOP (PHP, Lua) or are fully object-oriented (in particular, Java, C#, C++, Python, Ruby and Objective-C, ActionScript 3, Swift, Vala).[2]

In order to teach students object-oriented programming, it is worth paying attention to the fact that OOP is primarily a methodology of program development, the methods of which are similar to the natural style of human

thinking. In order for students to get a positive effect from learning, it is advisable to adhere to the following stages of introducing the fundamental concepts of OOP: [1]

1. discussion the basic principles of object-oriented thinking;
2. introduction of the concept of object based on the observation of the real world;
3. formation of the concept of class by abstracting and generalizing the properties of many similar objects;
4. introduction the concept of inheritance based on the studied concept of class;
5. illustration of subclasses by adding new properties and methods to an existing class.

Some elements of object-oriented programming are studied by students in the junior grades, as for the senior grades, in grades 7-8, the program recommends studying Python or Object Pascal (Lazarus); in grades 10-11, the basics of algorithmization and programming are studied in classes academic and profile levels. All programming languages studied at school (Scratch, Python, Object Pascal, Free Pascal, Java and others) support object-oriented programming.[3]

After analyzing some literature, we can conclude that object-oriented programming is a modern programming paradigm that is used in most modern programming languages. Teaching students the basics of object-oriented programming has certain specifics and requires different approaches. However, success in learning this programming paradigm leads to the fact that it is easier for students to learn other programming languages that are based on the object-oriented paradigm.

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UKRAINIAN REVOLUTION 1917-1921

The Ukrainian revolution can be divided into three stages.

1. March 1917 – April 1918. Formation and activity of the Ukrainian Central Rada, proclamation of its Universals.

2. April 29 - December 14, 1918. Hetman Pavel Skoropadskyi's rule.

3. December 1918 - November 1921. Establishment of the power of the Directorate of the Ukrainian People's Republic, deployment and suppression of a large-scale insurgent movement.

Day of the Ukrainian Central Rada

The first stage of the Ukrainian Revolution began immediately after the victory of the Russian February Revolution in Petrograd. At that time, a national representative body was created in Kyiv - the Ukrainian Central Council (UCR). After the All-Ukrainian National Congress, it turned from a Kyiv organization into an all-Ukrainian organization. At the 1st Universal Conference, the Ukrainian SSR declared its political goal - the acquisition of Ukrainian autonomy as part of the democratic federal republic of Russia. Autonomous Ukraine was supposed to

include territories where Ukrainians make up the majority of the population. The II Universal Assembly of the Central Rada created the executive body of power - the General Secretariat.

In many cities of the former empire, the Ukrainian national rise took place. Ukrainians who were part of the Russian Imperial Army and the Russian Imperial Navy gathered for rallies, "Ukrainized" and recognized the Ukrainian SSR.. After the seizure of power in Petrograd by the Bolsheviks, hopes for a democratic system in Russia gradually dissipated.

The Ukrainian People's Republic (UNR) was declared the 3rd Universal of the Ukrainian People's Republic of Ukraine. Almost immediately, it was subjected to Bolshevik aggression from Russia. In the midst of hostilities, the Ukrainian SSR proclaimed the independence of the Ukrainian People's Republic (IV Universal). Despite the heroism at Kruty and in other unequal battles, the Ukrainian troops retreated. The Ukrainian People's Republic concluded the first international agreement in the modern history of Ukraine in Brest. Diplomatic recognition and military assistance of the Central Powers strengthened the Ukrainian People's Republic and made it possible to recapture territories occupied by the Bolsheviks.

Hetmanate period (April–December 1918)

Having gained power, Hetman Pavlo Skoropadskyi took advantage of the short-lived peace period to strengthen the foundations of Ukrainian statehood. During the period of the Hetmanate, an effective regional administration was developed. She controlled the largest ever Ukrainian revolution in the territory, and also conducted negotiations on the inclusion of Crimea and the Kuban into the Ukrainian State. The Ukrainian State was recognized by 30 countries. Kamianets-Podilskyi University was opened in Ukraine under the Hetman, the Academy of Sciences was founded, the foundations of the Ukrainian Autocephalous Orthodox Church were laid, and other important initiatives were carried out. The ambitious military reform was not completed due to the unfavorable external and internal political situation. The achievements of the state-building period of the Hetmanate were used by the restored UNR.

Directory Day (December 1918–November 1921)

The Directory restored the republican order and democratic government in Ukraine. The act of merger of the Ukrainian People's Republic with the Western Ukrainian People's Republic (ZUNR) testified to the will of the Ukrainian people to the Cathedral. The Labor Congress convened by the Directorate provided a broad representative basis for the Ukrainian government. A Ukrainian delegation took part in the Paris Peace Conference, where the fate of participants in the First World War was decided. Throughout this period, the Ukrainian People's Republic fought hard battles for independence and territorial integrity. Together with the Galician Army, the UNR Army demonstrated heroism and did not surrender even when several small counties remained under the Ukrainian flag. The counteroffensives of March 1919, the Kyiv–Odesa offensive, and the First Winter Campaign proved the will of Ukrainians to fight. The conclusion of the Warsaw Pact laid the foundation for a long-term Ukrainian-Polish alliance and provided a ghostly chance for victory in the spring of 1920. However, even the Ukrainian soldiers abandoned by the ally did not stop trying to gain a foothold in their native lands. A mass insurgent movement continued until November 1921.

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IONIC CHEMICAL BOND

An ionic chemical bond, also known as an ionic chemical bond, is a type of chemical bond between positively and negatively charged ions. Occurs when an atom donates one or more electrons to another atom, as a result of which each of the atoms becomes the owner of a stable set of electrons.

This type of bond is electrostatic in nature and forms between pronounced metals and nonmetals. The ionic type of bond is realized in the formation of most salts, metal oxides and hydroxides of metals and non-metals.

Ionic compounds exist as crystals that are solid under normal conditions, and formulas such as CsF, Na₂O, Ca(OH)₂, etc. reflect the ratio of ions in the crystal.

Ionic compounds have high (compared to covalent) melting and boiling points, are well soluble in water and other polar solvents, poorly soluble in benzene, tetrachloromethane, acetone and other non-polar solvents.

In the solid state, ionic compounds do not conduct electricity.

Formed between atoms or groups of atoms with a significant difference in electronegativities.

Crystalline solids formed due to ionic bonding are called ionic crystals. It can be seen from the electronic formulas that these atoms have incomplete outer electron shells. It is obvious that, in order to reach the electron configuration of the nearest inert gas, it is easier for a Na atom to give up 1 electron than to add 7, and for a SI atom it is easier to add 1 electron than to give up 7. Therefore, it was established that during chemical interaction, the Na atom gives up 1 electron, and the SI atom attaches it.

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BATTLE OF STALINGRAD (1942)

The Battle of Stalingrad lasted from mid-July 1942 to early 1943. In September 1942, the commander of the German 6th Army, General Friedrich Paulus, launched an offensive on Stalingrad to break through to the oil fields in the Caucasus. During the first assault on the city (July-November 1942), his troops made it to the Volga only on a section of half a kilometer. After that, the battles were fought in tight city quarters and took on a protracted positional nature. At Stalingrad, it became obvious that the Wehrmacht no longer had enough strength for a quick, successful offensive. Attempts by the Soviet command to defeat the German troops with frontal attacks were also unsuccessful and led to unjustified human losses. Operation «Uranus» was developed to defeat the Germans: exhaustion of the enemy in defensive battles, counteroffensive and encirclement of the enemy army.

The Battle of Stalingrad became one of the fiercest in the war. The Germans destroyed the city's industrial facilities. During the day, the enemy returned the areas captured by one side under their control. Having exhausted the German units in defensive battles, on November 19, the Soviet troops launched a counterattack. The main part of the German army (300,000 people) was surrounded. A. Hitler categorically rejected the proposal of F. Paulus to break through the encirclement ring from the inside. He was counting on a tank breakthrough from the outside. However, the offensive failed and the army of F. Paulus was left to fend for itself.

Attempts to establish an «air bridge» to supply the besieged with food and ammunition were unsuccessful. Meanwhile, frosts set in, which made the situation of the German troops even more difficult.

A.Hitler ordered F. Paulus to fight to the last bullet and awarded him the rank of field marshal. At the end of January 1943, the Germans had little choice: either die of cold and hunger, or surrender. On the penultimate day of January, F. Paulus chose the second. For the first time in the history of Germany, a field marshal was captured. The rest of the surrounded troops surrendered three days later.

In Germany, mourning was announced on this day. In total, German losses during the entire period of the Battle of Stalingrad amounted to almost 1.5 million people.

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COMPUTER PROGRAMMING

Computer programming is a special type of human activity. With on the one hand, it is understood as art (D. Knuth), on the other hand, it is subject to the laws of logic. Programming is closely related to mathematics, although in its nature it is significantly different from it. The result of programming not an abstract, but a very real existing product (application), and this is indisputable brings programming closer to engineering. During creation of the software product, in addition to the main goal - implementation of the algorithm, often is necessary and optimization of the efficiency of its work. Mathematics, engineering and programming today go hand in hand. Today, it is possible to single out several programming languages that influence the software industry: Visual Basic, C, C++, Object Pascal, Java, C#,

Eiffel, Oberon. Each of them can be used to one degree or another as a quality algorithmic language.[1] Algorithmic language, generally speaking, is different from language programming. The evolution of programming languages has led to the fact that the concept algorithmic language was replaced by the concept of programming language, which follows dissolved in the implementation environment (broadcast environment, executing system, set of standard libraries). When implementing the algorithm within a certain environment requires a lot of attention to study the environment, and not only programming language it supports. For technical details often the understanding of the idea of the algorithm is lost. And without this, transfer the algorithm to another language and applying it will be quite a difficult task. However Algorithmic language should not be abstract, because solutions are often checked should be done experimentally. That is, an algorithmic language has real to exist, it must rely on a small number of basic concepts and be expressive enough to present various kinds of algorithms. Language should be concise, available on most common computer platforms. Most algorithmic languages, such as C, Pascal, were created in the 1960s and 1970s. 20th century During this time, new languages appeared, the ideas they brought were embedded in modern programming languages (this happened with the concept of object-oriented programming) [2].

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GAMING DISORDER

The urgency of the problem is due to the fact that any addiction, even one that does not seem like it at first glance, insensibly destroys the social life and the psyche (or mind) of a person and needs the mandatory involvement (intervention) of qualified and specialized help in its treatment.

Today, video game addiction has already become a real pandemic of the whole world. Psychologists refer to addiction to computer games as a kind of emotional "drug addiction" caused by technical means. At first, games provide an opportunity to get quick emotions, escape from problems in everyday life (reality), get what you want (something that may be contrary to the current law in reality), find "friends" (overcome the feeling of loneliness) etc. However, like any other addiction, gaming disorder with its constant "saturation" turns into a way of life, captures thoughts and doesn't let go into reality.

Currently, it is difficult or even impossible to find a person above the age of 20 who has never played computer games. It's no secret that children in adolescence suffer the most from gambling, especially young men, but adults are no exception.

Video game addiction leads to such negative consequences as: somatic and sensory disorders (carpal tunnel syndrome, reduced visual acuity, distorted posture, increased fatigue, frequent headaches, migraines, etc.), acute antisociality, helplessness in real life (inability to solving life problems), deterioration or loss of family relationships, accumulation of monetary debts that a person is unable to pay, psychomotor disorders, psychopathologies, etc. There are also fatal outcomes. The most famous of them is the death of a Chinese girl from multi-day immersion in a popular online game in 2005.

It is possible to determine the presence of gaming disorder by looking at the symptoms, which are divided into emotional and physical. Some of the emotional symptoms are irritation from distractions during the game, constant compulsive thoughts about the game, a feeling of dissatisfaction after completion or inability to close the game, a desire for complete isolation to spend as much time as possible at the monitor, frequent forgetting about biological needs etc. The physical symptoms are migraines due to constant concentration and eye strain, poor personal hygiene, fatigue etc.

Treatment is long and exhausting because, as previously mentioned, gaming disorder is a type of drug addiction, but it is possible and probable with qualified and timely treatment. However, the complexity is in person and their awareness of the therapy necessity.

Therefore gaming disorder really exists and it is a problem for all of humanity, because in general it affects the younger generation. Addiction negatively affects the socio-psychological state of a child and an adult, stimulating complete immersion in the virtual world and forcing a person to forget about their reality.

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VIETA'S FORMULAS

In algebra, **Vieta's formulas** are a set of results that relate the coefficients of a polynomial to its roots. In particular, it states that the elementary symmetric polynomials of its roots can be easily expressed as a ratio between two of the polynomial's coefficients.

It is among the most ubiquitous results to circumvent finding a polynomial's roots in competition math and sees widespread usage in many mathematics contests.

Proof

Let all terms be defined as above. By the factor theorem, $P(x) = a_n(x - r_1)(x - r_2) \cdots (x - r_n)$. We will then prove Vieta's formulas by expanding this polynomial and comparing the resulting coefficients with the original polynomial's coefficients.

When expanding this factorization of $P(x)$, each term is generated by a series of n choices of whether to include x or the negative root $-r_i$ from every factor $(x - r_i)$. Consider all the expanded terms of the polynomial with degree $n - j$; they are formed by multiplying a choice of j negative roots, making the remaining $n - j$ choices in the product x , and finally multiplying by the constant a_n .

Note that adding together every multiplied choice of j negative roots yields $(-1)^j s_j$. Thus, when we expand $P(x)$, the coefficient of x_{n-j} is equal to $(-1)^j a_n s_j$. However, we defined the coefficient of x^{n-j} to be a_{n-j} . Thus, $(-1)^j a_n s_j = a_{n-j}$, or $s_j = (-1)^j a_{n-j} / a_n$, which completes the proof.

Vieta Root Jumping

Vieta jumping is a nickname for a particular kind of descent method that has become quite popular in higher level math olympiad number theory problems. Like other instances of descent, it occurs when you have to solve a Diophantine equation (or system of equations, congruences or inequalities) whose solutions have some recursive structure.

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HEALTH PHYSICAL EDUCATION

The high level of morbidity, its spread and the appearance of new, more complex types of diseases, the growth of child mortality and child disability are the realities of our present. Ukraine ranks 100th in the world in terms of population health. Ukraine is most concerned about the health of its children. This is the necessity of studying the discipline "Healthy Physical Culture". The term Health physical culture appeared in our country when Ukraine developed its classification of professions (standards) according to world requirements.

Physical culture and sports contribute to the development of intellectual processes - attention, accuracy of perception, memorization, reproduction, thinking, imagination, improve mental performance. Healthy, hardened, physically well-developed young men and women, as a rule, successfully perceive educational material, get less tired in school lessons, and do not miss classes due to colds.

Many years of practice have shown that physical culture also contributes to mental development, fosters valuable moral qualities - confidence, determination, will, courage and courage, the ability to overcome obstacles, a sense of collectivism, friendship.

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THE BATTLE FOR KOROSTEN (1921)

Took place during the Second Winter Campaign of the UPR army, the purpose of the campaign was to raise an all-Ukrainian uprising against the Bolshevik government. The main task of the Volyn Army Group of the Ukrainian People's Republic was to seize the city of Korosten. The capture of the city was of great political and strategic importance for the Rebel Army of the Ukrainian People's Republic. It contained a telephone, a telegraph, and a radio station, which could be used to notify and call for an anti-Bolshevik uprising on the entire Right Bank. In Korosten, there were also military warehouses, after capturing which, it was possible to dress and shoe riflemen, as well as get rich with ammunition.

The consequences of the short occupation of Korosten were more than 400 released political prisoners, the shooting of the Korosten emergency commission, the shooting of the chief of staff of the 132nd brigade, a large number of killed and 100 captured Red Army soldiers, among whom 7 political operatives and

communists were shot. On the Ukrainian side, 19 people died, including centurion Stefanyshyn; 14 people were wounded, including Colonel Klymach.

However, despite the significant losses among the Bolsheviks, the failure of the attack on Korosten had extremely negative consequences for the Rebel Army. The insurgents failed to seize an important bridgehead for raising the all-Ukrainian uprising, lost the chance to get the necessary weapons, winter clothing and shoes for the fighters. In addition, the rebel army spent from 50% to 80% of ammunition, despite the fact that a third of the fighters still remained without rifles.

After the failure, the rebels were forced to retreat, but the Red Army under the command of Hryhoriy Kotovsky caught up with them, after which the Ukrainian rebels were forced to give battle near the village of Minki. Unfortunately, in the course of this battle, the Ukrainians were defeated, the Bolsheviks offered everyone to join the ranks of the Red Army, but everyone categorically refused, as a result of which all those who disagreed were shot in the town of Bazar, this event was called the Bazar Tragedy.

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THE IMPORTANCE OF ATTRACTING CONSUMER ATTENTION TO ENTERPRISE PRODUCT

We are surrounded by a huge number of people and companies eager to get our attention. It is required by the e-mail that needs to be checked, the television programs and the countless number of sites that you need to familiarize yourself with. Each of us has too much to do and very little time to deal with it.

The main rule of marketing says: the attention span of each potential buyer is limited. To cope with all matters, much more strength is required than a person has at his/her disposal. So, consumer filters incoming information, making time for what is important to him/her. Everyone does it, including potential customers of the enterprise. To get their attention, companies must find a way to bypass the filters. And to do this, they need to be more interesting or more useful than their competitors [1].

However, the attention itself is worth nothing if people are not interested in what the company does. Companies need to attract the attention of only those potential customers who will eventually buy something, otherwise they are simply wasting time and resources. It's nice to be in the spotlight but business is about making profitable sales, not winning the popularity contest. There is nothing wrong with having a company shown on a national TV channel or posting a picture of it on a popular website. It should be mentioned that this widespread popularity fails to increase its sales. By wasting time and energy on such activities, the business is, in the meantime, reducing the share of resources that could be invested in creating real value for their customers. In such a situation, no one wins. Nonetheless, as soon as a

company attracts the attention of people who are capable of buying its product under certain conditions, the business will inevitably go uphill.

In the end, it is worth attracting the attention of potential customers but you need to act correctly because it is important for business to make a profit, not to be recognizable.

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STUDY ON HERACLEUM SOSNOWSKYI MANDEN

Heracleum sosnowskyi Manden (Sosnowsky's hogweed) - is one of the highly invasive, aggressive and most dangerous plant species in Ukraine. It originates from the Caucasus. The plant got its name thanks to the local people, who collected leaves from the plant before the peduncle appeared, for vegetable soups and borschts. And the scientific name was given after the famous researcher of the flora of the Caucasus D. I. Sosnowsky.

The plant is perennial and comes from the Apioideae (celery) family. Hogweed begins vegetation and blooms earlier than other species. It is characterized by a tall upright, ribbed, grooved stem up to 3-5 meters in height and up to 10 centimeters in thickness. Therefore, it mainly grows in well-moistened soils. It releases liquid with a pungent smell of essential oil through the upper part at the fracture of the branched root. It has petiolate leaves up to 50-60 centimeters long. The flowers are bisexual, often white-green in color, which are collected in ray umbrellas up to 40-50

centimeters in diameter. The entire *Heracleum sosnowskyi* is covered with thick hairs. Fruits are inverted ovoid, elongated up to 10-12 mm long and 8 mm high. Temperature is not an obstacle for hogweed. It can withstand not only low temperatures, but also drought, frosts down to -10 and flooding lasting 30 days. This plant is found in almost all areas: meadows, along roads, banks of reservoirs and in forest strips. It is worth noting that even *Cornus alba* (sod) does not grow around the Sosnowsky's hogweed. This is explained by the seeds of the plant, which contain essential oil substances and resins. They delay the germination of other types of plants on the surface of the soil and provide protection for the seedlings. Because of those mechanisms the plant has no natural enemies and quickly plants free areas. During ultraviolet radiation, the plant becomes active, which results in a dangerous effect, namely damage to the skin when touched and an allergic reaction.

Chemical and mechanical methods are used to control this plant. But today biological method is the most widely used. With this in mind, during the battle against this invasive species, researchers gain more knowledge, ability to investigate and eliminate the problem. But it is worth remembering that you should not touch the Sosnowsky's hogweed with your bare hands, because it can harm you. The invasive plant can spread in various ways. It adapts mainly due to wind, animals, or water currents. The seeds begin to spread. However, intensive distribution is considered to be specifically in *Heracleum*. Because as a result of the study it is compensated and characterized by high seed production. According to the latest data, up to 35 thousand viable seeds per individual plant. Therefore, it needs effective control. From this it can now be concluded that the development of a regional system of biological monitoring of the environment is necessary, it should include a full analysis of ecological features, control measures, a forecast of further spread and containment of it.

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THE PROBLEM OF PSYCHOLOGICAL ASSISTANCE TO PEOPLE IN THE MINDS OF MODERN WIKIS

The modern world is changing very fast and in order to "keep up" with it we also have to learn new things and be able to adapt to new needs and problems that arise on the way of psychological health.

Now people suffer a lot of stress because of new diseases. For example, COVID-19, due to the inability and ignorance of how to deal with this disease, people were stressed. The consequences of the pandemic include depression, insomnia, anxiety, etc. All this was influenced by quarantine due to which society was in unusual living conditions. People were forced to be in self-isolation while observing strict sanitary and hygienic standards. From the studies of various psychologists on the impact of the pandemic on human psychological health, it can be concluded that a sufficiently long isolation leads to increased anxiety.

In order to help a person cope with stress during a pandemic, there are the following options for providing PPD: First of all, safety! Take all necessary measures to protect yourself and others from infection. For example, communicate remotely (by phone or at a safe distance) or use personal protective equipment when in direct contact with people.

Know your function and what you can and cannot do. If you can, try to help people who need special assistance.

Help people identify their positive coping mechanisms and supportive people in their lives. Link to reliable sources of information. Remember that gossip is common in outbreak situations. The best way to stop gossip is for trusted people to provide accurate information in a language that others can understand. Try to connect people with their faith community or other trusted advisors in a safe way, if needed.

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VALUE ORIENTATION OF MODERN EDUCATION

Nowadays, education is a very important part of life for every person. Everyone needs development and gaining of new knowledge and skills for a successful life in today's society. Therefore, modern education faced a difficult task: to ensure a high-quality and productive learning process. For this, it is necessary to set priorities correctly.

First of all, education is one of the most important moments for children and youth, which lays the foundation for self-development and opportunities to build

their lives. Any development begins with self-awareness, one's desires and values. That is why it is necessary to learn to understand yourself and define your aspirations, while not being influenced by outsiders. As mass media is so widespread now, people are like sponges, absorb false views, stereotypical thinking and behavior. They put material needs first, and forget about more important values. So it is important to learn to combine the material and spiritual, to develop self-respect, self-realization and self-acceptance.

In addition to this, the modern world requires a large number of skills for a comfortable existence. It is necessary to be able to adapt quickly to any conditions. No less important is quick analysis and the ability to operate with the acquired knowledge. It is necessary not only to perceive ready-made information, but also to analyze, improve and enrich it. Habitual accumulation without change leads to doubts, lack of confidence in one's abilities and fear for the future.

In conclusion, the task of modern education is the development of orientations and skills that fully shape the personality. Skills that will make it possible to take judicious decisions, rely on yourself and your knowledge, act creatively and unconventionally, understand the essence of things. To develop self-confidence, a valuable attitude towards people and the world, a motive for further activity.

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STRUCTURAL COMPONENTS OF A SPORT COACH

The problem of training qualified coaching personnel for all types of sports is considered a problem of national scale. In Ukraine, as well as outside its borders, its relevance is undeniable. The essence of the problem is that, on the one hand, the literature contains a significant amount of theoretical material about the components of the pedagogical mastery of a sports coach, and on the other hand, no clear list and ranking of such components has been found specifically for coaching professions.

The relevance of the training of qualified coaching staff is determined by: – firstly, the fact that the components of a coach's professional skill in a sport determine the effectiveness of the educational and training process of athletes; – secondly, the use of information about the structure of professional skills allows to effectively improve the entire system of training of coaching personnel in general and its individual elements in particular; – thirdly, the scientific substantiation of the components of the professional mastery of a sports coach creates opportunities for reforming the entire national system of training specialists in physical culture and sports. The organizational skills of a coach at any level of sports training are absolutely necessary. The coach is the organizer of the sports training process and it is through the organization of the process that he can show his knowledge, experience, even intuition.

Otherwise, as through the organization of the process, that is, otherwise than through specific actions and deeds, the coach will not be able to show his personal qualities, which, of course, contribute or do not contribute to the effectiveness of his work. Positive qualities of a coach most often include: - kindness and attention to students, sociability; - justice, honesty; - principledness, diligence, sacrifice; - professional talent, broad outlook, etc. General signs of a coach's professionalism

are: - possession of special knowledge about the purpose, content, object and means of activity; - possession of special skills to carry out activities at all stages of an athlete's training; - special properties of a person and character traits that allow to carry out activities and achieve a given result. The effectiveness of the trainer's work depends on economic, social, organizational, scientific, situational and other factors. It was found that the leading components of the structure of professional the skills of a sports coach are a complex of integral, general and professional competences namely: knowledge, ability, skills, communication, autonomy and responsibility.

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PREVENTION OF BULLYING

The problem of school bullying in the world has been thoroughly researched since the 1980s in contrast to Ukrainian scientists who paid attention to it issue only in the last decade (the first research in Ukraine began in 2005).

This is primarily related to the last at times bullying among Ukrainian schoolchildren has acquired significant distribution (or perhaps society often becomes a witness, in particular, as a result getting onto the Internet videos where children beat each other).

Disappointing indicators make it possible to think about a problem for everyone who can contribute to it solution, - parents, teaching staff, human rights defenders, psychologists and, of course, managers who form policy in the field of education.

At the beginning of 2019 a definition of the concept appeared in the legal field – bullying, which was introduced in the so-called anti-bullying legislation. Conditionally, this law contains two parts – punishment and prevention (Pazychuk, 2019). In December 2018, the Law on anti-bullying not only provided the definition of the concept of bullying, but it also indicated administrative responsibility for him (Article 1734 of the Code of Ukraine on Administrative Offenses).

The Law defines bullying (bullying, from Eng. bully) as actions (actions or inaction) of educational participants the process of psychological, physical, economic, sexual violence, in particular with the use of electronic communications, which is committed against a minor or a minor person and (or) such a person in relation to other participants of educational process, as a result of which there could be mental or physical harm caused to the health of the victim.

Counteraction mechanisms are also defined in the Law, in particular, education is entrusted with the function of control over implementation of the plan of measures aimed at prevention and countering of bullying; to the managereducational institution – approval and publication on their websites of the action plan regarding prevention and countering of bullying, as well as ensuring open access to the rules of the behavior of the learner in the educational institution.

At the same time, the Law provides for the submission procedure and consideration of statements about cases of bullying from education seekers, their parents and other people; the procedure for issuing a decision on conducting an investigation. In addition, according to changes to Art. 73 of the Law of Ukraine "On Education" [1, p. 18-22].

Such measures are completely logical and necessary by the state's reaction to the prevention of extremism a dangerous social phenomenon.

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METALLIC BOND

A metallic bond is a type of chemical bond in which the valence electrons of atoms delocalize and begin to interact with the atomic bases of the entire body. All metals have similar properties: they have a characteristic metallic luster high ductility good electrical and thermal conductivity. These properties of metals are a type of chemical bond called metallic.

The peculiarity of the atoms of metallic elements is a small number of electrons at the outer level and relatively large radii. Therefore atoms of metallic elements unlike atoms of non-metallic elements easily lose external electrons and turn into positive ions. Metallic bonding is characteristic of pure metals and mixtures of different metals – alloys (bronze, steel, cast iron, brass, etc.) if they are in a solid or liquid state.

Unlike covalent and ionic compounds in metals a small number of electrons simultaneously binds a large number of atomic nuclei. The combination of valence electrons makes a metallic bond somewhat reminiscent of a covalent bond. However, in metals, shared electrons do not belong to individual pairs of atoms, they are completely delocalized. This explains the lack of spatial directionality and saturation of the metallic bond. The delocalization of valence electrons is a consequence of the multicenter nature of the metallic bond and the reason for the high electrical and thermal conductivity of metals.

Therefore a metallic bond is a multicenter chemical bond with a deficit of electrons and is based on the generalization of the outer electrons of atoms. Therefore it is characteristic only for the condensed state of matter. In the gaseous state the atoms of all substances including metals are connected to each other only by a covalent bond.

It was a small story however what is a metallic connection and what is characteristic of it. Metals surround people everywhere they are present in industry and in everyday life. Therefore their connections and the metals themselves are an important link in nature and human life.

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FORMATION AND LIQUIDATION OF THE OLEV REPUBLIC'

The history of Ukraine has many pages of the struggle of the Ukrainian people for freedom and statehood. Each moment of the story is interesting, educational and inspiring in its own way. As a resident of the city of Olevsk, I would like to tell you about one of the moments of Ukrainian history - the Republic of Olevsk.

The Republic of Olev is a local Ukrainian state entity subordinated to the Government of the Ukrainian People's Republic in Polissia from August 21 to November 15, 1941 during the Second World War.

With the beginning of the war between Germany and the USSR, the advancing troops of the Wehrmacht bypassed the Polish lowland and advanced eastwards by

forced march. At that time, in the deep rear of the Germans in Polissia, the local organs of the Soviet government continued to function, and groups of Bolshevik partisans, created from surrounded and defeated units of the Red Army, were active. The soldiers of Poliska Sich, under the command of Ataman T. Borovets, supported by the local population, came against these "rudiments".

The initiator of the creation of the Olev Republic was Taras Borovets himself and his entourage.

As soon as the Sichovs occupied the city of Olevsk, it became the center of the republic and the seat of the Main Command of Poliska Sich.

The Olev Republic was a short-lived but real experience of state activity.

Thanks to the activities of Peter Smorodskyi (the economic and military chief of Olevsk) and the energetic actions of the citizens of Polissia, it was possible to quickly rebuild the industrial area, reform the collective farms (tillage of the land was carried out collectively, but ownership of the land was created individually), restore research and agricultural centers and seed funds, etc. Dozens of new Ukrainian newspapers appeared on the territory of the Olev Republic, the most popular of which, "Haydamaka", spread throughout Volyn, Podillia, and Kyiv region. Free church and religious life was restored in the "republic", school reform began.

The Republic of Olev recognized the authority of the State Center of the Ukrainian People's Republic in Emigration in Warsaw, headed by Chief Otaman Andrii Livytskyi, whose representative was considered to be the Otaman of Poliska Sich T. Borovets. Formally, no directives, instructions or orders came to Olevsk from the government-in-exile, and therefore the "republic" lived a completely autonomous life.

Unfortunately, over time, such a local state entity came under the supervision of the German occupation regime, which demanded the dissolution of Polissia Sich and the transfer of full control over the territory of Polissia to the Reichskommissariat.

Under these circumstances, realizing that he and the "Sichovites" were in danger, Taras Bulba-Borovets issued an order on November 15, 1941 to dissolve "Polyska Sich".

But the history of the Olev Republic and its inhabitants did not end there. All Ukrainians fought against the occupation regime for the sake of their will. There were also sad pages of this struggle in the form of fratricide or Nazi revenge. But this did not break the spirit of Polissia residents.

It was on the example of the Olev Republic that I really wanted to show the desire of the Ukrainian people to fight for Independence and build their own state.

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PYTHON PROGRAMMING

Python is one of the most used languages in Data Science. Machine learning algorithms and analytical programs are written on it. With its help, data storage and cloud services are served. The name "Python" is associated with the famous British comedy show "Monty Python`s Flying Circus", a big fan of which the creator of the language was and which at one time gave a strong impetus to the development of the comedy genre in the West.

Python owes its appearance to the Dutch programmer Guido Van Rossum. In the late 80s, Guido formed the concept of this programming language, and in February 1991

he published the first version - Python 0.9.0 in Amsterdam (Netherlands), and in January 1994 - Python 1.0. Originally, Python was conceived as a descendant of the ABC language, intended for teaching programming. This is a rather important fact in the history of Python, since it was he who put the brevity and simplicity of the syntax in the first place for the future Python, which the vast majority of programming languages of that time could not boast of.

To date, 2 more major versions of Python have been released, as well as a large number of intermediate ones.

The language began to develop rapidly, as a large number of people appeared who were interested in and understood the development of programming languages. At first it was a fairly simple language, a small interpreter, a small number of functions, object-oriented programming was absent, but very quickly everything it appeared and to this day its development continues and new versions are released, where each subsequent one has several significant differences from the previous one.

Python interpreters exist for all possible platforms: Windows. UNIX, etc. All of them are distributed free of charge.

Python is one of the top ten most popular languages programming. You can find a large number of applications, written in Python, for example:

- command line on the monitor or in the terminal window;
- user interfaces, including network;
- web applications;
- clouds;
- applications for mobile devices;
- applications for built-in devices;
- intended for working with xml/html files;
- applications are designed to work with http requests;
- intended for work with images, audio and video files;

Python is easy to use and at the same time a complete programming language that provides many more tools for structuring and maintaining large programs than shell. On the other hand, it handles errors better than C and, being a

very high-level language, has built-in high-level data types such as flexible arrays and dictionaries, which are time-consuming to implement efficiently in C.

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USE OF ANIMATION ELEMENTS IN EDUCATION

In our world, it is becoming more and more popular to make animations, because it is profitable and with this skill you can quickly find a good job. And since animation (including cartoons, films, video games, etc.) does not stand still, it will be popular in 20 years.

Through the use of visual representations, teachers easily communicate the information they want to students. Thus, it simplifies the study of complex statements and makes their presentation clearer. Also, it's a very interesting approach to your students, because they not only learn something exciting, but also enjoy this way of learning. That is why animation is widespread in education and is famous for its popularity in the world.

The purpose of this article is to analyze the way information is presented through animation.

Thanks to visual images, what they represent is deposited in our head and remembered better than ordinary words. You can call it one of the classic forms of learning, where students not only listen, but also participate in the process.

As mentioned earlier, thanks to images, this or that information is better remembered and perceived. The better the image, the better the understanding of the material presented. One of the advantages is that such a method has a greater impact than a simple text or words of a teacher.

In 1969, the results of Dale's research showed something major:

When spoken/heard, recall with a test group of students after 3 hours was 25% and after 3 days was 10-20%.

When written/read, recall after 3 hours was 72% and after 3 days was 10%.

But visual information recall was 80% after 3 hours and an amazing 65% after 3 days.[1]

Thus, it can be emphasized that animation elements in training materials give the best results.

The journal «Computer & Education» published an analysis of experimental studies comparing the effects of animated and static graphic displays in the context of knowledge acquisition.

Of the 50 articles and 61 studies reviewed, an additional 140 comparisons of visual and graphical visualizations were made using random effects mockups in educational multimedia materials.

As a result, the overall positive impact of animation with a graph was deduced. with the magnitude of the Hedges g -effect.[2]

In conclusion to all of the above, we can say that animation turned out to be a lifeline in the education system and the beginning of a new era of teaching. It simplifies the learning process and keeps the student interested in learning. If you learn how to use it correctly in the presentation of any material, then you can get the maximum result from the participants, and also be sure that this material will be imprinted on them for a long time.

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WORLD CONGRESS OF UKRAINIANS IN THE PROCESS OF INTERNATIONAL CONSOLIDATION OF WORLD UKRAINIANS

The study of certain aspects of the international consolidation of world Ukrainians is important in view of the fact that due to historical, cultural and socio-political factors, the international Ukrainian diaspora was formed on the international arena. Centers of the Ukrainian population were represented in most countries of the world, among which we can highlight: Poland, Canada and the USA. A huge flow of Ukrainians was scattered all over the world and needed a certain platform to unite them. The World Congress of Ukrainians became just such a platform.

The activities of the first World Congress of Ukrainians took place in 1967 in New York, undoubtedly left a deep mark on the Ukrainian diaspora and was an important stage of the Ukrainian people's struggle for independence. The World Congress of Ukrainians began its activities with thoroughly prepared topics for discussion, abandoned formal approaches and empty declarations to solve urgent

issues [5, p. 399]. It is worth noting that the governing bodies of the SCU were: the Secretariat, the Congress and the Control Commission [1, p. 497].

1003 delegates from 17 countries of the world took part in the Congress, in particular, such countries as: Austria, Argentina, Venezuela, Canada, France and the USA can be singled out [3, p. 19]. In the work, 230 organizations represented their achievements, including the problems of social, religious, economic and cultural-educational life of the Ukrainian diaspora [4, p. 209].

The goals of SCU: to represent the interests of Ukrainian diasporas from all over the world; To preserve the national Ukrainian identity, spirituality, language, and culture of Ukrainians; To coordinate the activities of the Ukrainian organizations that are members of the SCU according to the areas of activity determined by the congress; To mobilize the public opinion of fellow citizens in the countries where Ukrainians live to strengthen favorable attitudes towards Ukraine and its state, spiritual and economic development; Protect the rights of Ukrainians (regardless of their place of residence) in accordance with the Universal Declaration of Human Rights.

SUK helps the development of the public life of Ukrainians in the countries where they live, and also protects the rights of Ukrainians in accordance with the Declaration of Human Rights, creates and strengthens a positive attitude towards them [2, p. 46].

Summarizing, it is worth noting that one of the main tasks of the Ukrainian state at the present stage is the formation of national identity. For its active implementation, it is necessary to intensify the efforts of non-governmental organizations and state structures on issues of interethnic relations. Having analyzed the key areas of activity of the SCU, it is possible to highlight its huge role in the processes of international consolidation of world Ukrainians. The organization is noted for its active public activity and protection of the rights, support and organization of Ukrainians.

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THE DIFFICULTIES OF LITERARY TRANSLATION

Literary translation is one of the most important parts of intercultural interaction. The translator must include all efforts to compensate for the reader's lack of understanding of the original language, but at the same time not to make unnecessary changes to the text of the original work. Many researchers consider that the best translations should be performed not so much by selecting lexical and syntactic equivalents as by searching for artistic correlations to which linguistic ones should be subordinated. Others define artistic translation, as the reproduction of a text by means of another language [1]. In this connection, the question of accuracy,

completeness, and adequacy of literary translation arises. For most of them the language is the main difficulty.

However, I consider cultural aspect the hardest part in translation. By the term "cultural elements" we understand such elements of the text that are connected in a special way with the culture of a given country. Cultural elements defined in this way include mostly proper names, customs and habits, quotations and allusions closely related to the literature of a given country, allusions to its history and to other spheres of culture such as music, film, painting etc. The translator as a participant and mediator is part of the culture. In the process of communication, it acts as an interpreter of symbols, signs and cultural codes. In this case, it's not enough just to know about the culture, but it's vital to live in this culture.

But how is it possible to explain the receiver all the cultural traditions? The debates around this question probably will never end. One of the options is to find the most similar traditions and try to remake the original parts of the text [2]. It's clear, that it will change the image of some situations, but will help the readers to become more emotionally-involved as they will definitely understand the cultural meaning. They say the translation should give the reader the same image, the same impression that he, knowing the language of the original, would get from reading the original work. But what if the reader's culture is totally different from the author's one...

To sum up, literary translation involves the talent in creative writing and knowledge of the culture. I believe it can be considered art, because the aesthetic effect of the translated text is achieved through long days of work, constant tries to get better results and a lot of life experience.

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ORGANIZATIONAL FORMS OF HOTEL COMPLEX MANAGEMENT

Key words: management, hotel management, hospitality, investments.

Abstract: I researched the current state and prospects of hotel business development in Ukraine; the essence of the concept of management of hotel complexes in comparison with other types of doing business, advantages; formation and dissemination of management of hotel enterprises in the Ukrainian market of this industry.

The current state and prospects of development of the hotel industry of Ukraine should be considered as one of the promising activities, even despite the difficult economic conditions due to the pandemic. The development of tourism, international economic relations and mobility of labor resources allows us to assert the further development of accommodation networks in the world and in Ukraine.

It is well known that investors are always interested in finding effective objects for investment. Thus, the hotel business is becoming a very attractive industry for investment in the development of the tourism industry. In this investment sector, several areas of investment are considered: investing in the construction of new and acquisition of already built hotels, hotel reconstruction; investing in the purchase of individual hotel rooms and apartments; investing in hotel management, modern technology, staff training, etc.; purchase of a well-known brand (franchise).

Solving the problem of attracting investment, it is necessary to conduct a full analysis of the use of investment funds and profits. Return on investment is possible only when the funds received are used professionally. To do this, it is necessary to understand how and what investment funds need to be attracted, for what purpose these funds are attracted, what goals and objectives are pursued and what criteria to use in assessing the feasibility of investment. getting a return on investment. We

will consider options for solving these issues for the hotel business. It should be noted that the activities of both domestic and foreign companies in the hotel business in Ukraine are mainly divided into three forms: management; franchising; direct investment.

I would like to focus on such a method of organizing the hotel business as the management of hotel complexes, institutions.

Foreign hotel operators do not seek to invest in Ukrainian business. It is much more profitable for them to manage someone else's property and "rent" their brand. At the same time, most foreigners prefer to manage the finished object, earning additional income during consultations at the pre-project, design, construction stages.

Management contracts help to expand hotel chains without attracting large investments. Foreign operators are usually not part of the business, but provide competent hotel management, which is very important, especially for exclusive, expensive hotels. In management, the operator's risk is insignificant, as its activities are not related to investment activity at all or its volume is minimal. All losses from the main activity, as well as construction costs, are borne by the hotel owner.

The essence of the phenomenon of hotel management. The structure of hotel companies and the hospitality industry is different from most sectors of the economy, and some managers in this area do not fully understand how it all works. Hotel management is not an easy task, and in order to do it well, you need to have a variety of skills and resources. To maximize the productivity, profitability and benefits of the owner, many hotels use specialized organizations to manage various operational aspects. Typically, hotels belong to one of four forms of ownership and management:

1) Privately owned and operated: For the owner, this model requires the most hands-on hotel operational work. At privately owned and operated hotels, the owner takes the lead on all aspects of the business: hiring staff, maintaining the physical asset, running a hotel marketing strategy, and more. The owner could be an individual or an ownership group.

2) Leased: Unlike at privately owned and operated hotels, the owners of leased hotels lease the physical asset to a different company who handles all aspects of the operation. The owner simply collects rent for the building and has no involvement in the hotel side.

3) Franchised: Owners who want a more hands-on approach and don't want to turn their physical asset over to someone else to operate might opt for the franchise model. Franchisors sign agreements with hotel brands for access to benefits (or limitations, depending on how you look at them) like brand standards, marketing power, reservation systems, and design guidelines. Franchisors often run the day-to-day operations themselves, like hiring employees and handling payroll, and they pay a franchise fee to the brand. Popular hotel brand franchises include Hampton, Holiday Inn Express, and Red Roof Inn.

4) Managed: At a managed hotel, the hotel owner signs a contract with a management company to take operational responsibilities off their plate. Unlike the franchise model, the management company handles everything related to day-to-day operations - even staffing, payroll, and marketing. Some managed hotels are branded, and the management company is then responsible for upholding brand standards. The owner typically signs the contract with the brand, though owners often include their management company in rebranding discussions. These management companies focus on growing RevPAR, NOI and EBITDA as they are paid a % of revenue and often receive bonuses based on hotel profitability. 'Corporate' hoteliers tend to focus on more analytical tasks like SWOT Analysis and setting SMART Goals while 'on property' workers focus on tactics, day-to-day management and service delivery.

Many hotels around the world have separate ownership and management in order to maximize the efficiency of both components. Owners can focus on real estate, and management companies can focus on day-to-day operations. In particular, large hotel companies such as Hilton and Marriott do not usually run their own hotels.

Here are the benefits of a hotel management company, how management companies manage hotels on behalf of the owner and their functions. Depending on the specifics of the object, the management company can:

- manage all operational departments, such as reception, housekeeping, sales, food and others;
- manage relationships with suppliers and issue invoices;
- implement pricing policy in the institution and conduct promotions;
- provide day-to-day hotel services and make recommendations on capital expenditures;
- develop budgets and prepare financial statements for owners;
- develop and maintain the hotel's website on the Internet (including work with guest feedback and service recommendations, etc.) and implement marketing strategies;
- coordinate repairs, etc.

If the hotel is branded, then some of these responsibilities are performed by the brand. Brands typically provide marketing support, corporate customer service standards, and furniture and decor recommendations.

A management company is not normally involved in making major decisions regarding physical assets, regardless of brand affiliation. The hotel owner or group of owners (often a real estate investment group) decides when to buy or sell real estate. Although owners pay management companies for their services, using the services of management companies can save money in the long run. Management companies are experts in the hotel business, so they can often carry out day-to-day operations more efficiently than private owners / managers - especially if the owner has little experience in the hotel business.

Owners pay considerable attention to the structure and order of remuneration, concluding a contract with the management company. Management companies may receive an incentive fee as part of the income of the hotel complex, the base fee and / or a percentage of gross income. The remuneration structure of the management company may differ at different facilities, depending on the type of hotel, the

services provided by the management company and the goals of the owner. When management companies receive a reward that reflects the efficiency of the hotel, they are interested in making the hotel work as efficiently as possible.

Conclusion. Thus, the hotel industry in Ukraine faces many problems, the main of which is the uniqueness of technological processes of guest service and the involvement of specialists in the management of hotel complexes. This creates the conditions for a comprehensive approach to effective management of accommodation. And one of the most effective forms of effective activity of accommodation establishments is the method of their management which is rather widespread in world practice of management of hotel complexes and becomes widespread in Ukraine.

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CORPORATE ADVERTISING

Corporate advertising is defined as a process of marketing communication between the manufacturer with the intermediary and consumers, as an element of the organization of sales of goods or as an information process and the process of convincing the consumer.

It should be mentioned that corporate advertising, public information about the manufacturer, goods and services and the intermediaries through artistic, technical and psychological techniques to stimulate demand for goods and services are provided by the company to satisfy the consumers' needs for the goods and services [1].

Furthermore, corporate advertising by an object is divided into classic mass advertising of goods, prestigious brand advertising and image advertising of the enterprise.

Corporate advertising should impress the consumers that the goods entering or already present on the market have certain competitive advantages over the goods of other manufacturers. Therefore, the importance of corporate advertising is best revealed if the essence of corporate advertising is viewed in terms of the law of overproduction [2].

The modern economy tends to produce more goods and services than the market requires. Marketers should create advertisements that reveal as many as possible alternatives for consumers. It creates favorable conditions for competition in the market and allows you to transfer the part of the cost to the development of a new product.

Thus, corporate advertising has become a factor of competition no less important than gaining an advantage in technical innovation and reducing costs.

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PHYSICAL CULTURE AND SPORTS IN THE SYSTEM OF UNIVERSAL VALUES

According to Article 1 of the Law of Ukraine "On Sports Culture and Sports," sports culture is "an integral part of the general culture of society aimed at promoting health and personal development." Sport is an increase in social and professional activity of people, satisfaction of their moral, aesthetic and creative needs, an important need for mutual communication, an important means of developing friendly relations between people and strengthening peace.

The actual goal of harmonious (comprehensive) personality development is a product of the history of human development. But it is only at a certain stage of historical development that the individual obtains the conditions for his realization. In order to be able to participate in all fields of activity (professional, public, sports, arts, etc.), a well-rounded development is required. But to this end, it is necessary to develop a personality structure, so that it can be communicative, able to transform artistic behavior, and form a value orientation. This is possible given the diversity of content, forms and methods of human behavior and their optimal combination in the process of cultural development.

In the process of cultural development, a person consistently moves in three directions. First, it absorbs culture and becomes the object of its influence. In other words, under the influence of culture, people's personality is formed and their abilities are developed.

Secondly, in the process of creative activity, one creates new cultural values, which in this case act as objects of cultural creativity (finding new ways, means, rational physical education methods, etc.).

Finally, the third aspect of cultural development is that culture is integrated into the essence of human beings, and human beings, as the concrete bearer of

cultural values in the cultural environment, unify the universality and characteristics of culture into a whole and an individual. Bring the foundations of personal life experience, level of knowledge, attitudes, etc. into the culture.

Physical activity has both material and spiritual manifestations. With complex means and methods affecting one's biological realm, sports culture inevitably affects one's intellectual, emotional and spiritual realms due to the unity and interdependence of one's material and spiritual functions.

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PROBABILITY THEORY

Is a branch of mathematics that studies the regularities of random phenomena: random events, random variables, their properties and operations on them.

For a long time, probability theory did not have a clear definition, which was developed only in 1929. The emergence of probability theory as a science is attributed to the Middle Ages and the first attempts to mathematical analysis of games of chance (crawler, dice, roulette). Seventeenth-century French mathematicians Blaise Pascal and Pierre Fermat, researching the prediction of winnings in games of chance, discovered the first probabilistic patterns that arise when rolling the dice.

Probability theory, as a science, originated with the first attempts at mathematical analysis of games of chance in the mid-17th century. To understand the essence of the conceptual apparatus and the subject of probability theory, it is worth analyzing the history of its development. Historians distinguish several periods.

The first period - until the first half of the XVII century. This period is characterized by the development of combinatorial methods. However, no thematic concept or category, no general method of probability theory has yet been noted.

Period II - the second half of the XVII century. During this period, significant contributions to the development of probability theory were made by B. Pascal, P. Fermat and H. Heigens, who introduced fundamental concepts such as the numerical measure of the probability of an event and the mathematical expectation of a random event. variable, established the basic theorems of addition and multiplication of probabilities. B. Pascal and P. Fermat are considered the founders of probability theory.

The 3rd period - the 18th century, associated with works with a systematic exposition of the theory of probability. The first of them was the book "The Art of Hypotheses" by J. Bernoulli (1713), in which the author offered a classical definition of probability, introduced the concept of the probability of a random variable like a number between 0 and 1, the rules for calculating the probability of complex events and provided the first version of the "law of large numbers".

Period IV - XIXth century. At that time, P. Laplace, K. Gauss and S. Poisson continued the research of J. Bernoulli. The concept of probability is developed for continuous random variables. Probability methods are widely used in various applied sciences, including applied statistics.

The 5th period - 20th century - to the present day is associated with the development of K. Pearson's mathematical statistics algorithm, which is used for applied measurement analysis, hypothesis testing and decision making. A. Kolmogorov provided the classical axiomatics of probability theory.

Information theory and the theory of random processes are new fields of application of probability theory.

Today, probability theory is a mathematical science that studies patterns of massive random variables and has a wide range of applications.

Probability theory originated as a science from the belief that certain regularities underlie mass random events. Probability theory studies these patterns.

Basic concepts of the theory

Probability is the degree to which an event will occur. When the reasons why a possible event actually occurs outweigh the opposing reasons, that event is called probable, otherwise it is called improbable or impossible.

A random variable is a value that, as a result of a test, can acquire one or another value, and it is not known in advance which it will be. For example: the number per fire station per day, the number of shots with 10 shots and. etc

Random variables can be divided into two categories.

1. A discrete random variable. This set can be finite or infinite. For example, the number of shots before the first hit on the target is a discrete random value, so this value can acquire an infinite, albeit countable, number of values.

2. A continuous random variable. Can take any value from a finite or infinite interval. The number of possible values of a continuous random variable is infinite.

Probability space is a concept introduced by AN Kolmogorov in the 30s of the 20th century to formalize the concept of probability, which gave rise to the rapid development of probability theory as a rigorous mathematical discipline.

Theorem. The probability of the sum of two incompatible events: $P(A + B) = P(A) + P(B)$.

The probability that the sum of incompatible events forms a complete group is 1

The conditional probability $P_B(A)$ is the probability of event A, calculated assuming that event B has occurred

Theorem. Probability of simultaneous occurrence of two independent events: $P(AB) = P(A) \cdot P(B)$.

For several events: $P(A_1 A_2 \dots A_n) = P(A_1) \cdot P(A_2) \dots P(A_n)$.

Theorem. The probability of occurrence of at least one of the two simultaneous events: $P(A + B) = P(A) + P(B) - P(AB)$.

Theorem. If $A = A_1 + A_2 + \dots + A_n$, where A_1, A_2, \dots, A_n are independent events, then $P(A) = 1 - (1 - P(A_1))(1 - P(A_2)) \dots (1 - P(A_n))$ the probability that at least one of the independent events A will occur.

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IN WHAT CASES SHOULD YOU GO TO A LOGOPEDIST?

In logopedics, there is a rule: the sooner you start engaging with the child, the more effective and faster the correction will be. Apparently, in the life of almost every family sooner or later comes a moment when the question arises: "Is everything okay with the speech of my child?" Check yourself out:

1. The child at an early age does not babble (i.e. does not make funny sounds of the type of "kchh, akhhh, agha", does not repeat the compositions of "bu-bu-bu, ta-ta-ta, ma-ma..."). You should go to the logoped.

2. The child at 1.5-2,5 years practically does not have complete, understandable words such as "mama", "baby", "cat", "drink", "go", and speaks "your" language quite a lot and actively. In this case, go to the logopedist immediately, without waiting for the age of three.

3. A child at 1.5-3 years "understands everything, and does not want to speak", communicates with gestures and "mocking." Don't wait until she "speaks" herself. It is better to be safe and make sure that this is not a delay in speech development against the background of certain brain dysfunctions.

4. A child at 4-5 years of age softens all the sounds. Probably, this is not "empty", but a severe speech violation.

5. The child cracks, whispers, that is, distorts sounds. Contact a logopedist at any age, not paying attention to age norms of sound appearance. After all, these norms indicate the absence or replacement of sounds, and distortion is always a speech disorder and it will not correct itself.

6. The child went to school, he began to have problems with reading and writing. In this case, after the second quarter of education, consult a specialist for advice: the child has logopedic or psychological problems.

7. If a child after an injury (fall, beating, "light brain shock") began to have problems with speech (passes of sounds, compositions), then it is worth to conduct an examination not only with a logopedist, but also with a neurologist. These may be symptoms of severe cerebral injury and aphasia.

How do I know if my child needs logopedic help? To whom should I turn? At what age should I wait? What to pay attention to? Let us try to answer these questions in order. Unfortunately, we often have to hear from parents of older preschool children who have severe speech disorders about what once a logopedist said to them: "Until five years old you will not speak, come." And reassured parents wait, not taking the necessary measures, thus wasting precious time. In order to prevent such situations, parents need to take into account some patterns of speech development of children, which should be familiarized with.

It should be remembered that the guarantee of the correct speech of the child is not only sound. After all, it is only one of the components of the speech system along with its constituent structure, lexico-grammatic structure, phonetic perception, connected speech. It is important to know that for each age category of children there are their own patterns of speech development. Thus, by the end of the first year of life, the baby begins to speak the first simple words, which consist of two identical open compositions ("ma-ma").

By the age of one and a half, the child continues to accumulate its active vocabulary, the first vocabulary skills (mother, mother, etc.) are formed.

By the age of two, a child has a phrase, which is a prerequisite for the development of connected speech. The phrase mostly consists of two simple words (“mama, give”). Sounds of early ontogenesis.

Younger preschool age is the period of childhood vocabulary, when the child begins to actively use suffixes and prefixes, often incorrectly, which is the absolute norm at this age. Add hard, whispering sounds, soft sound "l", the first simple adjectives appear.

By the beginning of the middle preschool age there are whispering sounds. During this period of development of the speech system, the child speaks the first sentences of three to four words. The sentences become more complete, the child learns the first little poems.

By the older preschool age, the sound culture of speech is normally fully mastered. The future schoolchild builds unfolded phrases, has translation skills, pronounces complex words and uses lexical and grammar categories correctly.

If at some stage of the development of a child you are disturbed by something, you doubt that her speech does not develop according to age, then we recommend that you come for a consultation with a logopedist. There you will get more detailed information about whether your child’s speech meets age norms, and you will also be provided with timely logopedic help.

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VARIABLE REPLACEMENT METHOD (SUBSTITUTION METHOD)

Often in student practice there are integrals that cannot be reduced in a simple way according to basic formulas. With the introduction of a new independent variable, in such cases, it is possible to transform the integral expression $f(x)dx$. This allows you to reduce the integral to a tabular form or to one whose method of calculation can be known. Changing the variable of integration is the basis of a method called the method of substitution. The independent variable is replaced by the formula $x=\phi(t)$, where $\phi(t)$ is a differentiated function of t . After that they find $dx=\phi'(t)dt$ and integral $\int f(x)dx$ transform to look $\int f(\phi'(t)) \phi'(t)dt = \int F(t)dt$

If the resulting integral with the new integration variable t is found, then by transforming the result in the reverse direction to the variable x , using the dependence $x=\phi(t)$, find the expression of the given integral.

At first glance, the above formulations of the method do not look as simple as desired. But believe me, behind this method are not such difficult mathematical transformations. After considering the examples below and practicing on others, you will succeed. If not, send difficult examples to us, and we will try to solve them and publish them in the next articles. So let's move on to the examples.

Example

Before reading the given answers, you should familiarize yourself at least frequently with the theory of integrals. Only then will the given information be useful and instructive for you.

We choose for the new variable t such an expression that allows us to get rid of the root in the denominator

Applying this to the integral, we get:

It remains not to forget to substitute the substitution made at the beginning in the last expression

It is worth noting that there is no single variable replacement method. Everyone chooses a replacement as experience and practice suggest. For this example, the variable t can be taken as a whole denominator. Let's do this and see how much the computational complexity changes.

We replace the variables in the integral and calculate it

You may have noticed that after the second change of variables, the integral differs from the first change by a constant that is equal to 3. This is not an error, since unsigned integrals can differ by a constant.

As you can see, both substitutions of variables are effective in this case.

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ДЛЯ НОТАТОК

Наукове видання

**Професійна іншомовна підготовка в умовах глобальних
комунікативних потреб**

Матеріали VII Міжнародної науково-практичної конференції для
студентів немовних спеціальностей

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