Ministry of Education and Science of Ukraine
Zhytomyr Polytechnic State University
Zhytomyr Ivan Franko State University
Zhytomyr S. P. Koroliov Military Institute
Zhytomyr Medical Institute
Khmelnytsky National University

“Current Trends in Young Scientists’ Research”

VIII All Ukrainian Scientific and Practical Conference

Book of Papers

April 22, 2021

Zhytomyr

VIII All Ukrainian Scientific and Practical Conference
"Current Trends in Young Scientists' Research"

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Session work №1

CURRENT RESEARCH IN THE FIELD OF HUMANITIES

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USING VIDEO MATERIALS IN THE LESSONS AT THE KINDERGARTEN

Learning any language requires some effort and perseverance. When people learn a language at a conscious age, they understand why they need it and follow their specific goals. But working with children at the kindergarten and methods of learning the language at such an early age have their nuances. Consider a few of them. Children's attention is not stable and long-lasting.

To interest the child it is necessary to select interesting and bright material. The educator should always be in a good mood and leave all the negative energy behind the door at the entrance to the kindergarten, choose a personal approach to each child, pay attention to the child's capabilities (someone understands everything at once, someone needs to be explained several times). But the most important thing is to be patient and to understand that to get the desired result he or she need put effort and time. If these nuances are taken into account, educators will be able to get the desired result.

Among these nuances I would like to mention the selection of interesting and bright material for the lesson. We believe it solves many problems in learning a new material. Many researchers have worked on this issue, in particular, Daniil Ozerny, a member of the Ukrainian branch of the International Association of Teachers of English as a Foreign Language, a qualified TKT Cambridge ESOL, the International Community of English Linguistics, the Federal Association for Information Resource Management (USA) [1]. On his forum, he has a series of articles in which he talks about the most effective methods of learning English for children. Despite his young age, he is the author of books on the English language "Chemistry in English" which Daniel wrote at the age of 16. Such young researchers and the younger generation are best prepared for changes in the education system and the introduction of new methods and forms of education. That is why, the aim of our study is to find out new ways to help the educator to teach the child the English language.

It is not surprising for a new generation to use a phone or other gadgets and be involved in the introduction of new technologies and the development of science. Especially, we have realized this in the time of quarantine. Most people during this period spend the time for developing and learning languages, chiefly English. Moreover, various webinars and video tutorials help many people to improve their knowledge or learn some new materials.

Therefore, videos for learning the language that are designed for children are easily to find on any topic. We know that children like to watch cartoons. So, to make learning interesting we use vivid videos at the lessons of English at the kindergarten. Furthermore, cartoons on a developmental topic are extremely effective in this case.

YouTube video hosting has many channels for learning English with children of early age with the help of interesting, funny and bright videos. Observing children while using such videos in class, we can conclude that children's attention is stable. Most videos are in the form of songs and the words are sung. Children like to sing and move to music. We have selected the best YouTube channels for learning English with children at the kindergarten:

- English Singsing;
- ChuChu TV Nursery Rhymes & Kids Songs;
- Dream English Kids;
- Super Simple Songs - Kids Songs;
- The Singing Walrus - English Songs For Kids;
- Pinkfong! Kids' Songs & Stories;
- TheLearningStation - Kids Songs and Nursery Rhymes.

If the educator has the ability and creativity, he or she can even create videos for the lesson.

To conclude, the use of videos in English classes is effective and interesting for children at the kindergarten. They help to learn new materials and identify other talents of children, like singing, dancing, or drawing.

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PROFESSIONAL TRAINING OF PROSPECTIVE OFFICERS OF THE ARMED FORCES OF UKRAINE BY MEANS OF DISTANCE LEARNING IN QUARANTINE CONDITIONS

Today, the whole world is in the conditions of strict quarantine measures. Learning in isolation has become a demand for all participants of the educational process. Quarantine, caused by COVID-19, has become a time of innovation and experimentation in Ukrainian higher education. The introduction of quarantine and the need to continue the educational process using distance learning tools have become a real challenge for higher education institutions. However, it should be noted that some universities had successfully practiced distance education before quarantine was introducted.

The purpose of the article was to analyze the paculiarities of the professional training of prospective officers of the Armed Forces of Ukraine by means of distance learning in quarantine conditions.

Having conducted a thorough analysis of the scientific literature, distance learning can be defined as a new, specific form of learning, based on the independent work of students or cadets and the widespread use of modern information and telecommunications technologies that allow learning remotely.

It should be noted that in traditional learning the interpreter of knowledge is the teacher, while in distance learning another information model is used, according to which the cadet becomes the interpreter of knowledge, and the teacher acts as a consultant and coordinator of the learning process. The principle of self-educational activity becomes crucial and determines the use of a search approach in the development of process-oriented information model of distance learning, which provides: immersion of cadets who are ready for independent cognitive activity in an active educational environment "human-computer"; transition from verbal-logical, analytical thinking to synthetic, figurative intuitive and situational thinking.

In distance learning it is important that the use of new communication technologies provides the possibility of active interaction of participants in the learning process, and the availability of modern dialogue tools for learning and feedback (computer programs, interactive video discs, information databases and access to them via the Internet, etc.) in accordance with modern principles of didactics.

Practice shows that, if a cadet does not learn to make decisions independently, determine the content of his/her educational activities and find ways to implement them, he will not be able to master a particular discipline. In addition, distance learning performs an educational function - contributes to the formation of leading personality traits: independence, self-improvement, creativity.

The study concludes that the combination of traditional and distance learning enhances the educational opportunities of prospective officers of the Armed Forces of

Ukraine by increasing the availability and flexibility of training, taking into account the individual characteristics and educational needs of the cadets, as well as the pace and rhythm of learning and formation of media literacy. At the same time, professional training of cadets in the conditions of quarantine is directed on deeper understanding of a training material, formation of communicative, information competences. Prospective officers also during quarantine period have the opportunity to use educational platforms and services from around the world, which helps increase their motivation to learn, independence, reflection and introspection. Promising areas of further research are aspects of the development of digital culture of prospective officers of the Armed Forces of Ukraine in the context of the globalized digital space.

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RESEARCH OF INTERESTING PLACES FOR REST IN UKRAINE

The aim of this study was to show little-known and interesting places where tourists can relax and have a good time. Also to prove that our country has interesting places that attract foreign tourists and we have a place to rest within Ukraine.

Summer rest

Warm summer evenings, night walks, fresh morning air, romantic trips ... It's all so familiar to each of us. However, we often hear that in our country there are almost no places where you can relax on a budget and bright. Many people go to Egypt or Turkey in search of a better relationship, without even guessing how many interesting original places there are in Ukraine.

Kinburn Spit

It is located in the Ochakov area of the Nikolaev area. Here you will find beaches with white sand, the aromas of coniferous forests and steppes. In addition, there are deposits of healing mud on the spit.

This place is more suitable for people who want a quiet and peaceful relaxation - almost no infrastructure, beach vendors, hear only the sound of sea waves. You can go to the National Nature Park "White Coast Svyatoslav" - a great place for photo hunting for pelicans, pink flamingos, herons. In the area of Ochakovo (Parutino) there is also "Olbia" - the National Historical and Archaeological Reserve (here you can see the ruins of fortifications, city quarters and temples of the Greek colony of the 7th century).

Karolino-Bugaz

A small village located on a sandy spit 40 minutes from Odessa. Along the entire spit - sea beaches with perfectly clean sand.

Holidays in the Carolina-Bugaz are traditionally considered elite - favorable geographical location and the complete absence of industrial enterprises have allowed this piece of land to become one of the cleanest places on the Black Sea coast.

The land adjacent to the beach on the spit is almost completely occupied by new housing. Cheap rooms and houses are hidden on the second or third lines in 10-15 minutes walk from the sea.

There are almost no attractions for children, so if you like to lie quietly on a deck chair, drinking homemade wine - here you are.

Kirillovka

Mud resort in the Zaporozhye region. Kyrylivka is far from noisy cities, there is no railway as in Berdyansk and major highways. The sea is not deep and very warm, which is perfect for relaxing with children. Nearby are two spit: Peresyp and Fedotova, Utlyuksky and Molochny estuaries.

There are nightclubs, a dolphinarium, a water park, attractions, restaurants and cafes. What to see: in the vicinity of the village of Terpinnia is a unique geological monument - the Stone Tomb. Petroglyphs were also found in this place - rock images of animals, human and geometric figures.

Nearby is a small archeological museum. Also visit the Big and Small Kuchuguri - the local name of the hills, dunes and ridges formed on the terraces of rivers due to wind and sand.

Synevir Lake

Synevir has long been a kind of business card of Ukraine. It is located among the lush forests of Transcarpathia, on top of Mount Ozirna. The lake is very deep and clean, with steep slopes, overgrown with juniper and beech. Here you can become a camp with your own tent or stay in a campsite.

Iron port

The village in the Kherson region. The advantage of recreation in the Iron Port is a long sandy beach, which accommodates a huge number of vacationers, the sea has a sandy bottom.

A medical geyser with a depth of 1572 meters and a temperature of about 70 degrees was opened in the Bekhtera district. This is a real youth center. Permanent discos, round-the-clock bars, restaurants, amusement park, water park, many pizzerias, etc.

Also near the village there are two biosphere reserves - Askania-Nova and the Black Sea Biosphere Reserve, there are organized walks on the floodplains of the Dnieper, wine tours of wineries in Ukraine, you can take a course of mud or ride equestrian clubs.

30 kilometers from Kherson is the largest sand massif in Europe - Oleshkiv sands with a diameter of about 15 kilometers. There are real dunes five meters high, rare desert vegetation and even an oasis.

There are organized three-day tours with the passage through the desert, songs by the fire and a night in tents.

Winter resorts of Ukraine

If you want a good holiday at a ski resort, you do not have to go to distant lands. Ukrainian nature with its diversity of landscapes and climatic conditions provides an opportunity to enjoy skiing from late autumn to mid-spring. So guide to the journey!

Bukovel

The famous Bukovel is known even to those who have never tried skiing in their lives. This resort is associated with beautiful nature, numerous entertainments and high-quality service of local hotels. In addition to the eponymous peak, the famous mountains are also Black Kleva and Dovga.

The village is located at an altitude of 920 meters above sea level. The total length of the ski slopes of Bukovel is 50 kilometers. A total of 62 descents of various levels of difficulty are equipped here.

Therefore, it will be interesting for both professionals and beginners of skiing. The trails are marked in different colors so that tourists do not confuse them. A blue mark indicates an easy level, a red mark indicates a medium level, and a black mark indicates a difficult level. There are 16 ski lifts in Bukovel. Only one of them is a tow bar, the rest are chair seats. Bukovel's mineral springs make it not only a ski resort, but also a balneological resort.

Despite the fact that many people associate Bukovel with expensive service, in fact you can find rooms and food options of different classes. Luxury hotels coexist well with small cottages and private resorts, and expensive European restaurants - with establishments of a more budget level, such as inns.

Dragobrat

This ski resort is one of the most famous in Ukraine. The peculiarity of the ski resort is that it is quite far from local settlements.

Therefore, you can feel the atmosphere of the local picturesque Carpathian nature here in relative solitude. The ski complex is located at an altitude of 1500 meters above sea level. That is why it has been snowing here for the longest time - from November to almost May.

Pylypets

This ski resort is very popular with tourists for several reasons. The enchanting nature of the Mizhhirya district of the Zakarpattia region surprises those who are here for the first time.

And for those who go on vacation to Pylypets from year to year, it seems to remind once again that in the Carpathians there is a wonderful place where you can distract from the usual routine of life and spend time interesting and fun.

Reading reviews about Pylypets, you can often find comparisons, where he is called a "budget version of Dragobrat."

Yaremche

Holidays in winter in Yaremche will be a great solution if you are making your first attempts at skiing. There are only 2 trails, and both are designed for beginners. There is one tow lift.

Yaremche is a great option for a quiet family vacation, if you are more in the mood for quiet relaxation than extreme. This village is attractive to tourists in several respects. Here you can relax at quite affordable prices. This applies to both accommodation and meals at local restaurants.

The peculiar "highlights" of the city of Yaremche are the Dovbush trail and the Probiy waterfall. There is also a famous souvenir market. In short, the opportunity to go in for skiing is not the only entertainment available. And not far from this city is Bukovel, where you can get a taxi.

Conclusion

Friends, vacation in Ukraine is no worse than abroad. Every year it becomes more and more attractive, because it develops and the service becomes better and better.

In addition, this holiday, unlike abroad, will not eat all your savings (of course, if you do not want it). Well, incredible lifelong impressions of native miracles are guaranteed.

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USE OF LEXICAL UNITS *CORONAVIRUS* AND *COVID-19* IN NON-TERMINOLOGICAL DISCOURSE

Covid has had a significant impact on our daily lives since 2019. Our study is aimed at examining how the pandemic influences on the English language. We research how the words *coronavirus* and *COVID-19* behave in an unusual non-medical environment.

Image 1. Corona hairstyle [1].

Coronamüde, coronafrisur, *corona hairstyle*: "From coronamüde (tired of Covid-19) to Coronafrisur (corona hairstyle), a German project is documenting the huge number of new words coined in the last year as the language races to keep up with lives radically changed by the pandemic" [2]. *The newly appeared units in German had a birth because of combining the shornened word coronavirus in English with two everyday German words* (müde, frisur*). In English, we also deal with the same process of combination of the shortened unit corona and the word hairstyle, resulting in emerging a new collocation Corona hairstyle* [1].

Coronavirus anthem: "*Bored in the House,* the song by Tyga and up-and-coming rapper Curtis Roach, has become Tik Tok's unofficial coronavirus anthem: more than 2m videos have been created using the song, with more than 923 million views globally" [3]. The word *coronavirus* used in the context next to the lexical unit *anthem,* refers to the song created in the popular video-sharing social network TikTok. This sentence draws our attention because the general word *coronavirus* [4] is characterized here by its uncommon meaning '*Bored in the House*'. Besides, the collocation itself like *Corona hairstyle* has not been fixed by a general dictionary yet.

Covid passports: At first, we pay attention to the title of the article saying: "No 10 refuses to rule out Covid passports being needed to enter some shops" [5]. The word '*passports'* next to the shortening of the word *Covid-19* creates a collocation, which is not defined either in medical or general dictionary. However, the article introduces a new meaning for the collocation right in the second sentence "Downing Street has left open the possibility that Covid status certificates could be needed for shoppers to enter clothes stores such as Next and H&M, if they are introduced", explaining it as '*Covid status certificates'*. After a short discussion, the author makes his definition more complete adding: “The documents would show a person had been vaccinated, had a recent negative test result or had antibodies through a confirmed infection within the previous six months”. The word combination *‘Covid passports’* appears as a synonym to already existed new word combination *a vaccination passport* [6].

Covidiocy: Another article goes under the title “Are you a complete covidiot? It's what the government wants of all of us” [7]. Here the author introduces the unit *covidiocy* through the frequently met in general use a new word *covidiot* and further in his next sentence the writer continues his explanation: “Denial of the basic facts of the coronavirus outbreak is not confined to conspiracy theorists but has crept into what passes for government policy. Covidiocy is now mainstream”. At the end of his story he again attracts our attention to this newly created concept of everyday reality and makes his conclusion through the above suggested definition of his for the word *covidiocy:* “One of these is Covid denial, which is why it is so hard to deal with. To argue with it is to challenge not a set of beliefs but the emotional core of someone’s identity. You may well dismiss these people, but they are not going to disappear. Covidiocy is now at the heart of everyday life. We cannot distance ourselves from it, however much we want to” [7]. Besides, the meaning of the word *covidiocy* is widened in the article by beliefs that pandemic was started on purpose. On the one hand, the word *covidiocy* refers to the definition already registered by the common dictionary [8]; on the other hand, the writer provides very detailed definition, which is more complete than the paradigmatic one. The picture below describes the word in satirical sense.

Image 2. Covidiocy [9].

Coronavirus (as ‘a cellular data network disease’). Considering the illustration “It’s all anyone can talk about and now Keri is having her say on the virus and she’s blaming 5G, claiming that the cellular data network caused coronavirus due to radiation.” [10], we have discovered rather interesting case. The word *‘coronavirus’* is used in the context as *‘the disease, which roots go to the cellular data network 5G’*. So, the author’s meaning *‘the disease caused by 5G’* absolutely differs from the registered general one [4].

Coronavirus (as ‘a street art’). Below the title “Coronavirus street art – in pictures. Covid-19 is the subject of topical, colourful and attention-grabbing street art, whether it is for artistic, educational or political ends”, we can look through many pictures painted in streets worldwide and showing images of people wearing masks, washing hands and keeping social distance. Both examined words *coronavirus* and

Covid-19 are used here as synonyms and defined as *'street art'* [11], which is also an unordinary meaning for them and has not entered a dictionary yet.

Image 3. Coronavirus street art [11].

The example "Coronavirus – how to wash your hands" introduces the lexical units *coronavirus* as a *'teacher for the habit of washing our hands during the pandemic'* [12].

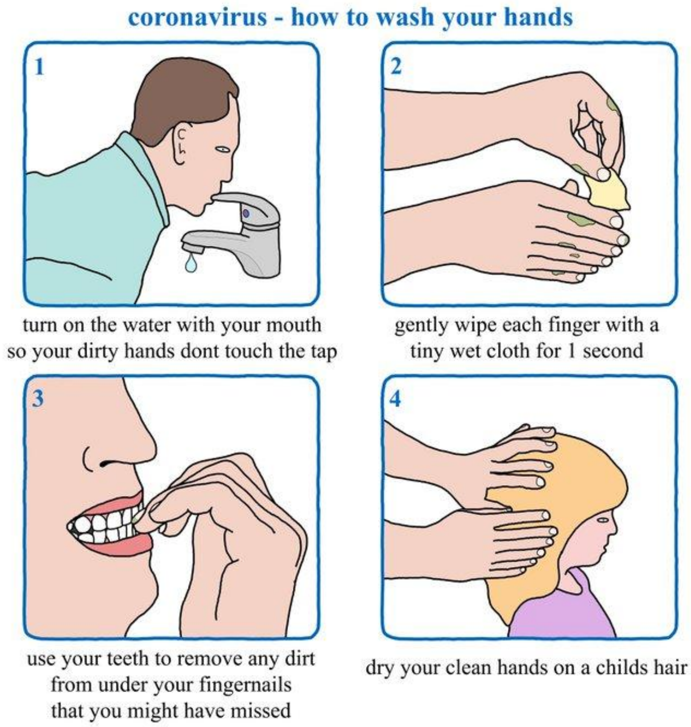

Image 4. Coronavirus – how to wash your hands [12].

Covid-19 tracker app: "A research paper has questioned the benefits of the Covid-19 tracker app in stopping the spread of coronavirus." The article shows the collocation *'Covid-19 tracker app'* as *'the application used for fighting with the disease'*. However, according to our study, the word combination *Covid-19 tracker* refers to the terminological dictionary [13], and due to its combining with the word *application* in the article, we observe the use of the collocation *Covid-19 tracker app*, which, in spite of its everyday use, has not become a part of a general dictionary yet [14].

Our study shows that, at present, many new words come into general use through papers as a result of determinilogization of such medical terms as *coronavirus* and

COVID-19. In addition, the lexical units *coronavirus* and *COVID-19* transform their meanings in new non-terminological environment.

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EXTRACURRICULAR ACTIVITY AS A FORM OF MOTIVATION IN THE PROCESS OF LEARNING ENGLISH

In modern society the knowledge of a foreign language is one of the main and relevant skills which every person needs. English is one of the most commonly used and predominant languages in the world. Because of this, it is also important in children's development as it is better to start mastering this skill in preschool and school age, because it will help in the future. There are various groups, additional classes, excursions, competitions and other activities in the kindergartens and schools.

This topic was also studied by Sidir K. O. and Tomka Y. O. After analyzing both works we can make a conclusion that extracurricular English work is necessary for development and support pupils' interest in learning English at the kindergarten and at school, to develop their creative abilities. Extracurricular activities help to develop not only pupils' initiative and creativity, but love for a foreign language [2].

The aim of this study is to expand knowledge and ideas about methods and forms of extracurricular activities.

Extracurricular work is a variety of educational and upbringing work aimed at satisfying interests and children's requests organized after school hours.

The main organizational principles of extracurricular activities are:

- the principle of mass and voluntariness;
- the principle of taking into account the individual abilities and interests of students;
- the principle of connection of extracurricular work with the material of the school program in lessons.

Considerable attention is paid to the use of extracurricular games in extracurricular activities, interesting tasks, recitation of poems, tasks of increased complexity, tasks-jokes, language puzzles and their using interests children to learn English. Furthermore, historical facts, such as culture, customs, life of the country, the origin of words are of great importance. Conducting mass activities in a meaningful and interesting form creates favourable conditions for the development of linguistic and socio-cultural competence, the formation of personal qualities of pupils.

Nowadays most kindergartens practise in the process of learning English such methods as:

- Game method.

This method will require figures of animals and objects. The teacher lays them out in front of the child and call in English, the child repeats. To remember words children must draw an animal or object lying on the table and remember its name. When the child has memorized at least half of the words, it is possible to build an easy dialogue with him. Thus, pronunciation and oral speech are gradually mastered. It is possible to practice this technique independently or with the teacher.

- Doman's method.

This method is based on children's visual memory. The child is shown the card on which it is the name of the object and its image, the child visualizes the picture and compares it with the word. It is suitable for children up to 6 years.

- Project methodology

It is based on a typical school lesson. Only the topic must be interesting for children. In this rhythm there are several lessons, after which a test is given. It is suitable for children from the age of 4 years.

- Combined techniques

This is a mix of previous techniques. The teacher chooses what is interesting for the children and combines the lessons. Children learn grammar, English with cards, play, draw and gain knowledge that is required and they will need in the future [1].

In the kindergarten we use such forms of work as: language clubs, competitions, theme parties, language circles, poster and magazine creation. They help to learn and deepen knowledge of pupils' English, to know the country where the language is spoken.

We have taken a closer look at foreign language circles. Their purpose is to improve, generalize and learn the language. The main task of the language circles is to convince children that learning of foreign languages is useful and interesting. Learning at least one foreign language will not only develop individual speech abilities of the child, but also will create preconditions for mastering further other languages. Moreover, learning in foreign language clubs brings up a tolerant attitude towards native speakers of other cultures. In language clubs children get acquainted with the countries where the language is spoken, with its culture, with the rules of pronunciation and many other linguistic aspects.

"English Language Week at School" has also become widely used. This is such a form extracurricular work on the subject which is mass, as it involves a lot of pupils to participate in it. It contains different forms of activities that take place over a period of time.

To sum up, we can conclude that this study has not finished its developing and every day it acquires new moments in its improvement. Extracurricular activity is an important part of studying in the kindergarten and at school.

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INTERACTIVE METHODS OF TEACHING ENGLISH

The rapid development of modern society compels a student to learn and understand the material quickly, especially a foreign language. Nowadays, mastering at least one foreign language is becoming integral requirement for the professional competence of a specialist. Therefore, it is necessary to pay attention to the efficiency and quality of the process of learning foreign languages. The most effective methods of learning languages are interactive methods.

The aim of the article is to define the main role of interactive methods of teaching English.

To achieve the given aim, the following tasks were specified: to describe the main interactive methods and to give some examples of using these techniques.

The term "interactive" means that people work together and have an influence on each other. This situation implies a dialogue or a conversation. Therefore, these methods are aimed at the interaction between students and the teacher as well as among students only. It requires an active role of students in the learning process [1, p. 159].

The purpose of the interactive learning is to create some special conditions leading to the involvement of all the students into the learning process in which the participants can understand and realize everything that happens, influence each other and make their own contribution having established the friendly and mutually supportive relationship [2, p. 7].

The most popular methods are **role plays, brainstorming, case-study method, presentations and discussions.** They develop communicative skills, logical thinking and different types of intellectual activity such as analysis, synthesis, comparison, and generalization [3, p. 30]. These student-centred methods are highly appropriate, particularly for involving students more actively in acquiring knowledge, skills and strategies [4, p. 9].

It is commonly known that **role plays** make the learning process at the university more educational and proficient, improve interdisciplinary relationships, connect the theory with real needs of the professional field, and develop skills that are necessary for the future specialists. The key element is the role playing that gives opportunity to form skills that are difficult to acquire under ordinary learning conditions [5, p. 451].

There are two ways a **role play** can go: *scripted* and *non-scripted*. With a scripted role play, the teacher might use an example in a text book. This is a good idea for a warm up exercise, by getting everyone to split up into pairs and allowing them to speak to their partner, taking on different roles. Non-scripted ones are such role plays when students are given some roles and must use whatever knowledge they have in order to speak with partners. There are a couple **of ideas for a general English class.** This can be adapted to suit a situation.

- *Telephone Conversation*

Speaking on the phone is different to a face-to-face conversation because one relies solely on the language to communicate. Get the students who are practicing to sit back to back in order to work properly. There is a whole range of ideas which one can use to act this out. Examples include: phoning to make a complaint, speaking to a friend or inquiring about a job position.

- *Going to the Shop*

It is effective for younger learners as it will teach them the basics of interacting with people. Children generally rely on their parents to buy things for them, therefore this will boost their overall general confidence in buying. It can be as simple or as complex as one wishes, depending on the situation. Key phrases are often important here, such as "I would like…" "How much are…" "Good morning…" and so forth.

Another interesting interactive method that allows to form significant qualities and to develop thinking is **brainstorming**. Brainstorming represents joint search of the ideas necessary for the solution of any problem. The main advantages of this method (under the condition of its correct application) are that students seem to be "liberated" – the language barrier disappears, there is no fear to say something wrong, the restraint goes away, etc. The method of brainstorming develops creative and associative thinking, initiative, the ability to produce a maximum of ideas in a tight time, the ability to express personal opinion [6].

There are some ideas of brainstorming activities:

- *Multi-purpose Items*

First, the teacher gives the class any object. Next, give the students a couple of minutes to think of all of the different uses for that item. In about five or six minutes, the teacher asks students to share what they have come up with.

For example, you can use forks to eat food, comb your hair, open cans, mix ingredients, and clean pans. Not so bad for a simple fork. Using the "Multi-purpose Items" encourages creativity and it's fun to hear what the students come up with.

- *Talking Timebomb*

First, the teacher comes up with a topic or idea. Next, the teacher starts the music, and students have to think of as many words as they can for that topic.

Someone starts with a ball. When he /she comes up with a word, he /she passes the ball to another student. This process continues but students can't repeat something that has already been said.

When the music stops, whoever is holding the ball loses. And the punishment can be anything. For example, they must speak for one minute about a topic the teacher gives them.

An equally interesting interactive method that the teacher can use is the **case-study method**. It is a learning technique in which the student is faced a particular problem, the case. The case study facilitates the exploration of a real issue within a defined context, using a variety of data sources.

Performing case study gives students the following benefits, it:

1) allows students to learn by doing. Case study permits students to step into the shoes of decision-makers in real organizations, and deal with the issues managers face, with no risk to themselves or the organization involved;

2) improves the students ability to ask the right questions in a given problem situation;

3) exposes students to a wide range of industries, organizations, functions and responsibility levels. This provides students the flexibility and confidence to deal with a variety of tasks and responsibilities in their careers. It also helps students to make more informed decisions about their career choices;

4) strengthens the student's grasp of management theory, by providing real-life examples of the underlying theoretical concepts. By providing rich, interesting information about real business situations they breathe life into conceptual discussions;

5) reflects the reality of managerial decision-making in the real world. Here students must make decisions based on insufficient information. Cases reflect the ambiguity and complexity that accompany most management issues;

6) helps to understand and deal with different viewpoints and perspectives of the other members in their team. Unquestionably, this serves to improve students communication and interpersonal skills;

7) provides an integrated view of management. Managerial decision-making involves integration of theories and concepts learnt in different functional areas such as marketing and finance. The case method exposes students to this reality of management [7, p. 85].

Topic areas that teachers of general English courses may consider include the following:

- planning a weekend in a specific town, reconciling the various interests of group members;
- choosing a restaurant suitable for people with different dietary requirements;
- planning a vacation on a budget for a group or family at a specific destination;
- advising somebody how to reduce plastic waste in daily life;
- advising somebody how to lead a healthier lifestyle;
- planning an intercultural party;
- evaluating a brochure;
- evaluating apartment rental offers.

Conclusions: So, after representing the given methods, we can conclude that interactive teaching methods contribute to optimizing the learning process in studying English. They intend to put mechanisms for motivation in place and increase the efficiency of teaching English language communication. The advantages of using interactive methods in the process of students learning include the maximum approximation to the real conditions of professional activity, the broad autonomy of students, decision making in conditions of creative competition and the development of skills for spontaneous speech, promoting the development of organizational skills of students, overcoming the barrier between the study of language and its practical application.

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DEFINING THE MEANING OF ADJECTIVES ENDING IN -IC/-ICAL (CASE STUDY)

Adjective-forming suffixes -al and -ical occur frequently as word-building elements of English lexis and are by far considered productive. However, their manifestations with similar stem envoke confusion of language learners despite the efforts of a sufficient number of lexicographers and lexicologists to explain differentiating shapes of their meaning. Therefore, the task of our empirical case study is to clarify the degrees of similarity and/or the difference of their meaning in various contexts of the English language use.

As is known, corpora linguistics nowadays is a single reliable basis for an evidential study in the vast array of language use. Adjectives, that are similar in structure and meaning, ending with suffixes -ical and -ic, namely three couples ‘classic – classical’, ‘historic – historical’ and ‘electric – electrical’, have been chosen for the verification of our hypothesis. The latter has been formulated in the following way: these adjective couples dispslay specifically different meaning and possess certain semantic regularity. OANC (the Open American National Corpus) [1] has been used for the case study due to the following reasons: (a) it is a relatively massive electronic collection of spoken language use in 1990 onward and constituting over 22 million words, (b) it is compiled from the texts of all genres of spoken data, and (c) it is unrestricted for any use.

All the above couples of adjectives were extensively verified in the OANC as far as their meaning was concerned but due to the lack of space we demonstrate most typical of them on the examples of scrap view extracts from the corpus data.

Word	Context	Meaning
classic	We serve a **classic** Tuscan meal that includes a Florentine terrine made with duck and chicken livers...	A high quality item that is generally considered to be one of the best in its field or meets some traditional standards.
	Leo Rosten offers two **classic** definitions.	A characteristic, typical representative of something.
	The **classic** “Little Red Riding Hood,” for instance, was told to me as a child in the Nice version.	Used in relation to the most significant literary works of the past.
	Lewis Carroll provides a **classic** example: in Through the Looking-Glass, the White Knight relates how he fell into his own helmet and “it took hours and hours to get me out.	A characteristic, typical representative of something.
Classical	Let’s consider just how work might actually be extracted in the **classical** Maxwell demon situation with an ideal gas in two boxes separated by a partition with the window and flap valve.	Belonging to a specific historical period in the past.
	In chapter I will discuss a quantum analogue to such a theory, in which complex quantum systems that couple tend to “decohere” irreversibly to **classical** behavior and thereby progressively build up complex classical structures.	Belonging to a specific historical period in the past.

Word	Context	Meaning
historic	The Appendices volume contains seven national lists of places such as airports, Indian reservations, and **historic** places.	related to the past
	And there we have another whole river to cross, since some of the best-known literary works have retained their **historic** titles, complete with outmoded spellings and punctuations.	related to the past
	Via Venti Settembre `20th of September Street' illustrates the Italian propensity for naming streets after **historic** dates.	related to the past
historical	Because of an increasingly widespread lack of familiarity with the basic, structural elements of our culture—Greek and Roman mythology, the Bible, literature, and ordinary **historical** fact	related to the past

Word	Context	Meaning
electric	He had met Leary at Millbrook once in 67, he had done light shows at the Fillmore with Janis, Country Joe, The Incredible String Band (one of his fey favorites), Sly and the Family Stone at the **Electric** Circus.	Used metaphorically
	He is at work modifying and lowering **electric** dryers for wipe-with-your-hands countries.	Particular device
	It changes its name and its game, but doesn't mean shit to that magnificent tree...	Particular device

1) Classic has the following meanings:

- a high quality item that is generally considered to be one of the best in its field or meets some traditional standards;
- a characteristic, typical representative of something;
- used in relation to the most significant artistic works of the past.

Classical has the following meanings:

- belonging to a specific historical period in the past;
- a European orchestral music of the 18th-19th centuries.

These adjectives can be conditionally divided into groups: *classic* has the meaning of something traditional, generally accepted, corresponding to certain standards of quality, style, etc.; *classical* has the meaning of designating the culture of the past and art forms belonging to a long-standing formal tradition.

2) Historic has the following meanings:

- something which is historically important;
- something which is significant.

Historical has the following meaning:

- related to the past.

These two adjectives can be divided into such groups: *historic* means that some event, date or place is very important, significant; *historical* means something that is related to the study of things from the past, history.

3) Electric has the following meanings:

- when referring to a particular device that is based on turning electricity into another form of energy;
- it can be used metaphorically as a synonym for “exciting”.

Electrical has the following meanings:

- when speaking about unspecified devices or something only related to electricity.

These two words can also be divided into groups: *electric* is powered by electricity, not mechanical, generating electricity; *electrical* means associated with electricity.

Thus, in conclusion, we can state that the above couples of adjectives ending in -ic and -ical are not only different in their meaning but the analysis on the basis of the corpus proves that each of the two suffixes also possesses its specific similar meaning as a word-building element attributed to the adjectives.

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THE EFFECTIVENESS OF MINDMAPS IN LEARNING HISTORY

Admission: There is worldwide agreement that high quality interaction between teacher and learners is an important element of effective teaching. In traditional way of teaching the only interactive resource available to the student was the teacher. Other resources for learning (textbooks, video, maps, tables) have only facilitated one-way communication and require metacognitive effort on the part of the user in order to construct knowledge from them In order to engage learners in the studying process with, a high degree of teacher intervention is needed [4]. Thus, effective interactive teaching is characterized by interchange between teacher and involving students to create, to share, to analyze, to discuss ideas rather than the common initiation-response-feedback sequence of teacher questioning.

Aim of the study: This paper examines different interpretations of interactive teaching, explains and proves effectiveness of the suggested method of teaching than other approaches (placing the teacher in a different role), and analyses the evidence concerning its value.

The research methods and material: The scientific literature and other sources relevant to a particular problem were examined and compared. 3-phase lessons of History were conducted and performed during 3 months. 15 first year students in Zhytomyr Medical Institute were also interviewed concerning their use of ICT. Their comments about learning focused on how they remembered things, and they confirmed and extended what the teachers had said and what the researchers had observed. Based on the findings of the study, relevant interpretations were discussed, and some recommendations were suggested.

Our society lives in digital era, where everyone wants something efficient, effective, dynamic, fast, modern, useful and interactive. The term 'interactive' appears in two distinct strands of educational research discourse: one concerning pedagogy and the other concerning new technologies in education. Teaching students with traditional method where there is only one way of communication is no longer effective [5].

Student interactivity is defined as the student's ability to response continually [5]. According to scientific literature, interactivity has long been aimed at the contribution to successful teaching and learning. Because of that reason to solve the problem, we need interactivity in teaching and learning to create better environment to be more active and dynamic [1, 2, 5].

Research indicates that kinesthetic activities and active lessons are essential for motivating students [2, 3, 5]. Active learning will lead to students' cooperation and involving in discussion and collaboration with others.

Teaching History with first years students in Zhytomyr Medical Institute. The three-phase lesson format was used for all History subject in the institute. In this class, students were learning about the features, causes and effects of 'The Second World War'. For the first phase, the teacher used a prepared Powerpoint presentation with images and graphics to stimulate thinking about the topic during an interactive whole-class questioning sequence, to confirm points given as answers, and to support her explanation of the main ideas and issues. The main phase of the class involved the continuation of an activity in which groups of seven students produced mindmaps concerning the topic on large sheets of paper onto which students arranged prepared cards. The teacher explained to them that the following class, each group would use Publisher on the five individual PCs in the classroom to write up the points covered in their mind map using a magazine format. The teacher later explained that the manual approach increased the involvement of all seven students in the group, compared with using PCs where only two or three tended to contribute. The third phase of the class was a review activity concerning the main learning points. A flipchart had been prepared displaying a table with three columns, the headings for each column, and words placed in random order along the bottom of the page which were to be dragged into appropriate columns. First year students were nominated to come up in turn to move the words into the correct columns, using the knowledge they had gained from the earlier manual activity. This involved some strategic thinking when students were unsure of the place to move their word to, and some gauged the reaction of the rest of the class when dragging a word to different possible positions before letting it drop when the others students indicated agreement [1,2,4 5].

Traditional method of teaching often makes the student unmotivated with boring classroom environment, disengages from the teaching material, and produces a passive classroom. On the other hand with the new method of teaching, interactive classroom has been proven otherwise [4, 5].

Conclusion. The current generations who are digitally native and active require a new approach of teaching and learning because the traditional method has been proved to be not effective. To support the need, an interactive learning method is developed. The new approach increases the visual spatial skills, memory skills, and multitasking ability. It helps student to gain knowledge in teams and independently, and a teacher's role is to guide and monitor the process.

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THE LEXICAL AND IRONIC EFFECT OF PROSE FABLES AND THE TECHNIQUES OF THEIR TRANSLATION

Fable – one of the kinds of the lyre-epic genre, a small allegorical, mostly poetic work of instructive content, with an expressed moral.

Historically, the fable originated from folklore sources – fairy tales, proverbs, etc. Initially, it was a fable in prose, which had mostly instructive character. Another source of fables was the collection of Indian fairy tales, parables, fables of the 3rd-4th centuries AD "Panchatantra" («П’ятикнижжя»), which was distributed in legends in East and in Europe. Right then the characteristic features of the genre were born.

It is believed that the fable originated in Ancient Greece. Its first authors were called Stesichorus and Hesiod. However, the greatest popularity was achieved by Aesop, whose works later were used by famous fabulists as the basis to create works of this genre. Less popular were Demetrius of Falera (300 BC) and Babrius (2nd century AD).

Among the English-speaking authors of fables, the most famous are: Ambros Bierce, James Thurber, Thomas Carlyle, Edwin Friedman, Arnold Lobel, William Saroyan and others. In Ukrainian literature – these are L. I. Hlibov, M. P. Hodovanets, E. P. Hrebinka, L. I. Borovykovsky, P. P. Hulak-Artemovsky.

The fable structure is:

1)exposition; 2) dialogue and actions of characters; 3) moral.

Moral is the most important part of the fable. This is an instructive conclusion, which is usually found at the end of the fable. This is what the writer wanted to convey to his readers, what he wanted to teach them with this fable.

The presence or absence of moral in a fable is an extremely important feature. Placing it in front of the fable or at the end changes the structure of the fable and the impression that the fable makes on the reader. The nature of moral and its place in the text of fables provide an opportunity to classify fables clearly, but this is just one of many possible fable classification by their compositional structure.

The aim of our research is to determine the sructure, the lexical peculiarities and the techniques of translation of the prose fables by James Thurber.

Let`s have a look at the examples. These examples are divided into 2 groups:

1)several idioms taken from the fables and their translation;

2) morals from the fables and their translation.

The first group:

1. *"Let us not split hairs," said the third fox, and he took his share of the stag as a withholding tax. ("The Lion and the Foxes")*

Split hairs – to argue about small details of something.

Translation:

"Давай не сваритися через дрібниці", – сказав третій лис і забрав свою частину оленя в якості прибуткового податку.

The analogue is used and compensation is performed.

2. *"Any three things your heart desires." ("The Godfather and His Godchild")*

Heart`s desire or heart desires – the thing you most want.

Translation:

"Будь-які три речі, які забажає твоє серце".

The equivalent is used.

3. *MORAL: It is not as easy to get the lion's share nowadays as it used to be. ("The Lion and the Foxes")*

Lion's share – the largest part or most of something.

Translation:

МОРАЛЬ: тепер не так легко привласнити левову частку, як раніше.

The equivalent is used.

It`s also one of the morals, so it`s necessary to point out the used transformation:

Concretization: "to get – привласнити".

The second group:

1. *MORAL: Though statisticians in our time have never kept the score, Man wants a great deal here below and Woman even more. ("The Godfather and His Godchild")*

Translation:

МОРАЛЬ: хоча статисти в наш час ніколи не вели підрахунок, але чоловік хоче багато чого, а жінка – ще більше.

Transformations:

Replacement: "never kept – ніколи не вели".

Generalization: "a great deal here below – багато чого".

2. *MORAL: If life went along like a popular song, every man's marriage would surely go wrong. ("Tea for One")*

Translation:

МОРАЛЬ: Якщо спільне життя схоже на ідеал із популярних пісень, кожен шлюб, безсумнівно, зазнає краху.

Transformations:

Replacement: "If ... went along – Якщо ... схоже", " would go wrong – зазнає краху" and "a popular song – популярних пісень".

3. *MORAL: He who lives another's life another's death must die. ("The Rose, the Fountain, and the Dove")*

Translation:

МОРАЛЬ: Той, хто живе чужим життям, має померти не своєю смертю.

Transformations:

Antonymic translation: "another's – не своєю".

Transposition: "another's death must die – має померти не своєю смертю".

4. *MORAL: You can't very well be king of beasts if there aren't any. ("The Tiger Who Would Be King")*

Translation:

МОРАЛЬ: Неможливо бути царем звірів, якщо немає над ким царювати.

Transformations:

Replacement: "You can't – Неможливо".

Replacement + addition: "if there aren't any – якщо немає над ким царювати".

In conclusion, I`d like to say all fables have an ironic sense and a message to readers. Taking into consideration these one`s morals, we can state that life is complicated, not everything goes in the best way: marriages not always are ideal, people not always are honest and the strongest often get the largest part of something. We should not just read the fables but also pay attention to messages given in them and try to take things easy.

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VERBAL CONNECTIONS IN THE ASSOCIATIVE FIELDS OF INCENTIVE WORDS PANDEMIC, QUARANTINE, CORONAVIRUS, COVID-19, INFORMATION

The purpose of this research is to establish the types of verbal connections in associative fields of incentive words: PANDEMIC, QUARANTINE, CORONAVIRUS, COVID-19, INFORMATION and set their frequency.

The term "human in language" is attracting more and more interest in modern science. At the present stage of development of linguistic research, most scientists state a change in the scientific paradigm, calling it anthropocentric. Therefore we turned to native speakers to determine the place of such concepts as *pandemic, quarantine, coronavirus, covid-19, information* in their linguistic consciousness. For this purpose we conducted free associative experiment, that is one of the most efficient for analyzing linguistic materials [1]. Our online study involved 300 people who were asked to respond with the first word that comes to mind to the mentioned incentive words: PANDEMIC, QUARANTINE, CORONAVIRUS, COVID-19, INFORMATION. All these reactions form associative fields.

For today, there is no versatile classification for the analysis of associations. In our research we chose previous classifications (D.Terekhova, L.Kushmar, O. Denysevych [2] et al.). This classification focuses on the study of verbal connections in associative fields. There are 11 types of reactions:

1. PARADIGMATIC REACTIONS – this type indicates the semantic relationship between an incentive word and response. Such reactions are often synonymous with the incentive word, for example: PANDEMIC – *epidemic* 3 (3 is a number of repetitions of the reactions in associative field); PANDEMIC – *spreading* 3. Also in paradigmatic type contains "mirror" reactions, which means that the incentive word and reaction can change places and become associates with each other, for example: COVID-19 – *coronavirus* 5; CORONAVIRUS – *COVID-19* 13; PAMDENIC – *coronavirus* 25; CORONAVIRUS – *pandemic* 14.

2. SYNTHAGMATIC REACTIONS – is a type of reactions when reaction with an incentive word form a phrase, for example: PANDEMIC – *mass*, *worldwide*; INFORMATION – *unreliable* 3, *false* 3, *fake*. Such reactions indicate a feature of an incentive word, describing it. The following reactions indicate the action to which the human subconscious induces as a reaction to an incentive word, for example: INFORMATION – *to filter*; INFORMATION – *enough*; PANDEMIC – *to sit at home*; PANDEMIC– *leave*.

3. THEMATIC REACTIONS – is a type of reactions when due to the grammatical influence on the reaction in combination with the incentive word may form a phrase, for example: COVID-19 – *epidemic* 3 (epidemic of COVID-19); INFORMATION – *protection* (information protection).

4. PHONETIC REACTIONS or sound reactions is a type when the word is alike with an incentive word , but has semantic connectionwith each other, for example: PANDEMIC – *panda*; CORONAVIRUS – *box windows* 3(in Ukrainian these words sound similar).

5. PROPER NAMES arise as a reaction quite often, especially considering that some of the incentive words presented were also proper names. There were such reactions: COVID-19 – *China* 4 (geographical reactions)*;* COVID-19 – *Zelenskyy* (personal reactions)*;* CORONAVIRUS – *Corona extra* 2; INFORMATION – *Google* 2; *Facebook* 1 (names of famous corporations); COVID-19 – Monsters, Inc. (cartoon name).

6. WORD-FORMING REACTIONS – these are the reactions that have one root with the an incentive word, for example:: CORONAVIRUS – *corona* 20; CORONAVIRUS – *virus* 11; Also, reactions that are in this category can form a new word, наприклад: INFORMATION – *info*.

7. REMINISTIC REACTIONS – these reactions are **idioms,** well-knownphrases, citations andproverbs for example:COVID-19 – *Happy New Year*;

8. ABBREVIATIONS – this type of reactions consists associations in the form of well-known abbreviations, for example: INFORMATION – *SMM* 16; COVID-19 – *H2O*.

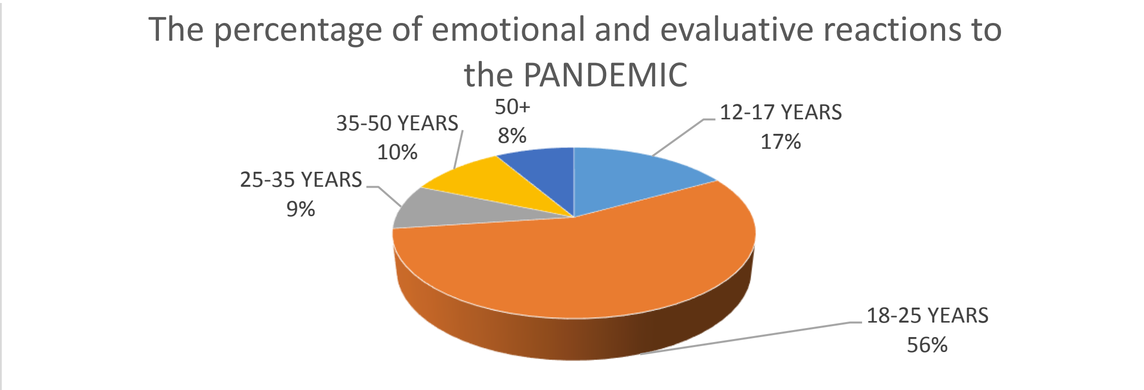
9. EMOTIONAL-EVALUATIVE REACTIONS happen very often and contain negative or positive appraisal of the word. In our research dominated **negative reactions**: PANDEMIC – *fear* 18; *death* 8; *horror* 3; *chaos* 3; *panic* 2; *lie*; *threat*; *pain; evil; depression; wrong; anxiety;* COVID-19 – *death* 12; *fear* 6; *danger* 4; *evil* 2; *terribly*; *punishment, depression*; *patience*; INFORMATION – *lie* 2; *manipulation* 2; QUARANTINE – *boredom* 5; *tiredness* 2; *closed space; solitude; horror; sorrow; fear; evil; badly; anger; absurdity; effort;* CORONAVIRUS **–** *tired* 7; *death* 6; *fear* 5; *bad* 3; *panic* 2; *danger* 3; *fright*; *horror* 3; *victims*; *chaos; anxiety; lie*. Separately, we note that in the associative fields we find out response with obscene language. Such words accounted for 1.6% of all responses to PANDEMIC; COVID-19 – 2%; INFORMATION – 0.3%; QUARANTINE – 1%; CORONAVIRUS – 1.6%. In the associative fields we find reactions with a **positive assessment**: INFORMATION – *force* 4; *good*; *benefit* 5; *power*; *class* 2; *value*; *development*; *rest*; QUARANTINE – *correct*; *just for me* 2; *vacation*; *safety* 3. In some answers there was a certain sarcasm: PANDEMIC – class; bravo; victory; COVID-19 – super, bravissimo;

10. FOREIGN REACTIONS – these are reactions with usage of foreign languages, such as English or Russian: PANDEMIC – *lockdown;* ІНФОРМАЦІЯ – *information;* КАРАНТИН – *forbidden holidays;* CORONAVIRUS – *home delivery;* PANDEMIC – *closed space; trouble; discouragement; cleansing; emotionlessness; used to; worldwide conspiracy*; COVID-19 – *rat; anxiety; cleansing of the population;* INFORMATION – development; training; lies; power; truthfulness; QUARANTINE – safety; boring 2; torture; fettering; CORONAVIRUS – *small, conspiracy; pain; way; losses; stupidity; tired of*; CORONAVIRUS – *nice* 3; QUARANTINE – *remote* 2; PANDEMIC – *lockdown* 4; INFORMATION – *fake* 4;

Taking into account emotional and evaluative reactions, this type accounts for 19.3% of all results on the incentive word PANDEMIC. This type occupies a very important and significant part of the study, because it is through free associative experiment can be traced to change the picture of the human world, and as a consequence – the psycho-emotional state of human as part of society. There is the greatest tendency to emotional and evaluative reactions among young people (18-25 years) there.

Diagram 1 shows the percentage of emotional and evaluative reactions to the word PANDEMIC.

Diagram 1



The prospect of our study is to establish semantic and other types of connections in the associative fields of words PANDEMIC, QUARANTINE, CORONAVIRUS, COVID-19, INFORMATION.

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LEXICAL CHARACTERISTICS OF ENGLISH LANGUAGE COSMETICS ADVERTISING

The aim of this study is to research English-language cosmetics advertising texts on the Internet, which predetermines the following tasks: to analyse the definition of an advertising text and its structural components; to consider the classification of advertising texts; to characterise the means of expression in cosmetics advertising; to examine the non-verbal component of Internet cosmetics advertising; to determine the lexical features of English-language Internet advertising.

The relevance of the research topic is determined by the increasing role of online advertising in the linguistic and cultural society and the need to analyse the linguistic and paralinguistic features of Internet advertising of cosmetic products.

Advertising is a unique phenomenon not only in the socio-economic, political, cultural sphere, but also in linguistic reality. It is not just an announcement, a message, a reminder, but also a means of attracting attention, creating image and popularity [1, c. 3].

It has been established that advertising has informative, economic, social and ideological functions. However, the main function of advertising is considered to be pragmatic (stimulating), the purpose of which is to influence the consciousness of the recipient.

The verbal part of an advertising text consists of four basic elements: the slogan, the title, the main advertising text and the echo-phrase. Only when they are combined in harmony is the advertisement text adequately perceived and effectively translated. The presence of all the components in each advertising message is not necessary.

The title is the most important verbal part of advertising. It contains the advertising message and the main advertising argument. The purpose of the title is to attract the audience's attention and generate interest in the advertised product or service [4, c. 1].

A slogan is the main catchphrase of a media text that contains an advertising proposition; a short stand-alone advertising message that can exist independently of other advertising products. The main functions of a slogan are: to attract attention, to arouse interest, to suggest an idea, to reinforce it in the mind of the recipient [3, c. 159].

An echo-phrase is an expression that stands at the end of an advertising text message and repeats the title or main theme of the message; a phrase in the text that comments on and clarifies the slogan [3, c. 49].

Advertising text is classified according to its social purpose: commercial, social; functional purpose: prestigious, consumer; presentation method of advertising information: oral, written; presentation method of advertising material: descriptive, nominative, statistical; nature of content: argumentative, non-argumentative; the way the information is presented: dialogue, monologue; by subject matter: advertising text for clothes, cosmetics, food; by gender: male, female; by territory coverage: international, national, regional, etc. [2, c. 6].

The main layer of vocabulary in advertising texts consists of common words. Among the main lexical features of cosmetics internet advertising are: adjectives in the higher and highest degree of comparison, verbs, personal and possessive pronouns, and attributive conjunctions. Epithets *("Vibrant colors", "Dramatic, seductive and captivating. Your eyes speak volumes")*, metaphors (*"The butterfly effect", "The winged eye")*, hyperboles (*"The gift of kings", "It's the next era in color care")*, comparisons *("Like a shot of espresso for tired skin", "Hair like silk, just smoother")*, antitheses *("Less makeup. More coverage")*, anaphors *("New hair. New you")* and epiphors *("Lift it. Boost it. Own it")* and rhetorical questions (*"Doesn't your skin deserve better care?"*) are also often used. Authors of texts distinguish parts of a single sentence as independent sentences by separating them with dots (parcelling). For example, *"One. With the power of Two", "The skin of your dreams. Instantly. And for the future".* Verbs *(buy, try, ask, see, feel, taste, watch, discover, do, let, look, etc)* are widely used in English, while adjectives or adverbs are widely used in Ukrainian. The main non-verbal components of advertising texts include kinemes (image, font, colour, text placement on the page plane, background colour).

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THE WAYS OF FORMATION OF PROFESSIONAL SKILL OF THE EDUCATOR IN THE KINDERGARTEN

The problem of pedagogical skills remains one of the key in pedagogy. The teacher has always been and will remain a central figure in the educational process.

Many scientists have studied the issue of professionalism of an educator. Among them we can single out S. Rusova, A. S. Makarenko, I. A. Zyazyun, I. Skomorovska, and Yu. P. Azarov.

The purpose of our study is to reveal ways of formation of professional skill of the educator in the kindergarten on the examples of well-known scientists.

Nowadays an educator is one of the most important professions because it forms a person's personality. Today we need not just an educator, but a teacher-researcher, a teacher-psychologist, a teacher-technologist, a teacher-innovator. That is why, students of pedagogical colleges must form their professional skills.

Before talking about professional skills, we have to find out who the master is. A master is a professional in his field, a man by vocation [1]. So, according to D. F. Nikolenko the skill of a specialist involves the ratio of knowledge and skills with the ability to possess them [2]. Psychologists G.O. Lublin and S.E. Kulachkivska consider that components of the pedagogical skills of a kindergarten teacher are intuition, inspiration, and talent [3].

Taking all these scientists' ideas into consideration, one of the ways to form the professional skills of an educator is self-criticism and self-improvement. Some psychologists believe that the leading skill of educators is the ability to critically evaluate themselves and their professional activities. This is one of the most important conditions for productivity.

Moreover, we think an educator must master certain personal qualities to acquire professional skills. Here is an example of what an educator should be according to S. Rusova:

- "He must have the widest possible professional and general education, material independence; full political rights; independent respect in citizenship.
- Possess such traits: love for children; paying special attention to their responsibilities as teachers, being willing to sacrifice their peace for their pets; being physically healthy, having a calm, cheerful mood; never losing balance in relationships with children; having a high general and professional education; being able to sing folk songs; being able to draw; having considerable knowledge of literature, their native and world; having a high understanding of life and good, a heart sensitive to good and beauty; being able to establish a native between the child's native home and the children's institution» [4].

The pedagogical abilities of an educator play a rather important role in acquiring professional skills. The important research on the problem of formation of pedagogical abilities was conducted by N.V. Kuzmina. The researcher believes that the ease of acquiring knowledge and skills in a particular activity depends on abilities, but these mental properties develop in the process of this activity itself [3]. We believe that this ability is the result and prerequisite for the development of the educator in the kindergarten.

We have created a questionnaire for students of Berdychiv Pedagogical Professional College. The students were asked to answer such questions as:

- Do you use the personal qualities that S. Rusova calls for in your work?
- What role do you think the pedagogical abilities of an educator play in acquiring professional skills?
- What qualities, in your opinion, should be inherent in the educator of the kindergarten?
- What way of formation of professional skills would you suggest?

On the basis of our own sociological surveys, we found out which way of forming the professional skills of an educator is closer to the students of Berdychiv Pedagogical Professional College. Due to the results of the survey we found out that 73% of respondents are familiar and willing to use personal qualities in their work which S. Rusova calls for and appreciate the pedagogical abilities of the educator. The other 27% are not very interested in this problem, they believe that the main thing in the work of an educator is to have the higher education. Some of 73% respondents singled out such qualities as: never losing balance in working with children, evaluating their work well and paying special attention to their work. Respondents suggested another way to form professional skills. It is pedagogical creativity. They paid attention to pedagogical creativity because an educator is not only a teacher, but also an actor, artist, and sculptor as every lesson for an educator is a play where he or she is both a hero and a screenwriter. Respondents also emphasize that it is necessary to use various ways of forming professional skills in order to be effective in their work.

To conclude, we consider an educator is one of the most important professions because it forms a child's personality. Today an educator is a teacher-researcher, a teacher-psychologist, a teacher-technologist, a teacher-innovator in one person. In the future we can expand, deepen this study and analyze other ways of forming the professionalism of the educator in the kindergarten.

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INFORMATION AND COMPUTER TECHNOLOGIES IN LEARNING A FOREIGN LANGUAGE

The aim of this study was to investigate the effect of information and computer technologies on learning a foreign language in a military institution of higher education.

In recent years, new priorities for the development of education have been identified in Ukraine, and, accordingly, it has begun complex process of its modernization taking into account the needs of modern information technology society. Ukraine's integration into the European and world space actualizes the task of preparationa new generation of the officers of the Armed Forces of Ukraine who are well versed in modern information and computer technologies.

In higher education, preference is given to active learning methods that are aimed at formation of cadets' independence, variability, creativity, critical thinking. The most powerful source of cognitive activity of prospective officers, the development of their creative abilities, interests, skills and other intellectual factors today are innovative technologies. Innovative technologies in education are first of all information and communication technologies, inseparably related to the use of computer-based learning. Innovative technologies are the complex of educational computer programs, their content and optimal organization of Web-space, in other words, ways of introduction of ICT (information-computer technologies) in the education system.

Modern technologies in learning a foreign language at both language and non-language faculties are vocational training, project work in learning, the use of information and telecommunication technologies, work with educational computer programs, remote technologies in learning foreign languages, creating presentations in the Microsoft software environment PowerPoint, the use of resources of the World Wide Web.

Different aspects of the implementation of new information and communication technologies in the educational process have been actively studied in the works of such researchers as: E. Dmitrieva, S. Novikov, E. Polat, T. Polilova, L. Tsvetkova and others.

Modern ICT can be widely used to familiarize with new language material at the stage of training and application of knowledge, skills and abilities. With their help cadets have the opportunity to perform the following types of educational activities:

- study lexical material;
- improve understanding of audio texts;
- develop reading techniques;
- master grammar;
- learn to write;
- train pronunciation, etc.

The use of computers during English lessons significantly increases the intensity of the educational process. Much more materials are studied through computer-based learning. In addition, the material is better acquired.

Applying of ICT has a significant impact on educational process at all levels. It is a multi-purpose solution to different problems of a lesson. Online courses, learning aids, educational software, social networking tools, and other emerging technologies disrupt the traditional classroom environment. Understanding the effects that technological innovations have on cadets, teachers, and educational institutions is critical to developing strategies and techniques to manage and use ICT in education.

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LEXICAL TRANSFORMATIONS IN TRANSLATING RIDDLES AND PUNS

The structures of different languages can have many inconsistencies, which leads to difficulties in preserving and transmitting the meaning of words in translation. Word is a lexical unit and part of the lexical system of language. The semantic structure of the word is unique for each source language and target language. Therefore, translation transformations, specifically lexical ones, come to the fore.

The choice of topic is determined by the experience of working with translation transformations as an important means of achieving translation adequacy. Transformations help to overcome certain existing lexical difficulties in translation. Transformation is the change of formal or semantic components while preserving information. [1]

Translation is an activity that consists in the transmission of the content of a text in one language by means of another language, as well as the result of such activities. The main purpose of translation is to achieve functional adequacy. Adequate, or as it is also called, equivalent translation is a translation that is carried out at a level necessary and sufficient to convey a constant outline of content in compliance with the relevant plan of expression, so called the rules of the language of translation. That is why transformations are used in translation.

The simplest lexical transformations are omissions and additions. Lexical transformations often require additional words or, conversely, omission of some elements. The introduction of additional words is due to a number of reasons: differences in sentence structure and the fact that more concise English sentences require a more detailed expression of thought in the Ukrainian language. The absence of a corresponding word or a corresponding lexical-semantic variant of this word is also the reason for the introduction of additional words in translation.

The purpose of the study is to compare the text from source language to target language, and to study the semantic transformations in the text aimed to preserve the meaning of the "riddle", to define the approach to translation transformations and their role.

The research subject is Jack Delany's short story "The Case of The Lower Case Letter".

The research object is coded message in the suicide note. Source text (ST) - English, target text (TT) - Ukrainian.

Plot summary: A famous lexical semanticist, Edgar Nettleston, was found dead. Police verdict was suicide. The scientist's wife, Edith Nettleston, wants to find her husband's paper that would bring her considerable income. She believes that the suicide note will help find its whereabouts, but she is wrong. The note encodes a message that points on the killer.

While translating, I faced a problem in rendering the plot organizing pun (the professor's note) into Ukrainian without losing its significant meaning. Word play is a stylistic device based on words based synergy (homonyms) or ambiguity (polysemous words). The most important feature that distinguishes homonymy from polysemy is the connection between the meanings of words in polysemy. This unity is determined by internal connections, which is manifested in the transfer of meaning, in the meanings that are formed by external similarity, functional proximity or identity. If this connection disappears, then homonymy is formed. The phenomenon of homonymy, characteristic of all languages, and in English is quite common due to the large number of borrowings and relatively small average length of words. [3]

Homophone is also very common in English. Homophones are words that are pronounced the same way, but have different meanings and spellings. For example, air (повітря) – heir (спадкоємець); week (тиждень) – weak (слабкий). Homophones are difficult to translate, because then the essence of the whole phrase is lost.

With literal translation, it is simply impossible to convey a word play, because the basic requirements for the translation of works of art are lost:

1) Accuracy. The translator must convey to the reader all the thoughts that accompanied the author in writing the text, in particular fictions. It is important to preserve not only the main provisions, but also the nuances and shades of presentation, thoughts and experiences of the main characters.

2) Conciseness. The translator cannot be redundant, the thoughts should be stated as concisely as possible, without unnecessary words and metaphors.

3) Clarity. Conciseness and brevity of the language of translation, however, should not cause vagueness of thought, its incomprehensibility, the main thing is not only to translate accurately, but also to convey to the reader the author's idea as clearly as possible.

4) Literature. As mentioned, the translation must comply with the norms of literary language. Each phrase must sound accurate and natural, without any hints of syntactic constructions of the original text. [2]

I describe my own translating experience. Initially, the story was translated in full, and then I focused on the work the coded note.

Firstly, I have to pay attention to the words, important for the solution of the riddle in ST. They were selected for separate translation. The whole riddle was built on them.

In the TT, synonyms or homonyms were selected for these words, the clue on which was kept and which would be clear to the Ukrainian reader.

If we read those homophones in order, we have: ***whine, seller, hour, manner***. And translating to their homophones: ***Wine cellar our manor.***	Якщо ми уважніше прочитаємо ці літери, розділяючи слова в інший спосіб, матимемо таку картину: ***винний***, наслі***по гріб***, не***має ток***сичнішого. Перетворивши на їхні омоніми, маємо: ***Винний погріб, маєток.***

After translating the key words, the text of the note was adjusted to the words selected in the Ukrainian version.

Then the following approach was used: to remove all punctuation marks, so that the text was read as if "in one breath", which is almost equivalent to ambiguity. It gave an opportunity for permutation of pauses between words to form new words and read the text through a new perspective. At the same time, the victim's (Edgar Nettleston) specialty changed and expanded, because the approach in translation required it. In the ST, it was only a semantics. While in the TT, he was also interested in punctuation which has drawn the attention.

It's all written in lower case. <u>My husband was a stickler for correct grammar</u>. I refuse to believe it doesn't mean something.	Тут все написано малими літерами, до того ж без розділових знаків. <u>Мій чоловік був схиблений на правописі</u> <u>та ще й мав пунктик на цій пунктуації.</u> Я б ніколи не повірила, що це випадковість.

The attention of translation while doing transformations is focused not only on the note, but also on the story's end. The detective found the cherished paper in a smaller box (TT). The title of the story refers to this:

"The Case of The Lower Case Letter" – "Справа малих літер"

Most of the wine lay unpacked on racks but in one corner ***two cases*** sat stacked, one on top of each other. Carefully, I opened the ***lower one.***	Більшість пляшок лежали на полицях, але в дальньому кутку я помітив ***два запакованих ящики: великий та малий.*** Я обережно відкрив ***меньший.***

The word "case" in English is ambiguous. "Lower Case Letter" - in this combination, the meaning is " мала літера ", otherwise - "ящик". Another translation transformation is "lower" – "small" ("нижній" – "малий": letters' feature – reference to box size).

So dealing with:

1) Coded note

"edith. i'm not going to ***whine***, i've had a good life. i've found wealth and happiness as a teacher, a ***seller*** of knowledge. but i find myself depressed beyond hope ... and so i'm choosing the ***hour*** and ***manner*** of my own demise. i have treated you badly. i demanded you ***dyed*** your brown curls blonde. i thought i could ***buy*** you when i should have *won* your love. i called you a ***witch***. i'd complain: ***where's*** the woman i married? i said you ***ate*** too much. if i wanted change, i could have used a ***carrot*** rather than a stick. you probably wanted to ***wring*** my neck. forgive me. farewell."	"едіт це я у всьому ***винний*** я своїми ж руками викопав собі могилу я рухався наслі***по гріб*** мене чекав не***має ток***сичнішого за мене чоловіка але я все ж таки знайшов себе я став тим хто ***вбиває*** у голови юних створінь знання та прищеплює тягу до нового та кожен день вертаючись додому я питаю хто той що дивиться на мене з дзеркала хотів би я усе змінити я міг ***мати*** тебе але ***восьмикратно*** втрачав свій шанс хотів би я повернути час назад це я змусив тебе повідбивати ***каблучки*** тупцяючи від злості вибач мені прощавай"

2) Detective's conclusion, exposing the killer

The final homophones: dyed buy won witch where's ate carrot wring. That is: died by one which wears eight carat ring."	Останні омоніми: вбиває, мати, восьмикратному, каблучки. І вони означають: вбиває той, хто має восьмикаратну каблучку.

Conclusion: The studied example allowed to concider the stages of creating an equivalent translation. In the process of choosing the final version of the translation, translation transformations were widely used, such as: meaning expansion (the victim's specialty), lexical transformation of substitution ("lower case letters" and "lower case" - "нижній" – "малий", "справа малих літер" – "менший ящик"), note recoding (homophones and lowercase letters vs lowercase letters, punctuation, homophones and ambiguous homophones) to maintain functional adequacy.

The results of comparative analysis of the original text and the final version of the translated text allow us to conclude to achieve semantic proximity of the translation to the original text, it is necessary to find equivalents of non-equivalent lexical units of English through translation transformations.

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THE SIGNIFICANCE AND ROLE OF COLORONYMS IN PHRASEOLOGICAL UNITS OF THE ENGLISH LANGUAGE

Actuality of theme. Human life is impossible without communication. Every day we exchange news and useful information, share our thoughts and impressions, discuss current topics, so language and speech are very significant things for the society. Communication is not just a set of words, but also a competent construction of sentences, selection of correct vocabulary, adherence to a specific style of speech and many other factors. It is important to remember that a speech that contains not only simple facts, but also interjections and constructions, phrases, quotes and aphorisms sounds much more interesting and convincing.

The second half of the XX century was marked by the intensive development of phraseology as a science, thanks to which it stood out as an independent linguistic discipline. Different scholars (in particular: V. Vinogradov, Charles Balli, V. Mokienko, O. Kunin, O. Shakhmatov, L. Skrypnyk, etc.) have a significant interest in the issue of coloronyms in the phraseological fund of the English language. However, despite numerous studies, many issues of this problem remain understudied.

The research aim is the analysis of phraseological units of the English language with color components and identification of the influence of color and word symbolism on a person.

The results and discussion. At the heart of psycholinguistic research, language is considered as a phenomenon of human mental activity. It is language that helps us to describe everything that happens around us. The most vivid and emotional lexical units are phraseological units – phrases that are semantically indivisible and are reproduced in the finished form, as well as have emotionally expressive color and figurative meaning. Phraseological units may contain various components such as: onomastic (Achilles` heel), toponymic (Go to Halifax), somatic (a dab hand), zoonymic (rains cats and dogs). The most common and most commonly used are phraseological units, which include the element-coloronym. Coloronym (from Latin color – color, Greek onima – name) – lexeme, denotative meaning of which is the name of color [2].

Color has attracted the attention of scientists in various scientific fields and today it is the subject of many linguistic studies. It's no secret that color has a significant impact on human psychology and each color affects the individual in different ways. It is obvious that the color scheme in different languages is represented by peculiar lexical units and, in turn, coloronyms participate in different ways of word and phrase formation [3]. That is why the color picture of the world of each language is formed by a special "lexical palette".

Color perception of the world is reflected in the lexical and in particular phraseological system of language. The ability of certain colors to serve as a symbol of a certain phenomenon is related to the peculiarities of the interaction between color and human cognitive and emotional processes. Accordingly, the relationship between color names and their meanings are reflected in the minds of native speakers.

According to the results of research presented in the work "Coloronyms in the structure of phraseology in English" the largest number are phraseological units with the coloronym black (24.71%). In second place are phraseological units with the component blue (16.86%). Next in descending order are the colors white (15.01%), red (14.31%), green (9.47%), yellow (6.47%), rosy / pink (3.24%), gray (2.78%), brown (2.54%), purple (0.69%), orange (0.23%). Among the phraseological units there are those that include two or more coloronyms. They account for 3.69% of the analyzed phrases [1].

In most idioms, it is the coloronym that carries a significant frequency of the phraseological unit and affects its meaning. To prove this point, we present two identical idioms that differ only in color: to see through blue glasses (to see through something gloomy) and to see through rose-colored spectacles (not to notice flaws, shortcomings, to idealize something, someone). Pink is associated with happiness and something pleasant, and blue often symbolizes something sad and depressing, so the meaning of these phraseological units will be antonymous.

To get to know more about the linguistic relationship of color symbolism and words we created a questioning, in which students and professors of Zhytomyr Polytechnic State University and other respondents (201 persons) took part. Relying on the results of our research we made a conclusion that in most cases black color has negative meaning (in (someone's) black books; blackmail someone), white is associated with something pure (white man; white hat), yellow often symbolizes fear (yellow-bellied), a green is for envy (look through green glasses) or young and unexperienced person (greenhorn). Red color often reminds of fury (see red), but sometimes it may mean debts (be in the red) or resist everyday life, denoting something festive and bright (red-letter day). Grey is a color of uncertainty (grey area), and silver is associated with something simple (be given something on a silver plate/platter). Gold color usually stands for wealth (golden handshake). The idioms containing few coloronyms have a great number of different meanings (black and white (put something down) in black and white). Summing up all the information, we reached a conclusion: a favourite color of most asked people is green, but they still wear mostly dark clothes and consider black to be the most popular, so it is important to add a little color in grey weekdays and sometimes still leave pink glasses and not be afraid to be white crow.

Conclusion. Phraseological units with coloronyms are of interest for research both in the field of traditional phraseology and in linguoculturology. They are national-specific units of language that accumulate the cultural potential of the people and reflect in their semantics the long process of cultural development of the people, that is why their components capture and transmit from generation to generation cultural attitudes and stereotypes, standards and archetypes [1]. Color perception of the world is reflected in the lexical and in particular phraseological system of language. The ability of certain colors to serve as a symbol of a certain phenomenon is related to the peculiarities of the interaction between color and human cognitive and emotional processes.

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THE SECOND LANGUAGE ACQUISITION THEORY AND ITS BENEFITS IN EDUCATIONAL PROCESS

Now we live in the information society. It means that information moves freely between different countries and people have to work with information which is written on different languages. And if fifteen years ago someone who speaks two foreign languages was considered as a very educated person, now every person who works with information must speak at least two not similar foreign languages. In fact most of people do not know foreign languages on the required level. Some reasons of that fact are: 1) we think that a foreign language is just like any other discipline, but it has very specific peculiarities which we must take into account while studying; 2) too long time intervals between classes; 3) the way we learn foreign languages. We learn a foreign language in similar way like we learn our native language. For example, we begin studying a foreign language with the alphabet. But we miss the fact that before we begin learning the alphabet or grammar in our native language we can already speak it and understand the speech of others. That is why we want to focus your attention on the second language acquisition theory (SLA) and analyse how we can use some benefits of it in order to improve the process of foreign language learning.

SLA research began as an interdisciplinary field, because of this, it is difficult to identify a precise starting date. However, two papers in particular are seen as instrumental to the development of the modern study of SLA: the Pit Corder's essay *The Significance of Learners' Errors* (1967) and the Larry Selinker's article *Interlanguage* (1972) [1, p.14].

Also we must know what we mean under the Learner language. Learner language is the written or spoken language produced by a learner. It is also the main type of data used in second-language acquisition research [2, p. 4].

The direction of this theory is very wide and covers such sciences as psychology, linguistics, sociology, etc. But this is modern view in studying process which will make this process more productive and interesting for learners. The authors of this theory says that needed period of time for second language acquisition depends on the age of a learner, a language family, his emotional and psychological condition and the environment (how often he can meet Learner language in daily routine). All of these factors have positive or negative influence on a learner. For example, a child while learning a foreign language creates his own learning style and it makes the learning process more flexible, but an adult while learning uses the learning style which was created before (in his childhood) and this fact makes this process more limited.

Also we have two main mistakes which often make learners while learning foreign languages –big pauses between lessons and learning grammar without practice. According to some facts in SLA theory a learner must learn grammar only if he is really interested in it, or when he understands the importance of its knowledge. Also, according to the theory the studying isn't an algorithm where a learner moves from one step of a sequence to the next in an orderly fashion. There can be considerable variability in features of learners' interlanguage while progressing from one stage to the next one [3, p. 25].

During the studying process a learner creates his own language which in SLA is called interlanguage. An interlanguage is an emerging language system in the mind of a second-language learner. A learner's interlanguage is not a deficient version of the language being learned filled with random errors, nor is it a language purely based on errors introduced from the learner's first language. It is a language with its own systematic rules. It is possible to view most aspects of language from an interlanguage perspective, including grammar, phonology, lexicon, and pragmatics. As a result a learner tries to learn a foreign language using methods which worked when he learns mathematics or chemistry but these methods does not work when he learns a language. The authors of SLA are still investigating the process which arises in the brain of a learner while studying a foreign language.

According to some researches we have several ways to improve the quality of studying foreign languages in the classroom. First of all the period of learning languages must be not shorter than 24 weeks or 600 classroom hours without long intervals in learning during this period. The second way to improve the studying process is to divide the studying process into two phases:

1. First Phase (Communication of Meaningful Content). During this phase a learner tries to communicate using the Learner language and do not concentrate on the formal accuracy. The learner will create his own data base of words and terms which are necessary for the next phase.

2. Second Phase (Formal Accuracy). During this phase a learner uses the knowledge which he has already obtained during the first phase. The learner understands that this knowledge is important for him and he improves his skills by learning grammar.

SLA also focuses on other different problems (for example, the problem of learners' motivation) which appear while we learn foreign languages in order to find the right solutions. The solutions which we describe in this paper can help to improve the studying process and make it more productive for learners. The SLA theory can be applicable not only for the second language learning, but also for the next foreign languages which learners will try to learn.

As cadets of military institute we learn the algorithm and coding systems. These disciplines require the knowledge of programming languages which are often written in English. A great deal of information related to these disciplines is in English too. Moreover, the scripts and loops are intuitively understandable better if a coder knows English and Mathematics. That is why we think it is useful to learn these disciplines not in Ukrainian, but in English from very beginning,

When I become an officer my job will be connected with processing of a huge amount of data of different types in English. Of course I can process such information by using different translators but they often change the meaning of author's ideas. Another reason why I need to speak English well is that in future I will work together with specialists from different countries and the only way to work effectively is to communicate with them freely.

One year ago I had a chance to take a part in psychological courses which were conducted by the specialists form Lithuania. They have been working in the psychological sphere for ten years but they don't know the Ukrainian language, so they delivered classes in English. As a result I understood only twenty five per cent of the information of the course because I do not know English enough. That is why to study some major disciplines in English is really very important and urgent issue.

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FACT-CHECKING AS A MEANS OF STUDENTS CRITICAL THINKING DEVELOPMENT

In our time, the age of a global revolution, challenges of modernity demand new adaptations and a unique educational paradigm. Our prosperity requires real progress, a revolution in education, because traditional methods of education and outdated teaching model have not been meeting modern requirements for a long time already.

The four-dimensional UNICEF model highlights 12 basic life skills, one of which is critical thinking [1], which in turn is one of foundations of "soft-skills" - non-cognitive skills that have become a driving force in today's world. These include personality traits and communication skills that are necessary for success in careers. They characterize how a person interacts in their relationships with others [4]. Attention to critical thinking benefits has been formed since ancient times. The method of Socrates [2], a methodology named after the Greek philosopher, is one of the oldest tools for teaching this skill. Centuries later, the Roman emperor Marcus Aurelius emphasized in his meditations: “All we hear is a thought, not a fact; all we see is perspective, not truth.”[3] Currently, critical thinking is a basic academic skill that teaches to question one's own knowledge and information. It is essential for those who work on tasks and do research. Critical thinking contributes to success at all stages of their careers.

Fact-checking is a process of doubtful facts and statements verification. It used to be applied only by journalists to analyze politicians and public figures speeches and claims. Nowadays, this investigation method has become more widespread among commons, often when there is a need to check truthfulness of a certain media publication [6]. Fact-checking is an integral component of a critical thinking process, which reflects an ability to distinguish reliable facts from unreliable ones and evaluate events [16].

At present, Ukraine has not developed comprehensive characteristics on fact-checking and critical thinking concepts combining. In addition, a sufficient theoretical substantiation of a fact-checking role in students critical thinking development has not yet been developed, which causes **relevance of this study**.

The aim of this study is to acquaint students and academicians with a fact-checking concept and its interconnection with critical thinking. This research will give impetus to a realization of importance of "soft-skills" development in future professionals and, research and teaching staff.

Fact-checking, as a practical activity, is not yet a full-fledged object of scientific research in our country, and a small number of publications are devoted to it. In particular, a close connection of fact-checking media resources with a population critical thinking formation was substantiated [7]; problems of information security, ways to overcome it were studied [8]; history of information confrontations methodology origin and development, changes in information space in a process of information confrontation are also under Ukrainian scholars research [9]. A large number of researches are devoted to fake facts manipulation study [10, 11, 12].

With a transformation of values, globalization, information and technological adaptability, fake news is highly developing, so the verification of facts has become very relevant. Unlike many European countries and the USA, where such platforms as Snopes.com, Factcheck.org [5], InsideClimateNews have been created, with a help of which it is possible to distinguish fake information from reliable one, in Ukraine there are no professional resources to verify statements and news, as well as not yet explored complex characteristics of fact-checking concept, its specifics, ways of integration into educational process. I believe that fact-checking would be an effective way for mastering and developing students' critical thinking.

Currently, fact-checking is a successful tool in a fight against information and political manipulations, which are spreading at every step at a frantic pace [13]. It is becoming clear that teaching fact-checking as a minor discipline in every higher education institutions is an inevitable and mandatory process. With an appropriate lecturer support, a student shall learn to give an objective assessment of each source of information in order to determine the reliability before referring to it. Before using statistics, citations, or research to support their arguments in a discussion or task, students must carefully verify their truth by finding evidence that does not suffer from bias. In this way, through careful monitoring by a lecturer and student's persistent work, critical thinking will develop qualitatively. Specialists who are fluent in «soft-skills» are the basis of modern successful life in a welfare country. Such skills are extremely important for everyone's well-being, as they help to identify and assess factors that affect behavior and mood. Critical thinking does not allow us to fall victims to manipulation, protects against negative influences and radicalization, it is necessary for a person throughout their life. It can be formed and developed at any age.

In order to promote critical thinking development, a lecturer must:

1. have necessary knowledge base, with which he can support students when they are more immersed in a content;
2. be open to new challenges of students, not presenting themselves as only source of knowledge;
3. encourage students to see the big picture by questioning and challenging existing beliefs and practices;
4. to structure pairs so that students have an opportunity to cooperate qualitatively and develop creative forms of joint responsibility;
5. encourage critical action and reflection; teach to transfer processed cases in a situation outside a university [14].

In my opinion, with a help of critical thinking, a person can reach the top of the Maslow pyramid [15]. A post-industrial world needs highly qualified specialists who not only memorize information, but also know how to analyze it, draw conclusions, and find a way to solve global problems. In addition, critical thinking is crucial for economics, it helps to solve and anticipate new economic challenges and social risks. Today, people who are able to think critically are the basis of educated citizenship and democracy, as they are able to see a world's clear picture, omitting propaganda and manipulation. In the educational process, this skill forms an independent person who is not afraid to make decisions, take responsibility, forming their own thoughts. As a result, it will lead to significant changes not only in education but also in other fields of state policy. With a help of critical thinking, students, leaving the university, will become a broad and adventurous thinkers, able to plan their time, think strategically, generate their own innovative solutions to various problems, be able to challenge modernity to overcome global catastrophes and inequalities.

Conclusions. Thus, critical thinking has been, is and is going to be an important component of a successful life. Socrates and Marcus Aurelius paid great attention to it in their guidelines, and in the 21st century, UNICEF puts it on a par with 11 other life skills. In addition, our future world will be tightly connected with mental creativity, which is developed through critical thinking. Verification of facts is a part of this process, which reflects an ability to distinguish reliable facts from unreliable and assess certain turns of events. Thus, fact-checking can be a tool for mastering and qualitatively developing critical thinking in students. With a lecturer's proper support, a student must learn to give an objective assessment of each information source in order to determine its reliability before referring to it. In order to promote critical thinking, an educator must have a knowledge base behind which he can support students as they delve deeper into a content, be open to new challenges, encourage students to see the big picture. Fact-checking, with new methods of teaching and proper justification of specifics, is going to become an effective means of students critical thinking development.

Prospects for further research are the development of a new critical thinking development methodology based on fact-checking technologies, identifying possibility of its implementation in an educational process. It would be able to achieve, by establishing an essence and theoretical substantiation of concepts, developing complex characteristics about fact-checking and critical thinking specifics; experimentally identifying disadvantages, advantages and prospects of such interaction. These steps will help to understand effectiveness of a new methodology, as well as a means of its implementation.

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FORMATION OF MOTIVATION FOR YOUTH ACHIEVEMENT BY MEANS OF NON-FORMAL EDUCATION

Today, the problem of motivation is quite important. Each person is motivated to act by different factors in professional, educational and creative spheres. Recently, we have been faced the problem that young people have a low level of motivation for any activity. Therefore, the purpose of this article is to analyze approaches to the study of motivation achievement and define the concept of non-formal education as a factor of contributing the formation of motivation achievement.

It is necessary to mention that people have been interested in the problem of motivation since ancient times. So, the famous ancient philosopher Socrates asserted that the main good feature of a person is knowledge, the main source of which is self-knowledge. His well-known phrase "Know Yourself" explains the essence of the activity of any individual. He said that only in the process of knowing ourselves, we can discover the potential a person has [1; p. 36].

The philosopher G. Hegel noted that motivation is always in the nature of a human being. The will of a person, as he said, is determined by his motives, intentions and aspirations [2].

In D. McCleland’s work the concept of "the need for achievement" is analyzed. The scientist focuses on the fact that the need for achievement determines the following types of motives: the motive for achieving success and the motive for avoiding failure.

Calling attention to the problem of motivation, it should be said that the concept of motive is defined as "a reason that encourages an individual to take any action" or "a conscious incentive to the activity of a subject, individual, or social group" [3].

Motivation can be divided into external and internal. V. Klimchuk gives the definition of internal motivation and points out that "internal motivation has both situational and dispositional components. Satisfaction or dissatisfaction of basic psychological needs depends on the external conditions of the individual and is reflected in the subjective attitude of the individual to the external conditions of activity. [5, p. 71].

While studying the motivation of young people's achievements, it is necessary to touch on the issues of non-formal education. Researcher I. Biryukova says that non – formal education is any education that is received or can be received outside the system of formal basic or additional education. She also highlighted the factors of high efficiency of non-formal education: a high degree of motivation; purposefulness, meaningfulness of educational activities; flexibility that is necessary to meet various individual needs of students using audio and video tools as various forms of communication with students; learning objectives [4].

Taking everything into account, it must be said that achievement motivation is an incentive to achieve success in any activity. Non-formal education is based on a motivational component and generates interest in learning.

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THE ROAD TO THE DEATH OF "THE FATHER OF MADNESS"

There are many mysterious individuals in the world of literature, but in my opinion, one of the most mysterious is the cult writer Howard Phillips Lovecraft, who became world famous only after his death at the age of 46. All his life he suffered from mental and physical health problems.

There are many mysterious individuals in the world of literature, but in my opinion, one of the most mysterious is the cult writer Howard Phillips Lovecraft. The author of the "myths of Cthulhu" became world famous only after his death at the age of 46, and was nicknamed by his fans as "The Father of Madness". All his life he suffered from mental and physical health problems. Our study aims at examining the reasons of death of the writer who made a great contribution to modern literature and culture in general.

The first thing that affected the writer's mental health was that his father was sent to a mental hospital because the latter said and did strange things. Throughout his life, Lovecraft himself did not believe in the diagnosis of doctors and claimed that his father fell into a paralytic state due to lack of sleep and overfatigue.

After his father was hospitalized, the writer lived in a family home with maternal relatives, two aunts and a grandmother. At that time, grandfather Whipple replaced Lovecraft's father. The grandfather influenced his grandson's literary tastes by encouraging him to read classical literature and telling him scary stories that the grandfather himself invented by frightening and impressing his grandson.

Grandmother's unexpected death also affected the young writer. He recalled that the event plunged his family into darkness. His mother and aunts in black mourning dresses frightened five-year-old Lovecraft, and after that, he began to be troubled by nightmares that haunted him all his life and were depicted in his works. At this age, the future master of the word became interested in chemistry, reading astronomy all night, he slept all day, and because of this he had a pale skin tone. He also studied the books on anatomy available to him in the extensive library. Studying the features of human reproduction, which he did not know, he found out that it almost killed his interest in it. Lovecraft began attending elementary school at the age of eight, but was expelled a year later due to health problems and a tendency to argue.

In the spring of 1904, one of his grandfather’s Whipple largest enterprises failed. As a result, the old man's health deteriorated and he died of a stroke a few months later.

After the death of old Whipple, Susie (the writer's mother) was unable to support the Phillips estate and moved. Lovecraft called this time one of the gloomiest in his life, noting in a letter in 1934 that he no longer saw meaning in life. In the autumn of the same year he went to high school where he was often suspended from classes due to his nervous breakdowns. During school, he shows good knowledge of physics and chemistry, but suffers from insufficient knowledge of mathematics, which is then mentioned in the letters. A letter describing 1908 stated that he was suffering from headaches, insomnia and general nervous weakness. Lovecraft did not finish school and did not attend it again, and this shattered his dreams of studying at Brown University.

A few years later, his mother was admitted to the same mental hospital as the writer's father due to a nervous breakdown. In 1919, the writer's mother died because of complications of the operation. And Lovecraft, in addition to his childhood attacks of chorea and cold intolerance, fell into an atypical depression.

After marrying to Sonny Green on March 3, 1924, from which all refused him, the author moved to her Brooklyn apartment at 793 Flatbush Avenue. Sonny Green soon lost her business, and her assets were lost due to the bankruptcy of the bank, during that time she fell ill. Lovecraft tried to support his wife with a permanent job, but could not find it because of the lack of his previous experience. His wife moved from the writer to Cleveland to find a normal job. In addition to previous failures, Lovecraft's apartment at Clinton Street 169 was was robbed, leaving only the clothes he was wearing. In 1926, moving to Providence, he began creating, forgetting about normal life. After living separately for a long time, Green and Lovecraft agreed to divorce.

The writer could never cover his expenses by selling his stories and doing paid literary work for others. He lived modestly, using a legacy that was almost exhausted. Sometimes he went hungry to pay for postage.

As a result of the Great Depression, he moved to socialism, condemning both his beliefs and the growing wave of fascism. Lovecraft's physical health was deteriorating. He suffered from the disease, although he thought it was the "flu". He was examined a month before his death and was diagnosed with bowel cancer. The writer lived in constant excruciating pain until his death on March 15, 1937. He kept a diary of his disease and recorded his feelings until he was able to hold a pen.

The study shows that the causes of Howard Phillips Lovecaft's early death became: negative impressions of his father's death and subsequent deaths of his loved ones, his congenital and acquired mental and physical diseases, despair and unrecognizability during his lifetime. The latter one resulted in the lack of money, that is why, the writer had an unhealthy lifestyle that led to his deadly disease.

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RHYTHM AS ONE OF THE BASIC FACTORS OF HUMAN BEING IN ARISTOTLE’S “POETICS”

The article explores rhythm in all kinds of human’s speech and artistic activity as an integral part of nature as it is presented in “Poetics” by Aristotle. The concept of rhythm as metre on poetry and its meaning in human’s life was studied by ancient philosophers. Contemporary scholars regard the links between physical and psychical human’s harmony in Aristotle’s concept of rhythm [2], developing his idea of rhythm in music and in poetry [3]. Rhythm as a form organizing chaotic artistic material unites poetry and music and reflects the very basic features of human’s life [4]. Cambridge dictionary defines rhythm as a strong pattern of sounds, words, or musical notes that is used in music, poetry, and dancing [6].

Studying literature is an exciting experience. We are able to know more about the principles of people’s life centuries ago, as well as about their habits and their interests. But today, with the help of literature, I want to show that ancient people knew a little more about rhythm than we do. Many people think that rhythm it is just in music and dance (which is definitely obvious) but let us expand our vision and understanding of rhythm. This study aims to consider what the rhythm means. I explore the meaning of rhythm in Aristotle’s “Poetics” [0; 5] where it is regarded as one of three main components of imitation which is the main human’s feature and the basis of any artistic activity: “The imitation is produced by rhythm, language, or harmony, either singly or combined” [**Ошибка! Источник ссылки не найден.**].

Firstly, I want to say, that rhythm is an integral part of human’s life and is present everywhere. Music cannot exist without musical instrument, harmony and rhythm “Thus in the music of the flute and of the lyre, 'harmony' and rhythm alone are employed; also, in other arts, such as that of the shepherd's pipe, which are essentially similar to these” [5]. And vice versa, rhythm is impossible without harmony. Human’s breath and heartbeat can be considered the source and prototype for the concept of rhythm in artistic practice. It is like human cannot exist beyond heart, or like yin without yang. As Aristotle claims, dance consists of rhythm which, in turn links it directly with action and drama: “In dancing, rhythm alone is used without 'harmony'; for even dancing imitates character, emotion, and action, by rhythmical movement it is very important for this kind of activities” [**Ошибка! Источник ссылки не найден.**]. How we will know that steps are taken in correct beat? As Aristotle says, via rhythm dancing imitates character, emotion and action [5]. From these facts, one may conclude that everything has some special purpose.

Rhythm in poetry is a point of specific interest for the Ancient Greek scholar: in his work, Aristotle mentions that iamb it is more suitable for dialog (presumably we do not even think about it): “Once dialogue had come in, Nature herself discovered the appropriate measure. For the iambic is, of all measures, the most colloquial: we see it in the fact that conversational speech runs into iambic lines more frequently than into any other kind of verse; rarely into hexameters, and only when we drop the colloquial intonation” [**Ошибка! Источник ссылки не найден.**]. Aristotle differentiates various metres in their correlation with various spheres of human’s communication and artistic imitation with the accent on iambic, elegiac, or any similar meter [5], which allows to conclude that rhythm of speech varied according to the kind of activity and theme of the discourse.

At the same time, rhythm exists independently: we can observe rhythm in nature. Following the natural rhythm of day and night, light and dark, dry and wet or cold and warm periods of the year, a human aligns his/her life with the life of nature, and this understanding becomes a way to survive. In my opinion, Daniel Defoe’s Robinson Crusoe can be regarded as an example of a person who understood the meaning of rhythm in nature: he watched how other animals lived and started to imitate them in some way. Therefore, in imitation, we can trace rhythm and harmony. Through the lens of the century, we can see that rhythm is something that people cannot exist without.

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USE OF LEXICAL UNITS '*CORONAVIRUS'* AND '*COVID-19'* IN ECONOMIC DISCOURSE

The commonly used dictionary states "coronavirus is any of a group of RNA viruses that cause a variety of respiratory, gastrointestinal, and neurological diseases in humans and other animals" [1]. As for the second meaning of *'coronavirus'* given by an everyday-use dictionary, it is defined as: "an illness caused by a coronavirus, especially: COVID-19" [2].

The medical meanings of *'coronavirus'* are provided by a special terminological dictionary as "1: coronavirus is any of a family (Coronaviridae) of large single-stranded RNA viruses that have a lipid envelope studded with club-shaped spike proteins, infect birds and many mammals including humans, and include the causative agents of MERS, SARS, and COVID-19"; "2: an illness caused by a coronavirus, especially: COVID-19" [3]. The descriptions of meanings for the word *'coronavirus'* in non-terminological sources show that the lexical unit *coronavirus* has come to the general use with the precise medical definitions, which have not changed for a common reader. The same process has taken place with the word *'COVID-19'* in its both meanings [4],

[5]. It means that a wide circle of people, whose profession is far from medicine, is interested in this problem and carefully selects information. The comparison of the definitions researched above has drawn us to the conclusion that both lexical units in their two meanings have entered the everyday language as a result of determinologization.

According to Fiona McPherson, the senior editor of the Oxford English Dictionary (OED), back in December 2019 the word *'coronavirus'* appeared only 0.03 times per million tokens (tokens are the smallest units of language collected and tracked in the OED corpus [6]. The lexical unit *'Covid-19'* was only coined in February 2020, when the WHO (World Health Organization) announced the official name of the virus [7]. However, in April 2020, the figures for both *'Covid-19'* and *'coronavirus'* skyrocketed to about 1,750 per million tokens. Thus, we can observe that two terms entered everyday use at roughly the same frequency. The special coronavirus-related updates give us a glimpse into how language can quickly change in the face of unprecedented social and economic disruption. For example, one of the effects of the pandemic is that it has brought previously obscure medical terms to the forefront of everyday speech [6].

Speaking of *Covid Economics*, launched in late March 2020, it is a free online publication of CEPR (The Center for Economic and Policy Research). *Covid Economics* was created to spread fast the research on the rapidly growing Covid-19 epidemic. Along with VoxEU (CEPR's policy portal), which presents brief analyzes of epidemic and other economic issues, *Covid Economics* offers more formal investigations based on clear theories and empirical evidence.

The Covid-19 breakthrough is challenging in all areas of the economy, including, but not limited to, health care, industrial organization, macroeconomics, finance, history, development, political economy, and public finance, both theory and empirical evidence. The publication welcomes presentations in all these areas and seeks to have a wide geographical coverage.

Covid Economics is special in three aspects. It presents real-time research. Submitted articles are evaluated quickly, within five days, and appear online immediately. Secondly, articles are checked by editors for quality and relevance. Verification differs from judging in the sense that the decision to print or decline is made without the possibility of revision and re-submission. Thirdly, papers are pre-printed versions, it means that copyrighted authors can submit approved reviews later.

As people and economies around the world are exhausted by the effects of the new coronavirus (COVID-19), one thing is clear: at present, the facts come at a high price. The value of reliable data has never been more evident than during the months after the appearance of COVID-19 in China in late 2019 and its rapid spread around the world.

While studying the economic dictionaries, we found out that the words *'coronavirus'* and *'COVID-19'* were not presented there. This indicates that these lexical units have not obtained enough economic significance to be placed in dictionaries of Economics. However, we have come across many illustrations of ‘coronavirus’ and ‘COVID-19’ in the economic environment created by the issues of *Covid Economics*.

At first, let us consider some examples of the use of the word *‘COVID-19’*: “We investigate the impact of 2020 COVID-19 rental eviction moratoria on household well-being” [8, 30] “Using a sample of 125 countries, we evaluate the effect of the pre-Covid-19 fiscal space on the size of the fiscal stimulus packages in response to the virus” [8, 76]. “We find that the increased gender gap in the household division of labor during the first wave of COVID-19 pandemic persisted during the second wave” [9, 65]. “This paper investigates whether international exposure played a role in how companies were impacted and which strategies they used in response to the COVID-19 crisis” [9, 35]. “The tests are based on a unique firm-level data set covering 4,433 enterprises in 133 countries, collected by the International Trade Centre under the COVID-19 Business Impact Survey” [9, 35]. “We study the household consumption responses to Japan's COVID-19 unconditional cash transfer program” [9, 6]. “We derive an analytic expression describing how health costs and death counts of the Covid-19 pandemic change over time as vaccination proceeds” [9, 86]. “We provide perspective on the possible global economic and financial effects from COVID-19 by examining the handful of similar major health crises in the 21st century” [10, 60]. “Our baseline survey was administered on October 16th, 2019 among graduate students in Wuhan prior to the COVID-19 outbreak” [10, 110]. “Universal adoption will likely slow the spread of the Covid-19 virus by reducing transmission from asymptomatic individuals” [10, 151]. As we see, the quotations involve the word *‘COVID-19’* in its general meaning.

We are also interested in finding examples with the word *‘coronavirus’* and its combinations and analyze them according to their meanings. “The coronavirus disease 2019 pandemic has impacted the world economy in various ways” [8, 147]. “Using past coronavirus outbreaks as an instrumental variable, we show that countries with past experience were able to contain the virus in a smart way, reducing transmission and deaths while also experiencing higher economic growth in 2020” [8, 99]. “Relative to a baseline in which only the infected and at-risk populations mitigate the spread of coronavirus, we estimate that total benefits of suppression policies are between $605.9 billion and $841.1 billion from early March 2020 to August 1, 2020” [11, 133]. “The spread of the novel coronavirus worldwide in 2020 forced governments to impose strict containment measures in the first wave of the pandemic” [9, 36]. “To address possible endogeneity concerns and estimate the effect of "smart" types of containment, we employ a two-stageleast-squares approach, where past experience in containing coronavirus epidemics is used as an instrument for death rates” [8, 102]. “In this paper, we offer a cost-benefit analysis (CBA) for the legal orders implemented across the United States to address the first wave of the coronavirus” [11, 134]. “To calculate total costs of coronavirus suppression, we take a “top down” approach by multiplying the incremental daily costs to GDP of enforcing suppression policies by the duration of suppression policies, measured in days, that were enforced between March 2020 and August 1, 2020” [11, 137]. “The most consequential benefit of government coronavirus suppression orders is likely preventing deaths from COVID-19” [11, 137]. “These subjects believe that they have a higher exposure risk to the Coronavirus than those elsewhere” [10, 112]. “Our study proceeds as follows: the second section provides additional background on the Coronavirus setting in China” [10, 115].

The current study shows that the words *‘Covid-19’* and *‘coronavirus’* are always widely used in any economic context in their common meanings. The facts of their use in economic environment confirm that both lexical units have not changed their everyday meanings under the influence of the economic field yet, that is, they have not received any new meanings in the economic discourse.

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"POLYEQUIVALENT" TERMS: THE ELECTRONIC REFERENCE DICTIONARY

No teacher who is not creative
will undertake an ESP class.
M. Scheppegrell

It is universally acknowledged that much energy and time in second-language acquisition is devoted to studying how to teach English for Specific Purposes or Academic English by those who are linguists but not specialists in any special field. As future language teachers we should find ourselves being aware of the potentialities of using English as a tool for plunging into one's special field, terms being the most important stratum of vocabulary which can grant the access to special knowledge. In spite of the fact that there is a variety of information on the definitions of terms, professionalisms, nomenclatures (brand-names), their structure, their specific status and characteristics, there is a group of general technical and academic lexemes which can be called polyequivalent terms.

The problem is that one of the major characteristics of terms is considered to be monosemy though, in practice, polysemantic terms are many and varied. Polysemy results from linguistic and extralinguistic reasons due to the obligatory law of language evolution, integration among all branches of science and technology, the traditional linguistic triggers being metaphors or metonymy [3; 4]. We use the nomination "polyequivalent", not polysemantic, because general technical and academic words of diffused semantics are also included into the vocabulary under analysis, e.g. ***critical*** – *важливий (factor, condition); основний (dimension, hazard); суттєвий (differences)*; *критичний для позначення математичних і фізичних параметрів (temperature, pressure, angle, mass, point),* але можливі й такі варіанти перекладу «*вирішальний, першочерговий, відповідальний*».

The aim of our research is to compile the electronic reference dictionary of polyequivalent terms which relate to interbranch terminology, e.g.: *head, shoulder, neck*.

The dictionary is planned to consist of 2 sections:1) three-lingual dictionary (Ukrainian, English, Russian); 2) minitexts illustrating the functioning of the terms compiled. At present it includes about 100 entries, the volume which is presupposed by the requirements of an educational dictionary. Section 1 demonstrates the entry word in English, its translation into Ukrainian and Russian, and its definition: ***candidate***: варіант; тип. *Structural candidate* – варіант конфігурації конструкції. *Candidate material* – придатний матеріал; ***dramatic***: значний; суттєвий; наочний. *Dramatic change, dramatic increase*; ***practical***: практичний; доцільний;

раціональний; можливий; промисловий; серійний. *Practical physical and cost characteristics*.

The entries are put in alphabetical order. The entry words are shown in bold type, the additional information being in italics.

Illustrating minitexts are selected from the publications related to technical sciences, e.g. “Robotics”, “The Naval Architect” etc.

The electronic dictionary is adapted to the needs of students majoring both in technical and linguistic spheres; it is open-ended and can be accessed from various electronic gadgets [1; 2].

To sum up, ESP class has a distinctly purposeful orientation in English, its students bringing a reason for learning English and a real life context for its use. Therefore they should have well-developed learning strategies, responsibilities and available conveniently-structured reference sources.

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The aim of this study is to identify current knowledge about Europe, which is reflected in the linguistic consciousness of Ukrainians. According to a free associative experiment, an associative field for the word-stimulus EUROPE was formed, which has 96 different reactions. In the associative field, 4 main vectors of association were identified: legal, economic, cultural and emotional (with positive and negative assessment).

THE IMAGE OF EUROPE THROUGH THE EYES OF UKRAINIANS: PSYCHOLINGUISTIC ASPECT

According to R. Gavarkevich, without studying the picture of the world of any people, society's ideas about themselves and their actions, their activity in the world, as well as without studying another's culture, full understanding between many European nations is impossible [1, p. 260]. This opinion emphasizes the importance and relevance of psycholinguistic research, which reveals the vision of native speakers of the processes taking place in society.

A free associative experiment was chosen for our study. 75 people of different ages took part in the survey. Respondents had to indicate the first word that comes to their mind when reading the stimulus word EUROPE. Some respondents gave more than one answer, so the associative field has more reactions.

As a result of the analysis of experimental data, we formed the associative field of the word-stimulus EUROPE. The associative stimulus field of EUROPE consists of 96 different reactions, of which 48 single reactions:

freedom 8, order 5, civilization 4, culture 3, opportunities 3, progress 3, development 3, good roads 3, improvement 2, continent 2, euro 2, stability 2, feminism 2, tolerance 2, LGBT 2, equality 2, lifestyle, travel, integration, values, tourists, developed countries, catholicism, democracy, future, human rights, union, Ukraine, positive, legality, something big and united, history, higher standard of living, growing economy, high self-awareness security, normal life, prosperity, equality of rights, individual freedom, security of daily life, modern knowledge, discovery, world, European Union, part of the continent, well-groomed houses and streets, clean environment, justice, high standard of living, protection of human rights and freedoms, "man "Above all, not us, home, west, a very beautiful city where there are many different opportunities to be successful, solidarity, law, sacrifice of their own ultraliberal and stupid values, window, equality before the law, England.

Although, the most frequent associations show the most significant concepts in the perception of the stimulus "Europe". So, the most common reaction among respondents is freedom - 8, the second place - order - 5, the third place - civilization - 4 and other reactions, such as: culture - 3, opportunities - 3, progress - 3, development - 3, good roads - 3, etc.

Legal vector	***Economic vector***	***Cultural vector***	***Emotional vector***	
			Positive reactions	***Negative reactions***
Law	Employment	Culture	"man" above all	Not me
Freedom	Euro	Values	Opportunities	Sacrifice of their own ultraliberal and stupid values
Order	Integration	Tolerance	Progress	
Solidarity	Developed countries	Equality	Development	

Equality before the law	Democracy	Welfare	Civilization	
Human Rights	Union	Well-groomed houses and streets	Good roads	
Legality	Ukraine	Clean environment	Improve	
Security	Higher standard of living	History	Lifestyle	
Equality of rights	Growing economy		Travel	
Freedom of the individual	European Union		Normal life	
Safety of everyday life	Part of the continent		Future	
Justice	Continent		Positive	
	England		Modernity	
	Tourists		Knowledge	
			Discovery	
			World	
			A very beautiful city where there are many different opportunities to become successful	
			Home	

The presented material, as the reaction of the participants of the experiment to the stimulus EUROPE, shows that the reactions of the respondents have four clear vectors: a) the legal vector; b) economic vector; c) cultural vector; d) emotional vector (which includes positive and negative reactions).

Accordingly, the legal vector includes such reactions as: law, freedom, order, solidarity, equality before the law, human rights, legality, security, equality of rights, individual freedom, security of everyday life, justice, high self-awareness. These words characterize Europe in terms of the legal system, which is focused on establishing the principle of sovereignty of the people, the subordination of the state to society, protection of human and civil rights and freedoms, and is an example for its implementation in Ukraine.

The economic vector consists of the following reactions: employment, euro, integration, developed countries, democracy, union, Ukraine, higher living standards, growing economy, European Union, part of the continent, continent, England, tourists. Such associations can be explained by the fact that the European region occupies a leading position in the world economy in terms of industrial and agricultural production, exports of goods and services, gold and foreign exchange reserves, the level of international tourism.

Next we consider the cultural vector. After analyzing the answers of the respondents, we obtained the following associations: culture, values, tolerance, equality, well-being, well-groomed houses and streets, clean environment, history. Undoubtedly, European culture is one of the most important components of the world cultural process, so it gives impetus to the development of cultural activities in Ukraine.

The emotional vector has two components that demonstrate the attitude of Ukrainian society to the European community:

1) Positive reactions: "man" above all, opportunities, progress, development, civilization, good roads, improvement, lifestyle, travel, normal life, future, positive, modernity, knowledge, discovery, world, very beautiful city where there are many various opportunities to become successful, home.

2) Negative reactions, such as: not us, sacrifice of their own ultraliberal and stupid values.

However, based on our associative research, we can conclude that the call sign and focus on Europe and its values still prevails. Therefore, Ukraine can confidently move forward and achieve positive changes in effective reforms and the formation of a modern European state with its own identity.

To sum up, the associative field of a particular stimulus, which we obtain as a result of a free associative experiment, serves as material for the study of linguistic consciousness. It represents a certain area in the linguistic picture of the world, so the associative field is a component of linguistic consciousness. In the organization of the associative field, the periphery is distinguished as a structural component of meaning. In general, the associative meaning of the stimulus EUROPE is formed by the most recurring reaction of freedom, among the emotional reactions are significantly dominated by those that carry a positive assessment of the word-stimulus.

The prospect of further research is to expand the circle of informants, which will make it possible to identify a clearer core of the associative meaning of the word-stimulus EUROPE.

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THE USE OF ANGLICISMS IN THE ITALIAN AND UKRAINIAN TECH PUBLICATIONS

As an Italian and English Translation Major our research interests lie primarily in the area of comparative linguistics and especially in the age of technological development, it is highly significant to understand how much English as the language of international communication affects other languages. That's why we chose and investigated this phenomenon.

The present research is dedicated to the comparative analysis of loanwords from English and how they have transformed into other languages. In earlier studies, namely in the Master's Dissertation A.-M. Björkenval, Anglicisms were considered not as a potential threat to the language but as a result of globalization. In our research we aim to show the detrimental effect of the English borrowings related to the technical sphere on the Ukrainian and Italian languages. It should be said that this problem is concerned not only with the languages under consideration, but also reflects the evolution of a language in general, which does not always occur naturally.

The research methods include sampling and comparative analysis to single out Anglicisms in Ukrainian and Italian technical texts, and identify their differences and similarities. The results obtained enable to see how the borrowings affect the development and the language itself as a whole [1, p. 29].

We conducted the research on the basis of the Italian website https://www.digitalic.it/ that covers news from the world of electronics. Since we are translators and this is a great opportunity to see if there is a difference in the transition of Anglicisms in Italian and English, we translated the texts from Italian into Ukrainian, and came to the conclusion that most words are simply transliterated from English, and sometimes do not change their structure at all. These are, for instance, words such as *the names of social networks Facebook, Twitter, YouTube*. The results show that due to the appearance of new words in English people lose the need to invent new words in their own languages. For example, such words as *smartphone*, *Internet*, *video* have not absolutely changed their form. After analyzing only 3 publications, I found as many as 28 words that were proceeded from English [2].

Therefore the influence of Anglicisms on other languages is very high, not only in colloquial speech, but also in writing. It is known that the rapid turnover of Anglicisms occurred in the 1950s, as confirmed by A New Dictionary of Italian Anglicisms: the Aid of Corpora. The consequences of this influence can be irreversible, because with the rapid technological development and the introduction of English words into everyday life, we can come to the fact that other languages will consist of more than half of borrowings, which is the reason for the destruction of the language's structure itself [3, p. 313].

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MODERN MEDICAL NEOLOGISM IN TRANSLATION

The continuous spread of coronavirus in the world is the main catalyst not only for changes that are taking place in the culture and life of people, but also in the language. In 2020, the new term "Covid-19"dominated in the mass media and around the world. People who were not familiar with the medical profession and did not have the appropriate knowledge faced the impact of the coronavirus pandemic on a global scale. An outbreak of a new virus that has rocked the health system and forced people to create a new colloquial medical vocabulary dedicated to the pandemic. New medical terms have become part of the new social reality that people live in.

Medical translation is characterized as a separate type of technical and scientific translation, including medicine and related fields that deal with public health issues. Medical vocabulary is one of the most complex in the world. The main feature of translating medical texts is terminology. However, the medical term system is international, because it contains a large number of terms of Greek and Latin origin. In practice, the main source language of medical translation is English, because most of the studies in the original are published in English. [2, c. 84]

Medical terminology is a system of concepts that refers to conditions and processes occurring in the human body; this refers to all diseases and their symptoms, medical equipment and medicines, as well as methods for the diagnosis, prevention and treatment of various diseases.

Medical terms like any other lexemes belonging to a particular terminological system, have a number of specific features: 1) definitiveness, consistency, unambiguity, accuracy, lack of synonyms and independence from the context; 2) internationalization, implemented in terms based on Greek and Latin roots; 3) neutrality is necessary to avoid errors in the interpretation of the term; 4) eponyms play one of the main roles in the replenishment of medical terminology vocabulary; 5) savings that are achieved by using various abbreviations and abbreviations. [1, c. 15]

Terminology in the medical field is divided according to the method of creation, as well as depending on what means are involved in creating the term. Among the main ways to create new terms are: 1) Affixation. Many words are usually formed using Latin and Greek suffixes, prefixes, or roots. Usually, terms with Latin roots refer to a part of the human body, and terms with Greek roots indicate that this part of the body is being examined, or indicate a pathology in this part of the body. a) suffixal: *bleeding – кровотеча*, *treatment – лікування;* b) prefixal: *dialysis – діаліз*, *antibody – антитіло;* c) prefixal-suffixal: *hypertension – гіпертонія, microscopic – мікроскопічний.* 2) Ellipsis. This phenomenon is characterized by the removal of one of the components of the phrase. For example, *gastric "gastric ulcer*"- *виразка шлунка, cord "spinal cord" – спинний мозок.* 3) Telescoping. New vocabulary is formed by combining the full or abbreviated base of two words. For example, medical + care – *medicare.* This method is considered a less productive way to form medical terms.

As mentioned above, 2020 was the beginning of the formation of a new layer of medical terminology, which is connected with the reality in which people now live. The most popular medical term of 2020 is *telemedicine*. This is a new area of medicine, where computer technology plays a major role. Telemedicine was widely used during the pandemic to reduce contact with people. This term is formed by combining the two words "telephone" and "medicine". Translation into Ukrainian does not cause difficulties due to the fact that there are similar words in our language: *Healthcare organizations are evolving to exploit the power of telemedicine as an enabler for patients' wellbeing* [Journal of Innovation Economics & Management] – Все більше організацій з охорони здоров'я починають розвиваються, щоб використовувати усі можливості телемедицини як одного із засобів, що сприяє благополуччю пацієнтів.

Another term that is quite often used now is *super-spreads*. This term refers to a person who infects a large number of people: *Most new transmissions were from a few "super-spreaders": about 10% of the people caused 60% of new infection…* [The Economist] – Найчастіше розповсюдження нового вірусу відбувається через кількох "суперпоширювачів": близько 10% людей стають причинами виникнення 60% нових захворювань… This term is a neologism, and therefore it is translated into Ukrainian using loan translation.

Another example is the term *infodemic,* which refers to an overload of true or false information during a pandemic. The term *infodemic* is a combination of "information" and "epidemic": *…offered a range of recommendations for government, media and social media platforms on how to fight the COVID-19 infodemic.* – …було запропоновано ряд рекомендацій для уряду, засобів масової інформації та соціальних мереж про те, як боротися з інфодемією під час коронавірусу.

The term system also includes a large number of new abbreviations, such as *WFH (Working From Home),* which gained popularity in 2020, when people started working from home during the lockdown: *COVID-19 forced a decision upon people, and with the world having to adapt quickly, many businesses opted to try WFH.* [Policy Design and Practice] – Коронавірус змусив людей прийняти багато рішень, і оскільки світові довелося швидко адаптуватися, багато компаній вирішили спробувати працювати з дому. This abbreviation is not available in Ukrainian, so it is translated using the descriptive method.

In addition to serious terms, the daily vocabulary includes words such as *coronadivorce* (a large number of divorces during the pandemic), *coronababies* (a real boom in the birth rate due to forced quarantine) and *corona bud* (the only friend with whom you spend time during quarantine). These terms were also created through the process of telescoping where two words are brought together to create a new word which combines their meanings: *Couples whose marriages are fraying under the pressures of self-isolation could be heading for a coronadivorce.* [The New York Times] – Одружені пари відчувають великий тиск через самоізоляцію і знаходяться за крок від коронарозлучення. The translation into Ukrainian in this sentence takes place through loan translation, due to the lack of equivalent in target language.

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THE NOTION OF POLITICAL DISCOURSE

In recent decades, political discourse has become one of the most popular linguistic and interdisciplinary research objects and it is the most studied institutional discourse type. The greatest contribution to this direction was made by Ukrainian and overseas researchers such as S.L. Slavova, V. Figaro, V.O. Chernyavska, O.P. Chudinov, D.V. Shapochkin, I.S. Shevchenko, O.I. Sheigal ,V.Z. Demyankov, V.I. Karasyk,W. Okulska, P. Tsap, A. Sovinska and others [7, c. 176-181]. In general, interest to the political communication and PD study has led to the emergence of a new separate branch of philological research – political linguistics and political discourse [8, c. 121-124].

Political discourse (further PD) is one of the most influential phenomena in history since the first state with its political system has begun to exist. The question concerning the language and power interaction has found its expression in the PD, which has recently been in the centre of philosophers, political scientists, sociologists and linguists attention. This is due to the general trend towards democratization of all society spheres and media development it became possible to select PD into a separate sphere linguistic research.

The connection between the language and politics is manifested, first of all, in the fact that political regime cannot exist without communication. Politicians need the language to inform, give instructions, legislate, persuade, and so on. Political specificity, in contrast to a number of other human activity areas, lies in its predominantly discursive nature: a significant part of political activity is implemented through the speech.

According to I. Butova, PD became an important linguistic research object at that time when political communication acquired certain features of consciousness manipulation. It means that linguistic phenomena during public speeches of politicians, their propaganda speeches and texts can tell about the speaker much more than explicit expressions [4]. It should be noted that the language of political communication is extremely important, that is why there has always been a close connection between politics and language. PD linguistic interpretation fields are utterance, vocabulary, argumentation, grammar, stylistics, syntax, rhetoric and narrative in general.

There is no universal definition of PD in linguistic science. In particular, PD interpretations are often based on the theoretical foundations of the basic “discourse” concept. As emphasized by A.M. Baranov and E.G. Kazakevich, PD is a discourse of power, an exceptional form of political and social activity, which is defined as a linguistic acts combination in political discussions and public policy rules, which are formed according to the existing traditions and tested by experience. PD provides the need for managing the society, which can be achieved through politician’s self-realization of gaining power through certain strategies and tactics [1]. So, PD is a specific interaction act between a subject of politics (a politician, government or parliament), and a political object (a voter, audience, electorate).

Kondratenko N.V. singles out a number of aspects in PD research, in particular, the research of the form (written or oral); the research of goal (motivational, informative, expressive and incentive); the research of operation field (PR, television, newspaper, magazine and radio advertising); the research of speaker factor (directly or indirectly); the research of addressee factor (“mass addressed”), the research of functioning sphere (“television, newspaper and magazine, radio advertising, PR”) [6: C. 150 – 155].

Oral PD is understood as interviews with politicians, their speeches, official statements, but political texts published through the media are included in the written PD. We also consider campaign leaflets, booklets, image texts, and postal correspondence as a political discourse. In addition, E. Sheigal notes that every material that deals with politics should be called “political discourse” [10, c. 386]. The study of both oral and written PD is based on many factors, but conceptual factor is particularly essential, because the appropriate organization of concepts in PD ensures its success.

In communicative linguistics, the discourse studies and its types are related to speech genres. The “speech genre” concept was introduced into linguistics by the Russian literary critic M.M. Bakhtin, who defined speech genres “as relatively stable thematic, compositional and stylistic types of utterances” [2, c. 254].

Genre characteristics of a certain speaker's speech allow us to make an impression about his speech behavior, his ability to use means of speech to achieve certain communicative goals and the linguistic personality picture [9, c. 358].

Understanding the genre as a discourse element, which reflects social interaction features, correlates with the allocation of institutional and non-institutional discourses [5, c. 477]. The studied political discourse is one of the most representative institutional discourse types.

Linguists express different views on the number and set of genre subtypes of political discourse. T. van Deick considers political discourse as a class of genres limited by socio-political sphere, which includes government debates, parliamentary debates, political programs, politicians speeches [11, c. 11-52].

E.O. Chetvertak mentions that PD is a mean of manipulation of large people groups mind, the main purpose of which is to impose a certain opinion on a wide range of voters with the subsequent intention to win their votes during the election campaign [3, c. 42 – 43].

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MULTIMEDIA INNOVATIONS IN THE PROCESS OF FOREIGN LANGUAGE LEARNING

In the modern time the development of any civilized society is closely linked to the use of constantly updated computer information technology. This most powerful resource is widely used in the educational process including teaching of foreign languages. Nowadays the educational sphere is one of the first to implement the latest computer multimedia learning systems.

This topic was studied by M. Solina Paso, W. Ronsel Vega, S. Luhan Garcia. Therefore, we are interested in it, because multimedia technologies must fulfill the primary task – to maximize the growth of the pupil learning and improve the quality of this learning, to teach him to make decisions about what, how and when to study. So, the aim of our study is to analyze multimedia innovations in the process of foreign language learning.

Multimedia technology is "information technology that realizes the capabilities of multimedia – operating environments, based on the simultaneous use of different means of information presentation which provides a set of techniques, methods, methods and means of collecting, accumulating, processing, storing, transmitting, producing audiovisual, text, graphic information in terms of interactive user interaction with the information system"[1, p.50]. Multimedia technologies in the broadest sense means a set of different ways of learning: texts, graphics, music, video and animation in an interactive mode.

The approach to learning a foreign language using interactive multimedia resources has such advantages as:

- efficiency and variety of forms and methods of management of educational and cognitive activity of the student;
- gradual transition from the information-reproductive type to the searching one of training;
- expanding the forms of interaction between the teacher and students, as well as between students;

- increasing the activity of students in their interaction;
- stimulating different abilities of students (language, mental, creative);
- the possibility of an individual differentiated approach in the learning process.

The research of N. Boyko and A. Bayrakivsky is devoted to the problems of using multimedia innovations in order to increase the efficiency of independent work in the educational process. They note that the introduction of multimedia innovations in the educational process help to form relevant professional and personal qualities [2].

E. V. Subotina emphasizes that multimedia computer tools allow the user to simultaneously perceive visual and audio information. Multimedia also contains hypermedia, which combines multimedia resources together and allows users to choose their own path within the program [3].

P. G. Rogulin determines that the main characteristics of multimedia technologies are: combining a multicomponent information environment (text, sound, graphics, photos, video) in a homogeneous digital representation; ensuring reliable (no distortion when copying) and long-term storage (warranty period – dozens of years) of large amounts of information; easy information processing (from routine to creative operations) [4, p. 126].

The organization of educational activities on the basis of modern multimedia technologies is a necessity in teaching a new generation. The capabilities of software allow you to adapt it for all types of control in almost any discipline, both in regular lecture halls and in specialized training laboratories and workshops [5].

The clarity principle in the use of multimedia is very important in learning foreign languages. The use of multimedia is of high quality, dynamics and colour. The use of multimedia makes it possible to present information simultaneously in text, graphics and audio forms. The use of multimedia technologies increases the level of perception of information, both visual and auditory channels work. The information perceived by students is based on selective attention.

To interest and motivate their students, the teacher must be fully versed in multimedia technology. The teacher does not have to be professional in computer science as a subject, but he must have a good idea of the endless didactic possibilities that can bring multimedia technology to the language audience. However, many teachers still follow traditional methods. This situation could be influenced by specialized professionals.

Moreover, there are forums or virtual classrooms that allow teachers to share experiences where each of them could feel the part of a professional and co-creative community. This is the only way to overcome the natural fear of technological challenges and technical innovations in which pupils are often more experienced than teachers.

So, this study is actual, because multimedia resources are a universal tool that can simultaneously act as a learning tool that makes the learning process effective, interesting and accessible; a means of forming students' media competence, as well as a means of developing psychological processes such as memory, attention, imagination, perception, logical thinking. We can also argue that the above arguments suggest that it is important for a modern foreign language teacher to be able to create their own interactive learning materials. The use of multimedia resources as one of the leading means of organizing the educational process provides a unique opportunity for comprehensive foreign language learning with the unconditional use of traditional forms of learning.

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HOW WRITERS PREDICT FUTURE

The aim of this study was to investigate the author’s predictions in their writings.

Writers are not prophets or psychics, clairvoyants or descendants of Nostradamus. They are not supposed to be, at least. but sometimes, their writing ends up eerily close to events to come.

Science fiction is a very popular genre for books, television, and movies. Sci-fi is characterized by futuristic societies and new technologies yet to be invented or discovered. People look to science-fiction as a way to escape and to imagine. Jules Verne, a much loved French novelist, sometimes referred to as “the Father of Science Fiction”, predicted multiple events and discoveries.

Ray Bradbury is one of the science fiction pioneers who cleverly envisaged a brand new world and its reliance on cutting-edge technologies. In his famous dystopian novel “Fahrenheit 451” – published way back in 1953 – Bradbury predicted a wide range of high-tech phenomena that turned out to be true a few decades later.

The following writer’s predictions are not related to science or technology, but they are exactly related to politics. Stephen King wrote a horror novel in 1979 called, “The Dead Zone”, in which an angry, populist, demagogic, egomaniacal political outsider named Greg Stillson runs for Congress—saying and doing the craziest things—and wins. Many of King’s fans say the novelist was predicting the rise of Donald J. Trump.

Dean Koontz once wrote a thriller called, “The Eyes of Darkness”, which predicted a global pandemic started by a lethal virus called the “Wuhan-400”, originating in Wuhan, China.

So, to put it into conclusion, of course here, in my research, I listed not all possible predictions in different writings, there are plenty of them. And let me say it again: novelists are not prophets or psychics. But it’s true that over the years some of them were pretty close to events to come.

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GENDER FEATURES OF COMMUNICATION IN THE SERIAL "FRIENDS"

Gender characteristics of men and women characterize them not only as individuals, but also determine their behavior as social groups. The concept of gender, which is used today, was introduced in the 60s of the twentieth century. The social sciences approach gender as a social construct, conduct gender research, while the natural sciences study whether biological differences in men and women affect the development of gender in humans [1].

Gender now refers not only to women or men as individuals, but also to the relationship between them as socio-demographic groups and gender relations in general.Gender is manifested in the speech of men and women, and particular in:

1) communication styles. It is determined that male speech is rougher, female - more superficial and experienced;

2) nature of the conversation. Women use more tag questions (such as "isn't it?"). Usually they avoid swearing, when using choose more decent words. Often a noticeable feature is the use of "empty" adjectives in women;

3) topic of communication. Male dialogue usually predominates in the following topics: women, politics, sports, fun, work and cars. Women's conversations: what to do with men, children, health, cooking and a little about rags.Men use short and clear wording, while women, coming from afar, formulate a long text. A woman, telling one topic, can easily move on to another. But it is important for a man to finish the conversation first to get to the next question. According to men, women are talkative, they believe in women's communication fewer specific theses, usually no clear goals and long discussions of what men consider unimportant. Women tend to form an opinion in the process of speaking, and men to voice it;

4) male and female logic. The man sees the goal and goes to it as short as possible. He thinks structurally. For women it is differently. If a woman consciously knows the destination, and is sure that she will definitely get there, then the trajectory is of secondary importance;

5) humor. Men joke more often than women. Their jokes are of different nature, but women mostly use sarcasm. However, it is noted that men joke even where it is inappropriate [2].

Except verbal communication the scientists pay much attention to non-verbal communication. Regarding non-verbal communication, it is divided into four forms: kinesics, paralinguistics, proxemics and oculesics.Each form of communication uses its own sign system. It should be noted that the nonverbal behavior of the individual is multifunctional, it creates the image of a communication partner, expresses the relationship of communication partners, forms these relationships, enhances the emotional saturation of what is said. [4]

There are suggestions for typical communicative images of women, namely the frequent use of smiles and looks and a more developed ability to decode nonverbal signals, indicating that women are more interested in receiving feedback from their interlocutor.

Male style of communication is active and objective, but at the same time competitive and conflicting. For a man, the content of joint activities is more important than individual sympathy for a partner. Male communication is characterized by emotional restraint. Women express their feelings and emotions more freely and fully, they need to share their experiences with someone.They are also capable of empathy. Information is the most important thing in men's communication. Women, in addition to information, are largely focused on the atmosphere of communication, on interactive, interpersonal aspects. Women prefer partner, equal communication, they try to reduce the distance between themselves and their communication partner, and men maintain this distance.

Also, non-verbal means of communication used by men and women have different purposes. Women do everything to look more attractive and brighter. Men, in turn, try to show their strength and reliability. Thus, non-verbal means of communication are an important form of communication.

The aim of this research is to describe the gender differences of communication in the TV serial "Friends", using quotes from the characters, comparing the language of men and women, differences and similarities of communication.

The American TV serial shows the lives of 6 friends, including 3 women and 3 men. Each of them is different in nature and has its own uniqueness in communication, but the style and other criteria of speech of the characters are somewhat similar. Let's consider what language differences women and men have. First of all there is a stereotype that women are talkative. Well, women can tell a story for a long time, even if its essence is embedded in just one sentence. Women also use a large number of synonymous adjectives. As for men, when they tell a story, they resort to a logical sequence and use pauses to add intrigue.

One of the important criteria for comparison is vocabulary. The choice of words varies slightly depending on gender, but there is no difference as such. Still, you can see some differences. For example, women are more likely to use compliments when asked.

Another difference in vocabulary is the words of surprise. Both gender representatives use: Oh, my God! or Wow! However, there is a slight difference in the number of words spoken.

Women express their admiration not only with words but also with exclamations (shouts). Ahhhhh !So, women are still more emotional and open in expressing joy and delight.

Next we turn to the controversial topic of politeness. Women are considered more polite. However, both men and women have this criterion. But perhaps the weaker sex is simply more modest, for example, when asked, they use the form "could", which is more polite, and men more often use "can".This fact is confirmed in some replicas of the series:

Monica: Could you please tell me what is this in reference to?

Ross: Excuse me, it's my pack. Can you give it back to me?

Close to the topic of politeness is sensuality and empathy. There is a stereotype about a man's inability to understand and sing. There are many episodes in the series where women and men reassure their friends. However, women still empathize more often, they feel strong emotions when discussing the problem.

Analyzing the speech and behavior of men and women in the series we came to the conclusion thatwomen tend to tell a story for a long time using a large number of adjectives, and men like to talk shorter during the story, but with pauses to create intrigue.

It is confirmed that women are more often interested in the emotional side of the situation. They tend to ask a lot of questions, but not just while listening to the story. Women are more caring, and therefore often interested in the well-being of the interlocutor.

Of course, it is difficult to judge about gender differences in communication on the basis of the research of the main characters' speech due to the fact that it's a comedy. But the serial reflects real everyday situations and problems of men and women.

In conclusion it should be noted that everyday situations affect the language. Getting into an unusual situation, you can become too talkative or, conversely, serious and restrained in emotions.

And the main thing is that we are in contact every day, men with women, and it definitely changes us and our speech. We draw our own conclusions.

And changing their environment, the language has also been adjusted. Probably when people started to communicate more on different topics, their thinking changed and we started to move away from stereotypes, finally with words of equality between men and women, not differences.

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STRUCTURAL, LEXICAL, GRAMMATICAL AND STYLISTIC PECULIARITIES OF HEADLINES IN THE ENGLISH PRESS

Newspapers play an important role in modern life. Newspaper journalism is called the chronicle of modernity, because it is a mirror-image of events and addresses everyday problems of the society – political, social, everyday life, philosophical and others.

The headline is the reader's guide in the newspaper articles. Such a comparison is not unreasonable, because without a headline readers are lost in a sea of diverse information, often losing sight of the essential and paying attention to the insignificant.

The headline is also the political face of the newspaper. It shapes people’s attitude to the publication, indicates the author's position on this or that fact. A distant headline has a great informational impact, which is particularly important in their "information surge" times. The title itself gives the reader a general idea of the material in the article and allows the reader to find out what is most important for further reading.

Recently, there has been an increase of interest in studying headlines in periodicals. Among them there are Radkevich E.S., Trapeznikova M. V., Shkurskaya N. M. and others. However, further investigations are needed to identify the structural, lexical, grammatical and stylistic peculiarities of headlines in the English press. That is why, the aim of our study is to identify and analyse the structural, lexical, grammatical and stylistic specifics of translation of English newspaper headlines.

The headline aims to express the main purpose of the message, establish contact with the reader, attract his or her attention, and generate interest in the material that is being published. At the same time, the headline actualises the most important information of the message and acts as a means of influencing the reader's perception of it [1]. As a consequence of such targeting, the English press developed a distinct style of newspaper headlines with low lexico-grammatical and functional-stylistic figures.

The special style of newspaper headlines can cause difficulties in translation. That is why, this work mainly focuses on the peculiarities of English newspaper headlines, as well as examines types of headlines in the English press and distinguishes certain peculiarities of headlines.

In headlines, apart from the external means of committing the reader's attention (large print, graphical prominence), a number of lexical and grammatical techniques are present:

- In headlines, articles are often omitted in order to draw the reader's attention to the main point of the message: "Ukrainian Athlete Winning Prize".
- An important feature of English newspaper headlines is the widespread use of the elliptic passive form with the omission of the adjective "to be" to describe events both in the past and in the present. The action is often expressed in Indefinite or Continuous: "City Destroyed By A Tornado".

- English newspapers have a high prevalence of opinionated headlines: "Exports to Ukraine Rising".
- The content is also often stored in the headings, which are composed of nutritional phrases: "Will There Be A Rock Concert Next Year? "
- Popular nicknames and shortened names are used instead of names of political figures, artists, athletes, etc., for example: "Arnie’s Uphill Climb" (Arnold Schwarzenegger).
- Jargon, neologisms, dialects, poesy, slang are added to the common vocabulary in order to give emotionally indoctrinated content: "Report Raps Lack of Law Reform".
- A close and very popular headline quote. The words of the person in question are the most striking words in the title of the story: "Johnny Depp: The Story Of My Life Is Very Interesting".
- The title, as the main means of committing the reader's attention to the content of the article, is typed in a large typeface, italicized or bolded. The title should be in such a way that it fits in one row, if it is not possible, it is divided into a title and a sub-heading in order to avoid transposition: "The Ukrainian Economy".
- Single-syllable words are widely used in the headlines of newspaper articles because they are able to express ideas in a very compact form, which attracts and concentrates the reader's attention on the most important thing in the article: "Animal Protection".
- The elementary models of nominative titles are those represented by only the Noun: "Trade".

In the field of vocabulary for the headlines of English newspapers, the use of a small number of special words that constitute a kind of "headline jargon" or "headline clichés" is typical: ban, bid, claim, crack, crash, cut, dash, hit, move, pact, plea, probe, quit, quiz, rap, rush, slash and others. The peculiarity of such "headline vocabulary" is not only the frequency of its use, but also its universality.

Very often in the headlines of newspaper articles political terms are replaced by short "trendy" words used for the purpose of impressing rather than informing, such as "probe" instead of "in-depth investigation", "slam" instead of "criticize severely", "slash" instead of "make sweeping or random cuts"," is set to" instead of "is preparing to".

In conclusion, we can argue that the headlines in English newspapers are really diverse. In this paper we demonstrate the structural, lexical, grammatical and stylistic peculiarities of headlines in the English press.

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IRONY AS A PROBLEM OF LITERARY TRANSLATION IN JULIAN BARNES'S WORKS

Sarcasm is irony which has lost its soul
Julian Barnes

It is known that term "irony" originates from the ancient Greek and since that time it has embedded into English as a linguistic device which describes a contrast between expectation and reality in the certain situation. Due to the specific cultural environment nationally coloured irony is a problematic device in the translation.

It is hard to reveal the hidden content presented through the irony. This device has a specific interpretation depending on the author's style and the peculiarities of the translator.

Umberto Eco who was interested in the intertextual irony, sometimes called as an allusive one, thought it to be a quality of postmodern literature. It predicts author to make consciously a concept which is not equivalent to the basic one. Such image helps to provide a mockery and intellectually highlight the disadvantages in the stable materials.

Linda Hutcheon discusses the functions and effects of irony in *Irony's Edge: The Theory and Politics of Irony* [2]. According to Hutcheon, who identifies the ironic as the predominant postmodern attitude in her earlier works about postmodernism, irony may have "destructive" as well as "corrective" functions.

The translation of postmodern literature gives an opportunity for new researchers in the field of humor and irony analysis. Julian Barnes as the presenter of British literature transmits his ideas through the ironic context which is hard to interpret. In the novel "A History of the World in 10 ½ Chapters" he changes some important historical events. Julian Barnes invents events that represent some of the omissions from history as he is to retell other well-known stories from the point of view of the victims and characters embedded into the narration.

The first and the most vivid example of irony is presented in the title of this novel. It was made as the mockery of the world history. All the chapters are separated by their ideas and have no connection neither in plot nor in time. Richard Locke argues that the title emphasizes the fragmented form of the novel: *The title suggests a book that will flaunt genres, categories of communication, numbers that don't neatly conform to our devotion to the order of ten. This self-advertising title is a boast that mocks itself by calling attention to its literary and cognitive form.*

In Chapter 4 of the novel, "The Survivor" the Chornobyl catastrophe was presented in Kate's reflections. She was worried about the long-term effects this had on the animals, particularly the reindeer, which became radioactive and were killed, for example: *It wasn't a very serious accident, they said, not really, not like a bomb going off. And anyway, it was a long way away, in Russia, and they didn't have proper modern power stations over there like we do, and even if they did their safety standards were obviously much lower so it couldn't happen here and there wasn't anything to worry about, was there?...The cloud had gone over where the reindeer grazed, poison had come down in the rain, the lichen became radioactive, the reindeer had eaten the lichen and got radioactive themselves. What did I tell you, she thought, everything is connected.* The irony is hidden between the unconnected situations, where the reindeer become an ironic image. In the same time a translation of this chapter is very close to our Ukrainian mentality. That was an ironic situation of concealment the information about Chornobyl all around the world. The Ukrainian translation accurately conveys the details, so the irony is quite transparent and understandable to the average reader.

"A History of the World in 10 ½ Chapters" includes an irony and its devices which are used to falsify and deconstruct some grand narratives in history. The interpretation of Biblical Noah's Ark contradicts to the original religious text. The postmodern irony represents the possible ideas which could have been possible broaden horizons in historical interpretations. *You've always been led to believe that Noah was sage, righteous and God-fearing, and I've already described him as a hysterical rogue with a drink problem? The two views aren't entirely incompatible. Put it this way: Noah was pretty bad, but you should have seen the others.* Noah as the founder and "guardian" of the human race is presented from the ironic and point of author's view. And the Ukrainian translation, made by Hanna Yanovska, keeps the main idea of this ironic message and makes it not so rude and offensive as the original text: *Вам весь час навіювали, що Ной був мудрецем, праведним і богобоязним, а я тут описав вам його як істеричного пияка і взагалі малосимпатичну особу? Ці два погляди не такі вже й непоєднувані. Висловлюся так: Ной був нехороший чоловік – але бачили б ви всіх решту!* The words "rogue" and "pretty bad" are translated with a little bit lighter equivalents, which still keep the ironic message.

Julian Barnes made his own literary style where every irony had a sense translation of which should be done with the appropriate equivalents.

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INNOVATIVE TECHNOLOGIES (USING OF INTERNET SOURCES) IN TEACHING LISTENING OF THE ENGLISH LANGUAGE

Listening is understanding the perceived oral speech. The process of listening begins with the perception of speech, during which the listener through the mechanism of internal speech converts sound images into articulatory.

The purpose of the article is to determine the functions of innovative technologies in the process of teaching listening at school.

In the age of digital technologies it is impossible to imagine learning a foreign language and listening in particular without innovative technologies. Therefore, this article is relevant for both pupils (students) and teachers.

The benefits of using innovation and new technologies in the educational process are:

– faster development of communication;

– skills compared to conventional methods teaching;

– using the method of trial and error in the learning process;

– providing a great variety of methods in language learning;

– development of interest in the process of language learning;

– stimulation of amateur activity, self-education and reducing the phenomenon of verbalism;

– ensuring quality teaching, as well as assistance in overcoming language barriers;

– saving time, fast and permanent learning [4, p. 358].

With the advent of new technologies and innovations in education, the process of teaching English in school has undergone changes in methodology, methods and styles of teaching. Use of new technologies in the process of English language teaching is a particularly important phenomenon for the development of macrolinguistics skills. Technical means allow to combine oral and written forms of new lexical units using authentic audio materials, and also fix them in the process of visualization, using projectors, videos, etc. [2, p. 357].

Modern online resources allow you to develop effectively such a complex type of speech activity as listening. Their diversity indicates their high potential in the field of foreign language teaching.

Listening is the process of defining and understanding a language. This process involves understanding and perceiving the speaker's intonation, grammatical constructions, vocabulary and comprehension general content of the text. The pupil must be able to combine these components simultaneously. Listening is considered as required skill to learn the English language. There are many technologies to enhance listening skills, namely:

– use of computers;

– television (watching TV programs and listening to the radio);

– use of CD players, cassette recorders, etc. [2, p. 358].

Quite often the Internet is used as a resource to obtain the necessary information. However, its best use is revealed in time application for language learning. Sites to use when studying English, are divided into information (for the selection of creative tasks, interesting text documents) and education [1, p. 108].

There are many computer training programs, dictionaries, tests that contribute to the study of English. These include, for example, a computer program "Professor Higgins", which is a complete phonetic, lexical and grammar guide to help students improve pronunciation, according to the standard British pronunciation, which is the norm in English television, as well as the Oxford Platinum computer program, and effective courses of learning English which contain dialogues, movies, dictionaries, grammar and phonetic exercises.

P. Sharma and B. Barrett also proposed a fairly clear organizational structure of using the Internet in learning a foreign language. They shared the following

use for two main types: on-line (those who study, work in Online or directly in class, immediately before or immediately after it) and off-line (those who study, work on the Internet outside the classroom, in more deferred mode, and the results are discussed in the next class Internet search) [3].

Every student and teacher has access to the Internet and a variety of materials that can be used in teaching listening and training listening skills. The BBC World Service provides the opportunity not only to listen but also to read news, in many languages, and you can even choose the right one level of English and listen to the news with learning English. ABC News accompanies its publications in addition to audio and video. It is also possible to have a conversation on the proposed topic among readers chat sections [3].

Listening can be direct (perception of foreign language information, communication at the lessons) and indirect (listening to radio and TV shows, podcasts, audio and video texts) [1, p. 109].

The Internet resource English Central (www.englishcentral.com) provides students an opportunity to listen to authentic English. An undeniable advantage of this resource is that students can both choose the subject of texts, and the level of their complexity. This program allows if necessary to accompany the audio track with captions, which is especially relevant at the beginning stage of language learning. This resource allows you to consider different learning styles, opens the possibility to choose the method of working with audio: reusable listening – one-time listening, sounding the text sentences – perception of the whole text, listening in normal mode speed – listening in slow speed mode [1, p. 109].

As you know, the effective process of learning English is only that if it is integrated and unites the development of all skills, connected with studying foreign languages. The Internet resource English Central allows you to practice phonetic skills through multiple repetition followed by audio recording of the pupils language. In addition, this resource provides the function of comparing the pupils pronunciation with the pronunciation of native speakers. The program automatically detects shortcomings in the pupils pronunciation and demonstrates authentic model.

Innovative technologies are an integral part of the process of teaching and learning English. They help students to master the necessary skills for free use of English, namely listening skills in a short time [2, p. 358].

So, using the Internet while learning English helps to develop the auditory skills, providing genuine interest and efficiency. Moreover, the Internet develops skills that are important not only for a foreign language, but also for self-confidence and the ability to work quickly and productively online. It creates a favorable atmosphere for learning by speaking as the means of interactive and innovative approach. It is always interesting for students to combine different types and kinds of work when studying the material, especially if studying is one of the most important and difficult sections of the English language listening.

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THE PSYCHOLOGISM OF FEMALE CHARACTERS IN JANE AUSTEN'S NOVEL "PRIDE AND PREJUDICE"

Jane Austen is a British writer who was active during the Regency era. In those times it was hard to be a woman, especially a woman writer. Women's style of writing was considered to be inferior to men's writing style. In Austin's time women thought that they could do nothing but what was expected from them; they were dominated by men. Marriages were arranged, mostly within the same social class. Even middle-class parents wanted their daughters well situated. Love was not important when it came to choosing a husband. In her novels Jane Austen describes women's life and position in the Regency England. Women's life revolved around getting married, preferably to a rich man, to secure their social position. "Pride and Prejudice" (1813) is probably her most famous novel. It deals with the life of Elizabeth Bennet, who is the second of five daughters in the Bennet family.

Psychologism is a philosophical position, according to which psychology plays a central role in grounding or explaining some other, non-psychological type of fact or law. The topic of phychologism in literature was studied by many researchers. It is worth mentioning the works of R. Ingarden, I. Livytska, M. Kusch and N. Honcharova.

The aim of our study is to identify the specifics of the analysis of women psychology in the work of Jane Austen on the material of the novel "Pride and prejudice".

The novel "Pride and Prejudice" deals with the life of the sisters from the Bennet family. It focuses on the life of Elizabeth, the main protagonist of the story. The Bennet family belongs to the middle class. In our study we would like to draw your attention to the detailed analysis of female characters from Jane Austen's novel.

Mr. Bennet does not have a male heir so his wife fears that her daughters will be left with nothing after their father's death. Mrs. Bennet, devotes her life to finding husbands for her daughters: "The business of her life was to get her daughters married; its solace was visiting and news" [3, p. 5]. Mrs. Bennet is a very loud person who states her opinion even when it is inappropriate. She does not understand that her behaviour influences her daughter's destiny and that because of this conversation with Lady Lucas Mr. Bingley will be separated from Jane. Mr. Bingley's friend, Mr. Darcy, and his sisters state that "with such a father and mother, and such low connections" [3, p. 40], the Bennet daughters have no chance of marrying rich.

Elizabeth "Lizzy" Bennet is the second daughter of the Bennets. She is twenty years old and is described as having "a lively, playful disposition which delighted in anything ridiculous" [3, p. 12]. Elizabeth states her opinion directly and has a sharp tongue, which often shocks those who believe that ladies cannot be allowed such freedom. During her conversation with Lady Catherine, who is a very powerful woman, she answers a lot of questions but with some reservation and asserts her opinion on the social norms:

"But really, Ma'am, I think it would be very hard upon younger sisters, that they should not have their share of society and amusement because the elder may not have the means or inclination to marry early. The last born has as good a right to the pleasures of youth as the first. And to be kept back on such a motive! I think it would not be very likely to promote sisterly affection or delicacy of mind." [3, p. 187].

Elizabeth understands the true purpose of marriage, something that neither her mother nor her sisters do. She wants to marry out of love, not just so that she would be financially secured. When she rejects Mr. Collins, her mother is furious because "society recommends that all women accept the marriage proposal they receive" [3, p. 129]. She even rejects Mr. Darcy's first proposal because she believes him to be an immoral and evil man. Elizabeth's judgments are sometimes irrational and blinded by her pride but, when this is the case, she is willing to admit that she is wrong. She tries to be fair towards everyone and that is why she feels that she has done wrong to Darcy. Later on, when Lady Catherine confronts her because she believes that Elizabeth and Darcy will get married, Elizabeth shows that she is not afraid of her. Lady Catherine states that their marriage would be the most unsuitable match; yet, Elizabeth does not share that opinion. Elizabeth is not a woman whom someone could easily scare and she fights for what she wants and believes in – and that is Mr. Darcy and her love for him. Again, Elizabeth proves to be an intelligent and independent woman who does not care about the opinion of others; she does what she thinks to be the best for her.

Jane Bennet is the eldest daughter in the family. She is 23 and is aware "that she has reached the age where it is beyond proper, rather necessary, for her to marry" [3, p. 128]. She is the prettiest girl in the county; even Mr. Bingley states that. She is kindhearted and always thinks the best of people, which makes her naive in certain cases. Jane is the same as Elizabeth when it comes to love; she prefers love over financial security and, unlike her mother and other women, does not care about money.

Charlotte Lucas is worth mentioning because she represents traditional women who are not interested in marrying out of love. She is 27 years old and considered to be a spinster, that is why she accepts Mr. Collins's proposal. It is obvious that she does not like him but she thinks that she cannot do better than him. She only thinks about the position that she will acquire once she is a married woman.

Lydia and Kitty are the youngest sisters in the Bennet family. Kitty is 17 and Lydia is 15. They are not so intelligent and behave like most of the teenagers. They behave inappropriately and are not interested in anything except the soldiers. Lydia is much worse than Kitty and her free spirits leads to the most shameful act of all. She runs away with Mr. Wickham, thus endangering the position of her sisters on the marriage market since no one would marry them if the news of her escape became public. Yet, Lydia does not care about that; she is happy to be a married woman. Her reckless behaviour shows how social norms regarding marriage make young women do foolish things and enter a marriage they will one day certainly regret.

To conclude, this paper demonstrates the role of women during the Regency era. Most women wanted to get married to feel financially secure, while others, as Elizabeth

Bennet, married out of love. The topic of phychologism in literature was studied by many researchers, is studied and will always be studied and actual in the human society.

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SOCIOCULTURAL ASPECT IN THE ENGLISH LANGUAGE CLASSES AT THE KINDERGARTEN

At the present stage of integration into the European space the question of the involvement of modern person in the world culture, bringing its level to the European standard.

Thus, as the practice of teaching foreign languages shows, it is necessary to teach children from preschool age. E. Bogolyubova, B. Gershunsky, and V. Zinchenko studied the use of the sociocultural aspect in English classes. Analyzing recent researches, we can conclude that in today's world, the use of local lore in the classroom is quite problematic because not much attention is paid to the study of British culture and history. Another problem is the selection of teaching methods and techniques that could really interest children.

That is why, the aim of our study is to determine the importance of using the sociocultural aspect in English classes at the kindergarten, to select interesting methods and techniques for teaching children

To state with, local lore – the collection, accumulation and promotion of information about a particular area from different points of view: geography, geology, meteorology, flora and fauna, population, economy, history, culture [2].

In modern society the question of learning English is very relevant. According to the scientific research, it is found that 50% of our ability to learn develops up to the age of 4. Therefore, it is desirable to start learning the language at an early age [3].

More attention is paid to the study of culture during group forms of work. After all, children are not only taught to understand language, correct pronunciation and grammar. They get acquainted with the culture of other countries, literature, traditions and mentality of their population [1]. Therefore, the sociocultural aspect is the most important element of learning a foreign language.

The main aspects of the use of sociocultural material in English classes:

- children's acquaintance with symbols of the country;
- acquaintance with the geographical position of the country and the main historical monuments;
- developing interest and respect for the traditions and customs of other peoples on the basis of fairy tales, rhymes, proverbs;
- studying the basic rules of language etiquette.

To make study of culture interesting, an educator can use the following methods and techniques:

- various games (didactic, plot-role, theatrical);
- paper applications (for example, studying the symbols of the country);
- watching cartoons that describe customs and traditions;
- theater (finger or acting fairy tales in English);
- preparation of national dishes;
- virtual tour of the sights of Great Britain;
- playing national games.

To conclude, the use of the sociocultural aspect in English classes at the kindergarten is very important, because it is necessary to get acquainted with British culture in order to learn, master and understand a foreign language better.

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Session work № 2

CURRENT RESEARCH IN THE FIELD OF LAW AND SECURITY

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PROBLEMATIC ISSUES OF ELECTRONIC MONEY PERCEPTION IN THE UKRAINIAN LEGISLATION

In the current economy, money plays a functional role. It is a tool that, in essence, only performs the functions of money, providing payments, determining the value of goods or services, serves as a unit for the application of certain calculations. Functionally, money is characterized by stability, and the forms of money included in the money supply are traditionally called paper money and bank deposits.

To analyze the institution of electronic circulation in more detail, it is necessary to analyze the concept of electronic money in broad and narrow senses of the concept. In a broad sense, electronic money is considered as a set of subsystems of cash (emission is carried out without opening personal accounts) and non-cash money (emission is carried out with the opening of personal accounts) or a system of cash payments using electronic technology. In a narrow sense, it is a subsystem of cash issued by banks or specialized credit institutions [1].

The legislative definition of the concept of electronic money is enshrined in Art. 15 of the Law of Ukraine, "On Payment Systems and Funds Transfer in Ukraine", the essence of which is that electronic money should be considered as units of value stored on an electronic device accepted as means of payment by other people than the person issuing them, and is the monetary obligation of this person that is performed in cash or non-cash form [2].

Electronic money can be issued only by a bank. The bank issuing electronic money undertakes to repay it [2].

In the scientific literature, there is a frequent thought that electronic money is «a qualitatively new kind of money that combines both non-cash and cash».

At the same time, the advantages of electronic money circulation include:

– anonymity of their use and fairly simple participation in payment systems;

– transactions with electronic money have lower requirements to ensure the security of their use, which allows them to be disposed of more quickly in various sectors of the economy;

– most operations take place online, which is currently an essential indicator of rapid adaptation and mobility of such applications;

– electronic money is more convenient to use due to reducing costs for their circulation [3].

The problem has to be and remains the failure of mechanisms that cannot depend on the man. Financial risks may also arise for reasons specific to this payment method due to the minimal detail of information about the transaction with electronic money; during its implementation, there may be errors that the system cannot fix [4]. The development of information technology continues to move forward; however, the presence of machine failures inherent in computer systems can cause the loss of specific data, such as information about the number of funds in the account or transactions that are currently carried out through this electronic account, which in turn may have a loss of money, and, accordingly, there is a need to reimburse them.

– In connection with the above, significant changes have recently been made to the current Ukrainian legislation regarding banks' regulation in Ukraine. Banks are now required to take steps to properly verify electronic money users, including verifying and identifying them during opening accounts. In this case, we are talking about customers who will open e-wallets for certain transactions, including purchasing goods or payment for certain services, etc. [5].

Thus, the active development of the electronic money market in the future because both, the state and citizens, are interested in the provided benefits. Among them, we highlight the ability to send transfers or payments quickly, debt payment, or account replenishment because these services have become much more accessible due to technical progress. This process has become especially relevant in modern conditions when we have to follow the quarantine regime and information technology effectively helps us in this. Accordingly, following the rules of digital security, you can be sure about the safety of electronic money storage because the presence of new changes in the legal regulation of this area in Ukraine is an indication that the state is trying to monitor its development and implement new changes designed to regulate electronic money.

At the same time, the active introduction of electronic money in Ukraine remains a positive phenomenon for the development of our country's economy. However, due to certain problematic issues of legal framework regulation, which could effectively minimize all current risks for market participants, the issue of further regulation of this system by the state remains open because the formation of an effective regulatory framework can ensure stable development of the electronic money market in Ukraine.

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"ENVIRONMENTAL SECURITY OF UKRAINE AS A COMPONENT OF NATIONAL SECURITY"

One of the main principles of domestic and foreign policy of Ukraine is the rational use of natural resources and protection of the environment from excessive pollution. Creating favorable living environment is an important priority for people of the present and future generations.

At the national level, our state plays a leading role in the security system, and determines environmental protection as one of the key provisions of the Ukrainian national security policy. It develops an extensive legal framework and executive bodies, supports law enforcement agencies at the level necessary to perform their tasks. Our state also works out a system to prevent negative consequences of environmental and man-made disasters; it provides economic development, political and social stability, participation of opposition parties, NGOs and independent experts in the activities of relevant state structures that provide security and sustainability of Ukrainian society.

The Law of Ukraine "On National Security of Ukraine " states that the national security of Ukraine is the protection of state sovereignty, territorial integrity, democratic constitutional order and other national interests of Ukraine from real and potential threats. National interests of Ukraine are the vital interests of a man, society and the state, the implementation of which provides the state sovereignty of Ukraine, its progressive democratic development, as well as safe living conditions and welfare of its citizens [4]. Article 7 of the Law of Ukraine “On National Security of Ukraine ” stipulates that environmental security is an integral part of the national security. Here, along with the environmental safety of national security, it includes the foreign policy, security, military and state borders, internal economic, social, humanitarian, scientific, technological and informational areas of activity [4].

Despite the importance of the term environmental safety, it is not widely covered in the legal documents of Ukraine. The definition of environmental safety is contained in Article 50 of the Law of Ukraine "On Environmental Protection", according to which environmental safety is a state of the environment in which the deterioration of the environmental situation and the emergence of danger to human health are prevented. We share the point of view of V. Gorbulin and A. Kaczynski, according to which environmental security is a component of national security, which provides protection of vital interests of a man, society, environment and the state from real or potential threats emposed by anthropogenic or natural factors in relation to the environment. It is guaranteed by legislative acts of the state [1]. Environmental security is an element of the national security system. One of the main tasks of environmental safety is to ensure the livelihood of population in a man-made safe and environmentally friendly world. An ecologically clean world is possible only in the lack of threats to natural objects or on condition of protection of safety objects from these threats.

According to many scientists, environmental safety creates mechanisms to prevent degradation of the environment and its improvement. It includes care of people’s health, the formation of socio-legal and economic conditions that would exclude damage to the environment by other countries, their state structures, entrepreneurs and individual citizens, maintaining a state of the environment that provides normal living conditions for population and social reproduction; prevention of environmental threats; prevention of deterioration of ecological balance and emergence of danger to health of the person, society and the nation; identification of sources of environmental risk from man-made, economic, social, political structures and ways to prevent it; protection of natural resources and human potential of the state [5].

All of the above, we can define the purpose of the national policy of environmental safety, namely the stabilization and improvement of the environment of Ukraine by integrating environmental policies to social-economic development of Ukraine to provide environmentally safe environment for life and health, introduction of ecologically balanced system of nature management and preservation of natural ecosystems.

Environmental policy is the main criterion in the structure of the environmental security of Ukraine. The main strategic document on state environmental policy in Ukraine is " Basic Principles (Strategy) of State Environmental Policy of Ukraine for the Period up to 2030" [2]. One of the strategic document of the country is – Sustainable Development Strategy "Ukraine – 2020" [3] , which determines a roadmap and priorities of the Strategy. It indicates only the implementation of a program of environmental protection, which, judging by the name, can not be regarded as a tool of environmental safety. In addition, there is the list of priority reforms, including the reform of national security and defense, which does not consider the issue of environmental safety.

The main external threats of the environmental safety of Ukraine are the greenhouse effect, global warming. The internal threats are the emergency situations of natural and technogenic character. One of the sources of internal and external threats is the unsolved problem of wastes accumulation and unauthorized landfills. In terms of full environmental uncertainties Ukraine has got into, namely in terms of human rights violations to environmental safety and safe environment, guaranteed by the Constitution of Ukraine, it is necessary to create an updated framework for an effective system of environmental safety, which has become a priority area of juridical science. Overcoming the existing new environmental threats and improving the system of public administration in this area is an important task of our state.

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PROGRESSIVE DEVELOPMENT OF INTERNATIONAL LAW IN THE CONCERN OF CURRENT TRENDS AND PROBLEMS OF COLONIZATION OF MARS AS A CELESTIAL BODY

The realization of colonizing Mars must be based on an internal legal framework adapted to support this process. Modern international space law lacks an appropriate set of rules. Therefore, filling the existing "vacuum" is possible due to its progressive development by further developing the concept of humanity's common heritage, a universally recognized part of which is outer space with celestial bodies.

As a starting point in such an algorithm, it would be logical to refer to the provisions of the 1982 UN Convention on the Sea Law. According to Article 136 of the 1982 United Nations Convention on the Law of the Sea, the Seabed Area, outside national jurisdictions (from now on referred to as the Area), and its resources are the common human heritage. No State may claim or exercise sovereignty or sovereign rights regarding any part of the seabed or its resources, and no State, individual or legal entity may appropriate any part thereof. No claims of any kind or exercise of sovereignty or sovereign right and no such appropriation shall be recognized. All rights to seabed resources belong to all humanity, on whose behalf the International Seabed Authority (from now on - the Authority) acts [1].

The Authority is the organization through which States Parties to the 1982 Convention organize and monitor activities in the Area, in particular, to manage its resources [2]. The Authority shall have the powers and functions conferred upon it under this Convention. The Convention shall confer on the Authority such imaginary competence as follows from these powers and functions related to the Area's activities and is necessary for their exercise. The body is based on the principle of sovereign equality of all its members.

All Authority members shall perform their duties in good faith to ensure that each of them has the rights and benefits deriving from their membership. In the light of the prospect of colonization of the planet Mars, we consider it appropriate to develop an international legal concept of the common heritage of humanity by a kind of analogy with the regime of development of the Area, which developed in international maritime law with the adoption of the 1982 Convention [3]. First, it is possible to consider the experience of institutional cooperation accumulated by the Community of States and to transform the Committee on the Peaceful Uses of Outer Space (from now on referred to as the Outer Space Committee) as the UN Intergovernmental Authority into the International Peaceful Outer Space Authority.) with the status of a specialized UN agency. The newly created organization structure should form three central bodies: the Assembly, the Council, and the Secretariat. The Assembly shall include representatives of all Member States of the Outer Space Committee at the time of its reorganization into the Outer Space Authority. It shall be empowered to formulate policies for the peaceful uses of outer space.

The Council should perform executive functions and consist of 36 members of the Outer Space Body, whom the Assembly will elect in 5 categories:

- states - the largest exporters of resources to be extracted on the Moon, Mars, and other celestial bodies (4 members);
- states - the most significant consumers or importers of such resources (4 members); States that, either directly or through their citizens, have made the most significant investments in the preparation and conduct of space activities, including the Moon, Mars, and other celestial bodies (4 members);
- developing and special interest States Parties (States without space exploration and exploration technologies, including the Moon, Mars and other celestial bodies; least developed States) (6 members); 18 members of the Council, elected based on the principle of ensuring a fair geographical distribution of seats [4].

The Scientific, Technical and Legal Subcommittees of the Space Committee should continue their work at the Council, but already in committees' status. Accordingly, the Scientific and Technical Committee of the Council of the Space Authority will be responsible for the use of space technology, the use of nuclear energy sources in space, etc., and the Legal Committee - to address legal issues arising during the creation and implementation of space exploration and use programs. including the Moon, Mars, and other celestial bodies. The secretariat should consist of the Secretary-General and staff. The Assembly shall elect the Secretary-General for a term of four years, which shall be renewable. He shall be the chief administrative officer of the Space Authority and perform administrative functions and submit an annual report to the Assembly on the work of the Authority. The Space Authority structure should include the Enterprise - an independent body, which will include the direct extraction of resources on celestial bodies. Within the Enterprise, the Outer Space Authority shall have a Board and a Director-General, whom the Assembly shall elect based on the Council's recommendations [5]. In addition, the structure of the Space Authority should be an independent body that has no analogs in international practice, as its appearance is due to the specifics of colonization of celestial bodies as such (Mars is only the most promising prospect for such effective development).

This structural unit's activities will be coordinated both by the Assembly and the Council in line with the international policy on the exploration and use of extraterrestrial space, which will be formed and implemented by the Outer Space Body. Such a body should be the Settlement, whose main function will be the direct implementation of the colonization process, arrangement, and organization of colonies to ensure their sustainable and effective existence and maintain regular communication between the Settlement staff and the inhabitants of colonies with the Earth. The Outer Space Body's Settlement structure should include its Board and Director General, whom the Assembly will elect based on the Council's recommendations [6].

The question of the sovereignty of permanent colonies on the surface of Mars and possibly in Martian orbit is a question that is currently not clearly articulated or defined in the current version of the Outer Space Treaty. At present, under the rules of international space law, a nation or entity cannot claim sovereignty over a celestial body or any artificial habitable human outpost, such as a space station.

However, suppose we reject the idea of creating a territory of the common heritage of humanity and have space expansion by individual states of the planet Earth. In that case, the solution will require the question of how to regulate relations in this case. An integral prerequisite for the described international lawmaking is a favorable situation in the world, on the planet Earth, and first of all - geopolitical and macroeconomic stability, as well as an active and constructive position of the UN and its bodies (especially the General Assembly and the International Law Commission). and UN member states. At the same time, there is no doubt that the provisions of the current international treaties in the field of international space law, which prevent the intensive colonization of Mars described above, should be brought into question, as discussed above.

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THE PROBLEM OF BULLYING IN UKRAINE

Bullying is the behaviour of a person who hurts or frightens someone smaller or less powerful, often forcing that person to do something they do not want to do. [3] Kids who bully usually pick on someone who is weaker or more alone, and they repeat the actions over and over.

On October 2, 2018, the Verkhovna Rada of Ukraine passed a law on combating bullying in the first reading. This will allow at the legislative level to determine the phenomenon of bullying, ways to combat it, as well as to establish administrative and criminal liabilities for harassment.

The problem of bullying is actual for Ukrainian society, because according to recent UNICEF data, in Ukraine, 67% of teenage children are constantly experiencing bullying cases (mostly school bullying), 48% of victims were not told or asked for help, 40% are ashamed to talk about it and 22% consider this behavior a normal phenomenon. [2] At the same way, more than half of the victims do not tell anyone about such cases because they fear that their offenders will not be punished.

UNICEF added that this is not only a Ukrainian issue; "half of students aged 13 to 16 worldwide – around 150 million– reported experiencing peer-to-peer violence around school."

There are several types of bullying:

1) Physical bullying (hitting, tripping, damaging property)
2) Verbal bullying (insults, teasing, intimidation)
3) Social bullying (lying, spreading rumours, excluding, damaging someone's social reputation)
4) Cyberbullying (hurtful texts, posts, images or videos, imitating others online). [4]

Typical signs of bullying are:

- systematic (repeated)
- the presence of the parties - the offender (Buller), the victim (the victim of the bullying), the observers (not necessarily);
- acts of the abuser, which result in causing mental and/or physical harm, humiliation, fear, anxiety, subordination of the victim to the offender's interests, and/or causing the social isolation of the victim. [1]

More often than not, the effects of bullying last a lifetime for both the victim and the aggressor.

From a victim's perspective, their emotional development is often compromised, and feelings of anxiety and depression arise. This extends well into their adult lives where these problems that were thought to be short term become a chronic ailment.

Bullying is a risk factor for depression and thinking about suicide. Children who are bullied more likely to think about or attempt suicide than those who are not involved in bullying at all.

How to prevent bullying? Bullying in Ukraine is a serious problem that needs to solve. This is especially concerned to teachers and parents. Parents need to provide the necessary psychological support and proper upbringing at home. Teachers should develop rules of behavior and prevent bullying among pupils. Every case of violence or harassment and every complaint should be considered. It is important to explain to pupils that any violent acts, abusive words are unacceptable. The reaction should be immediate (stop the fight, stop bullying) and more severe in repeated cases of aggression.

Unfortunately, exposure to bullying in any manner – by being bullied, bullying others, or witnessing peers being bullied – has long-term, negative effects on children. In the school system, it is needed to enter the mechanisms of report about violence, that pupils will not afraid to do it. For the successful warning and counteraction to violence it is necessary to conduct lessons of teaching effective communication and peaceful conflict resolution skills.

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DOMESTIC VIOLENCE IN UKRAINE

In recent years, gender-based violence against women has become a topic of much discussion in Ukraine. Grassroots movements are calling out sexual and domestic violence, sexism in media and politics, and discriminatory attitudes in Ukrainian society.

National and international organizations are campaigning for stronger implementation of Ukraine's obligations to combat domestic violence. However, despite new laws and measures to address gender-based violence, and the current media attention and debates on social media, violence against women remains a widespread yet deeply hidden phenomenon in Ukraine. While some extreme cases have made headlines, the everyday experience of many women of sexual, physical, economic and psychological violence remains largely unacknowledged and invisible.

All too often, such women are simply failed by the institutions tasked with protecting them, and prosecuting their abusers. [1, c.10]

According to latest UN Report around 45 percent of Ukraine's population (45 million) suffers violence – physical, sexual or mental – and most of them are women.[4]

From the historical point of view the problem of violence against women in Ukraine was always surrounded by silence. There are not too many sources of official statistics to estimate how deep the problem is. This fact also brings understanding that the mass media is unsure how to approach the issue, the authorities do not know how to deal with the manifestations of the violence and the nation doesn't know how to mobilize the public to end the violence. [5, c.76]

In Ukraine domestic violence towards women has a long history. There are evidences that the model of male aggressiveness directed towards women is transferred from generation to generation. Recent studies reveal that violence against women is not limited to any particular segment of the Ukrainian population and occurs across all social layers. There are not many Ukrainian women who have achieved economic independence and own their own home. [5, c.77]

According to recent research violence against women remains a hidden problem, but it is clear that the ongoing War in Donbass in Ukraine leads to an increase in its prevalence. [6, c.6]

A survey of young Ukrainian girls performed by All-Ukrainian Committee for the Protection of Children reveals that a sexual abuse of them accounts for high proportion of the abuse victims. For example, it was reported that one Ukrainian girl out of three had experienced sexual harassment, one out of five had suffered physical sexual abuse, one out of ten had been raped. Criminal statistics reports that 55% of registered sexual assaults in Ukraine are directed towards youth under 18, and 40% of them or 22% in total - towards children under 14. [5, c. 78-79]

In 2017, Ukraine initiated a reform of legislation on domestic and sexual violence. The now former president Petro Poroshenko signed a law (“On Preventing and Counteracting Domestic Violence”) which launched this reform process. [2,c.14]

How does Ukraine’s new domestic violence law work in practice? According to Ukraine’s Unified Register of Court Judgments, 2,288 administrative and 42 criminal cases on domestic violence were opened in 2019. So far, most domestic violence penalties have lead to fines of 170 hryvnias (around £5) or they are closed because a plaintiff fails to appear or withdraws their statement.

The reason why so few criminal cases are open is both because Ukraine’s judicial system is slow to change - and because proving the systematic nature of domestic abuse is a long process.[2,c.15]

While you may or may not be ready to leave an abusive relationship, it’s important to take precautions to keep yourself safe. To ensure your welfare, you should be alert, prepared, and educated. Your safety plan should include the following:

- Know the signs that your abuser is getting upset.
- Identify safe areas of your home—avoiding small spaces, rooms with weapons, and rooms without exits.
- Create several believable reasons to leave your home to avoid abuse.
- Create a code word to let loved ones know you’re in danger.
- Make and memorize a list of emergency contacts.[3. c.12]

Ukraine has taken its first step in combating domestic violence. Now the question is how many more years will it take to make the country's law on domestic violence more efficient. In the meantime, there is a strong need for more shelters, more resources and more encouragement to call the police when witnessing or experiencing domestic violence.

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SOCIAL POLICY OF UKRAINE AS PART OF THE USSR AND MODERN, INDEPENDENT UKRAINE

Formulation of the problem. This article is devoted to the problem of formation and development of the social security system in Ukraine, which was part of the USSR and during the period of independence. It compares the system of social benefits, the system of social policy that could be created by the Soviet government in the administrative-command system of government, and the changed and improved system of social protection after the collapse of the USSR, in modern realities.

Analysis of recent research. V. Zvonar, G. Osovyi, and L. Shevchenko studied the problem of analyzing the system of remuneration and the influence of the shadow economy on the size of wages. The impact of globalization processes on the economy (which affects social policy) was studied by V. Sidenko. Models of social policy to improve living standards in the country studied OD Vasylyk, L. Klividenko, O.

Snihova. Innovative technologies in production and efficiency of their introduction were investigated by A. Arsenko, N. Tolstykh, O. Skomarokhova.

The subject of the research was S. Korolyov's analysis of the success of the state's social policy towards servicemen. The problem of social security of pensioners was studied by O. Romanyuk, M. Ripp, Y. Salyuta. Among the monographic studies, the authors of which analyzed various aspects of social policy in Ukraine and its impact on economic processes, deepening the social stratification of society and the implementation of demographic policy, it is worth noting the work of MA Pavlovsky and B. Panasyuk, who often evaluated the successes and failures of social policy quite differently.

Presenting main material. The formation of the system of social policy and social security at the beginning of the USSR was contradictory. All this is due to the fact that the Soviet government had a great desire to quickly and effectively solve complex social problems, while not having the necessary financial resources and economic resources. The policy in the field of social security and social policy was carried out by the People's Commissariat of State Welfare (later – the People's Commissariat of State Security). The main types of social security were pension benefits and benefits. This organization and its field institutions also dealt with the provision of asylum for disabled servicemen and the provision of pensions; creation of medical and preventive institutions for children; Unemployment insurance was introduced, according to which employers had to contribute to the general unemployment fund at least 3% of the funds that went to wages; Free canteens and dormitories for the unemployed were set up in the cities, and in the event of illness, financial assistance was set at the patient's full earnings. The same amount was provided for childbirth assistance, which was issued for eight weeks before and eight weeks after delivery. The policy of social security and social policy to some extent strengthened the Soviet power in the country. With the adoption of the Constitution of the USSR began a new stage in the formation of social policy and social security. As for the peasants, the state social security was used only by war veterans, invalids and victims of wartime terror. Production cooperatives for people with disabilities were established in the city. In the 1930s, the social atmosphere in society was tense due to violent measures by the authorities. The population that resisted the government was deprived of social benefits. One of the most important measures was the fight against child homelessness (new orphanages with production workshops and agricultural colonies were opened); the army was also used (special regimental shelters were created).

Social policy during the Second World War was aimed at supporting the families of veterans, the sick, the wounded, the employment of the disabled, the care of orphans and other wartime problems.

During the Khrushchev thaw in the social sphere, pension reform and other social reforms were carried out. Extensive construction was launched (factories, plants that provided new jobs; houses). New industries emerged in production, which helped reduce unemployment and improve living standards.

In the period of "stagnation", social security focused on serving servicemen, members of creative unions; workers and employees, collective farmers. In particular, collective farmers regularly received wages and pensions. There was an increase in the minimum wage. But these improvements occurred only at the beginning of the period. After a few years, the minimum wage was declining, there was a shortage of goods, and housing shortages were also present. Medical care was free, but "extra help" for doctors took place in life.

Social security in the period 1980–1990 came from public consumption funds. The total amount of all benefits and payments in the period from 1980 to 1990 was 11–12% of gross domestic product. The main types of benefits that existed on the eve of the collapse of the USSR: maternity leave (paid) – 112 calendar days; partially paid when the child reaches one year; childbirth allowance; assistance for a child from a low-income family; assistance to large families (children of such families had the primary right to be placed in educational institutions; the family had the right to receive housing faster); assistance for temporary incapacity for work, from occupational diseases, from injuries at work (in the amount of 100% of earnings). The maintenance of children in preschool institutions was almost 80% financed by the state. The free housing system, which almost ceased to exist with the beginning of the reforms in the late 1980s, also worked quite well.

After the collapse of the USSR and the restoration of independence, our country was in a state of great and prolonged crisis, which affected the implementation of social policy. During this period, the state, seeking to protect the population from poverty and devastation, enacts a number of laws that in no way take into account economic realities. At that time, the country had low production volumes, a large budget deficit (and, as a result, low wages), a devaluation of money, and a high level of the shadow economy.

The Declaration of State Sovereignty of Ukraine proclaimed our country a welfare state in which man, his life and health, honor and dignity, inviolability and security are recognized as the highest social value. In order to improve the living standards of the population, the Law "On Economic Independence of the Ukrainian SSR" was adopted on August 3, 1990, which declared that the development of social sectors will be carried out simultaneously with the development and growth of funding in this area. That is, first the economy develops, then the social sphere. Due to the deepening economic crisis, the state's social policy was carried out on a residual basis, had no value and no control over its implementation, and was "carried out" until 1993. The concept of social security of the population of Ukraine stated that social security applies to citizens who work for hire, their families and the disabled. There was a large delay in wages, sometimes reaching one year, which led to a poor standard of living, an increase in the number of offenses, bribery. As the crisis intensified, so did the level of migration, which became most prevalent in rural areas. Mostly people of working age left.

In 1999, the Law on the Subsistence Minimum was adopted, which should facilitate the implementation of state social programs, the establishment of minimum wages and minimum pensions, the definition of social assistance, unemployment benefits and other social benefits. Amendments to the Law of Ukraine "On the Status of War Veterans, Guarantees of Their Social Protection", adopted in 1999, provided for out-of-competition admission to state and municipal higher education institutions in specialties, training of which was carried out at the expense of state and local budgets. actions on the territory of other states that perished (disappeared) as a result of injury, contusion or mutilation received during hostilities and conflicts on the territory of other states. The standard of living was positively affected by the Law on Humanitarian Aid, which was also intended to ensure the transparency and transparency of its provision.

Significant developments in the process of forming a new system of social protection were: the adoption of the housing subsidy program (1995), assistance to low-income families (2000), the adoption of the Law on Subsistence (1999), and the formation of state insurance.

At the beginning of the twentieth century (2004–2005) the main task in the social sphere was to reduce poverty, reduce the income gap between different segments of the population (increase the minimum pension and minimum wage), help orphans. On April 1, 2005, the Law "On Amendments to the Law" On the State Budget of Ukraine for 2005 "and some other legislative acts" was adopted, which stated the objectives described above. Already in July of the same year there was a positive trend. The average salary was 37.5% higher than in September last year (July 1, 2005 – UAH 310, September 1, 2004 – UAH 237).

The ratification of the European Social Charter on September 14, 2006 by Ukraine was an important step towards the adaptation of social policy. By acceding to the 27 articles and 74 points of the Charter, Ukraine was obliged to promote the realization of the rights and freedoms of citizens in a secure environment. Among the priority tasks of the state was the protection of the economically active population, as it is the basis for social security of the country. Ukraine also had to ensure its citizens the right to work and fair and safe working conditions; for a fair reward; the right of children and adolescents to protection; on social security; for health care and medical care; the right of men and women at the level of opportunity; to protect migrant workers and their families. An indicator of the effectiveness of standards of social rights of citizens are social standards of living standards. According to the Human Development Report 2011, Ukraine is one of the countries with the highest degree of lagging behind this criterion. If in 1991 Ukraine was ranked 32nd among 175 countries by this criterion, in 2005 it was ranked 76th. Also, the level of socio-economic development characterizes the standard of living of the population, which is calculated by the structure of income. The main source of income – wages. According to official data for the 1st quarter of 2012, the share of wages in the structure of household income was only 42.8%, the share of social assistance payments – 40.4%, mixed income – 11.5%, property income – 5.3 %.

In 2012, despite the slowdown in economic growth, none of the social indicators deteriorated and, moreover, all social standards and guarantees were raised (the data are given in Table [1], [2]. In August 2012, the State Target Program was approved. National Action Plan for the Implementation of the Convention on the Rights of

Persons with Disabilities "for the period up to 2020 (provides a set of measures and tasks aimed at creating favorable living conditions for persons with disabilities in the areas of amenities, transport infrastructure, information and communication and other spheres of society) In 2012, a new budget program “Measures for Rehabilitation of Children with Cerebral Palsy” and funds for its implementation in the amount of UAH 44.8 million were envisaged and the mechanism for their use was determined.

Social policy in 2013 was a continuation of the tasks set in 2012. From 01.03.2013, the amount of monthly insurance payments to 305 thousand victims of industrial accidents and their family members has been increased by 14.9%. During 2012–2013, social insurance in the form of vouchers to sanatoriums was active. Funds in the amount of UAH 39.8 billion were provided for social assistance to families with children, low-income families with children, children with disabilities from childhood, children with disabilities, temporary state assistance to children, which is almost 20% more than in 2012 (UAH 33.4 billion).

In 2014, social policy had new development priorities. In addition to the tasks that took place in previous years, the Ministry of Social Policy was tasked with social protection of the population in a difficult financial and economic situation (citizens of Donetsk and Luhansk regions, Crimea).

Since 2015, in addition to the usual types of assistance, the development of social policy has been shaped by many negative factors (unstable economic and political situation, military conflict in the East, mass displacement of citizens from the conflict zone). A radical reform of the subsidy system has been carried out (simplification of the procedure for their provision and strengthening of targeting). This year, for the first time, the principles of state policy to protect the social rights of migrant workers and their families were defined.

In 2016, a gradual increase in the subsistence level was provided (data in table [1]). The system of remuneration of civil servants and other employees of state bodies has been improved. The network of the state employment service was optimized and the availability of services was increased. Reforms on housing subsidies continued. Conditions were created for the provision of benefits in cash.

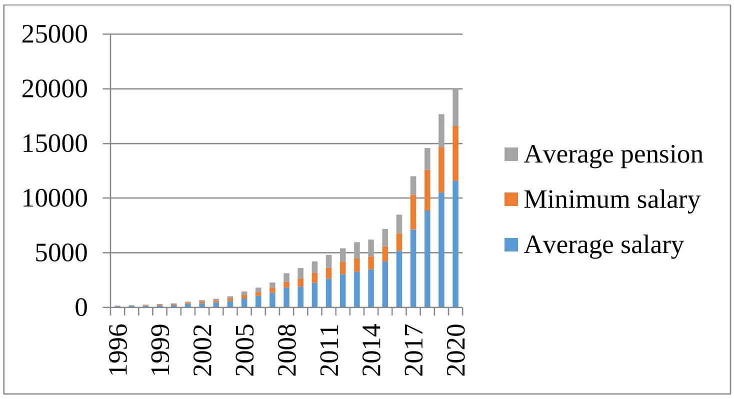
In 2017, the main focus was on productive employment and labor market reform; creating a fair pension insurance system; development of social and rehabilitation services in territorial communities; ensuring the protection of children's rights. As part of the decentralization of rights, each united territorial community has the right to establish a service for children. The number of family-type orphanages also increased by 46. In 2017, for the first time, persons with disabilities were fully provided with technical rehabilitation facilities. During 2017, 71,240 families of ATO participants received social services.

The same tasks as in 2017 were key in 2018. Social support for families with children was provided at the community level through the coverage of their social services. As of January 1, 2019, 2.1 million recipients received state assistance to families with children. Measures to improve the social protection of anti-terrorist operation participants and their families continued.

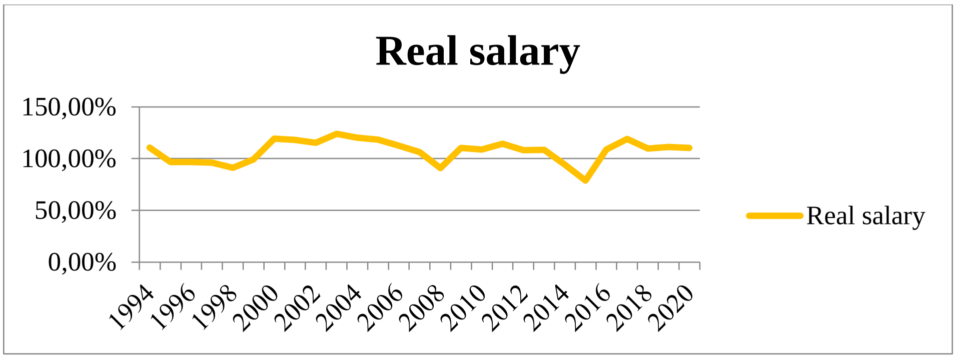
In 2019, the social policy program was aimed at supporting families in difficult life circumstances (UAH 63.0 billion is provided, which is 8.8% more than in 2018 - UAH 57.9 billion) and other categories of the population ; the creation of conditions for ensuring a dignified old age of the elderly continued, the social insurance system developed; As in previous years, it is mandatory to ensure the protection of the rights of children and the social protection of persons with disabilities. This year, all types of income grew due to higher state social standards and guarantees. The work of the Pension Fund on the provision of electronic services was intensified (mobile application "Pension Fund"). In 2019, funds (UAH 125.8 million) were provided for the purchase of housing for orphans and children deprived of parental care. This year, all 100% are provided with technical means of rehabilitation of people who need them.

The strategic goals of social policy in 2019 were continued in 2020. A new priority of social policy was the provision of financial assistance in connection with the spread of COVID–19 in the amount of UAH 2.1 billion (including health care workers).

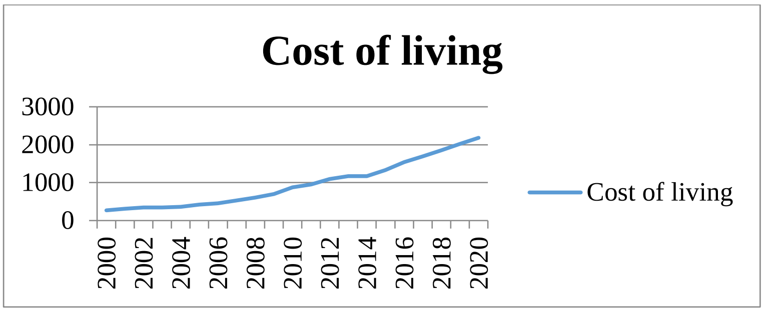
From the first years of independence until today, there is social assistance to citizens affected by the Chernobyl disaster; In 2015, anti-terrorist operation participants and victims of the Revolution of Dignity, internally displaced persons, began to receive assistance.



Graphic table [1]



Graphic table [2]



Graphic table [3]

Conclusion. At each stage of its development, the authorities in the country developed social policy and conducted social activities differently. Even during the Soviet rule in the country, social policy has already developed according to the needs of the population (providing shelters for disabled servicemen, providing them with pensions; providing assistance to the unemployed; insurance against injuries at work since 1986 – assistance to victims of the Chernobyl accident; rehabilitation of children in treatment and prevention facilities, etc.). At the beginning of the formation of Soviet power, communist ideology set itself the task of social policy, even if in practice they were difficult to implement due to lack of necessary resources. In the 1920's and 1950's, social policy focused on the needs of the state economy and rapid industrial growth. Since the 1960s, social policy has been on an equal footing with the economy; The government's goal was to attract public funds to increase the production of consumer goods, everyday consumption and the provision of free or almost free social services. Analyzing the Soviet period in power in general, we can conclude that social security and social policy were closely linked to stimulating labor activity, improving labor discipline, stimulating productivity growth. Since 1991, the government has been trying to overcome the crisis and improve social life. A program of housing subsidies (1995), assistance to low-income families (2000), the adoption of the Law on the Subsistence Minimum (1999), and the formation of a state insurance system were adopted; signed the Declaration of State Sovereignty, the European Charter of Solidarity, which protected the rights of the economically active population and the population as a whole. During hostilities in the country, regardless of the period of development of Ukraine, the budget was aimed at providing and supporting those segments of the population who need it most (families of combatants; the military themselves affected by the military conflict; civilians, who found themselves in a difficult financial situation or without housing, etc.), but stable indicators of living standards could suffer (these are the minimum wage, pensions, subsistence level, etc.).

However, despite any conditions of political and economic development or decline, the country's budget is formed in such a way that the implementation of social policy and the payment of social benefits take place.

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CANADA'S GENDER POLICY IN THE PUBLIC ADMINISTRATION SYSTEM

The aim of this study was to investigate gender policy in the public administration in Canada where both men and women can reach their full potential.

Social traits attributed to men or women are called gender. Gender stereotypes are ideas about social roles for men and women that are based primarily on biological characteristics. The so-called traditionally feminine traits are called femininity (or femininity), and masculine - masculinity (masculinity).

Michael Kimmel, a well-known American sociologist and author of Gender Society, metaphorically called this opposite understanding of differences between men and women "an interplanetary theory of gender differences," referring to John Gray's popular bestseller Men from Mars and Women from Venus. But why do we want to find radical differences between men and women, if there are many more similarities. We forget that women (as well as men) can be more different (for example, in terms of economic income or class, position, ethnicity, health, etc.) [2, p.145].

Implementing gender policy in Canada

Gender policy is a strategy aimed at ensuring equal rights, freedoms and opportunities to unleash the potential of women and men in the context of the development of gender democracy and gender culture in society.

State gender policy is a strategic activity of the state carried out through joint actions of all stakeholders in order to provide equal opportunities for women and men to enjoy guaranteed rights and freedoms.

Gender policy in the public administration system is a component of state gender policy, which is focused on the implementation of gender parity as a principle of equal representation of women and men in any government at the national, regional and local levels in accordance with modern management requirements.

History of gender equality development

The issue of gender equality is quite relevant today, as evidenced by international agreements signed by a number of countries. For example, the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW 1981) was signed in 1981, Article 10 of which deals with equal rights in education. In addition, the United Nations Millennium Development Goals (Millennium Development Goals, 2001) aim to provide primary education for all without exception and to promote gender equality and the advancement of women. Ukraine is actively involved in globalization processes. The introduction of gender equality between women and men in Ukraine is enshrined in law. The Law of Ukraine "On Ensuring Equal Rights and Opportunities for Women and Men" №2866-IV, adopted on September 8, 2005, defines the main directions of the state policy on ensuring equal rights and opportunities for women and men. In addition, since July 1, 2006, the Ministry of Justice has been conducting gender legal examination of those draft legal acts, the subject of which concerns human rights and freedoms. Ukraine also signed an international commitment at the UN Millennium Summit in September 2000, which stipulates that Ukraine will ensure gender equality during 2001-2015 [1].

Pedagogical aspects of gender education in Canada

Some pedagogical aspects of gender education have been studied by both foreign and domestic scholars. Despite a significant amount of research on gender issues, domestic gender pedagogy is in the early stages of its development. Therefore, many aspects of gender education are insufficiently studied, the terminology is unclear, and the methodological basis of gender education requires development. Canada has already extensive experience in implementing gender equality. Canada's secondary schools actively discuss gender issues in a variety of subjects, develop curricula, and publish textbooks and manuals on gender issues.

In Canada, the concept of gender is understood as a set of socially constructed roles and responsibilities, personality traits, attitudes, behaviors, values, relative power, and influence that are differently attributed by society to the two sexes. While biological sex is determined genetically and anatomically, gender is an acquired identity that is learned, which changes over time and varies greatly within one culture and in different cultures. Gender is relative and does not just concern women or men, but the relationship between them.

In Canadian society, gender equality in education is based on gender equality. Gender equality in education is seen as ensuring fair treatment of all girls and boys, women and men in the education system.

Gender equality is concentrated in three aspects:

- equality of access,
- equality of opportunity

- equality of achievements of boys and girls, women and men in the education system.

Equality of access to education is equal opportunities for basic education. The main indicator of equal access to education is not the statistics of students entering school, but the actual attendance of lessons.

Equality of opportunity is achieved through the fact that boys and girls are treated impartially in the classroom, given the same amount of attention, boys and girls have the same opportunities to learn. All students study according to the same curriculum, but learning takes place in different ways and methods according to different learning styles. Training is carried out using unbiased methods and materials that do not contain stereotypes. Boys and girls have equal freedom to study, research and develop skills in academic subjects and in extracurricular activities in a safe environment [3].

Equality of achievement is that boys and girls have equal opportunities for academic achievement. Learning achievements are also based on the individual efforts and talents of students.

The main directions of modern Canadian foreign policy

The foreign policy of any state is determined in two different aspects: in the international system in which the state must operate and in a certain "niche" that the state occupies in this international system. Every foreign policy participant must confront threats by maneuvering between external and internal environment. It is the ability to choose the right strategy of the state that allows it to be an influential subject in international politics.

The fundamental principle of Canadian foreign policy is the peaceful coexistence and guarantee of common security in the context of modern multiculturalism as a policy, as well as a social interstate phenomenon. It is peace and tolerance that determine Canada's unwritten foreign policy strategy. Canada's foreign policy is shaped as a dynamic process, influenced by a number of factors, both external and internal. It is a well-known concept that the domestic and foreign policies of one state are interconnected and complementary.

In particular, the state-building factor is important for Canada. The state arose not as a result of revolution or war, but by evolution, which explains the deep-rooted tradition of resolving the most complex domestic political disputes and conflicts through negotiations. As a result, Canada has formed a kind of peacekeeping state brand.

External factors include the geographical location of Canada. The country has a single land border with the United States, which is a very influential neighbor and the closest political and military ally of Canada. Because of this, the United States has always influenced and is likely to have a significant impact on Canada's government activities, including its foreign policy.

Speaking about the conceptuality of Canada's foreign policy, it should be noted first of all that in foreign policy the government relies on the institutions of multilateral diplomacy. Canada's international activities are characterized by ideological and political tolerance. Among the foreign policy attitudes, we can also highlight the active involvement in solving a wide range of global problems of today, to which Canada contributes through international initiatives in various fields [4].

Conclusions

There has been a growing awareness of gender equality issues around the world in recent years. Gender equality implies a state of affairs where both men and women can reach their full potential.

So, what exactly does the concept of "gender equality" entail?

Gender equality is participation in decision-making and resource allocation regardless of gender.

Gender equality is cooperation and partnership between women and men.

A country like Canada already has experience in implementing gender equality in politics. Therefore, at the turn of the XX-XXI centuries, Canada chooses the role of peacemaker and, to some extent, arbiter, as shown by its foreign policy. Thus, the state has identified priority foreign policy vectors, including relations with the United States.

Canadian foreign policy towards the United States is characterized primarily by its systemic and comprehensive nature, as there has long been a mechanism for cooperation between the two countries. Problematic for Canada is the pronounced asymmetry in relations with the United States, which is the task of Canadian diplomacy.

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LEGAL REGULATION OF YOUTH EMPLOYMENT IN UKRAINE

There are various factors influencing youth transition to work. They include external factors, such as the state of the country's economy, structural factors, such as skills mismatch with the labour market, and personal factors, such as disability and health problems, alcohol, drugs and crime, alongside other issues that can disadvantage young people.

Ukraine continues to face challenges in the areas of employment creation and working conditions for those who are currently employed. These challenges have been exacerbated by the ongoing military conflict in East Ukraine. The decline in production and the slowdown in economic restructuring have triggered a lack of good quality jobs with decent conditions and wages, especially for young people.

Job creation occurs predominantly in the informal and low-productivity sectors (the less knowledgeintensive services and medium- or low-technology sectors with pollution externalities). The structure of the available jobs for waged employees in the formal sector has changed from high-technology manufacturing and knowledge-intensive services towards less knowledge-intensive services (such as retail trade) and basic manufacturing jobs. Being predominantly 'survival jobs', they can hardly contribute to long-term development, rather they have a potentially detrimental effect on the future quality of the labour force. [1, c. 102-111]

The main areas of concern regarding the working conditions facing young workers relate to noncompliance with employment regulations, high levels of informal employment, low salary and violations regarding work safety. In general, the average national salary is low, currently standing, which makes Ukraine one of the lowest salary countries in Europe.

The low level of wages has a negative impact on employees' motivation and hinders any potential increase in labour performance and progressive structural changes in employment. It also extends the length of time it takes the unemployed to find work, aggravates poverty and the problems associated with low incomes, and facilitates the spread of illegal practices and a range of anti-social phenomena among young people. [2, c. 23-45]

Bribery and other forms of corruption are widespread in the Ukrainian labour market; in order to secure a lucrative job in the public sector one must pay a sizeable bribe or trade in favours.

The mismatch between skills demand and supply remains substantial. First, the labour market is facing a sizable qualifications mismatch, characterised by an oversupply of higher education graduates in relation to the number of graduate-level jobs, forcing many to work in roles for which they are highly over-qualified.

Second, the structure of youth education, in terms of the fields of study, remains unbalanced with regard to both current and anticipated needs in the labour market. There is a growing disparity between the proportion of young students focusing their studies on the social sciences, business and law and those opting to study the natural and technical sciences. Many graduates who follow the former fields of study have to accept jobs below their level of qualification. [3, c. 65-89]

Third, there are shortages in the labour market, as there is a persistent need for skilled workers such as drivers, cooks, garment industry workers and construction workers.

Fourth, the mismatch between skills supply and the requirements of modern jobs is widening.

Youth employment is a complex issue, particularly as it is linked to external factors that countries have little say about, such as the general political and economic situation in their geographical region, as well as global or internal factors, such as changes in the structure of the economy and the labour market, and the demographic profile of the country.

Nevertheless, the impact of such major forces on the labour-market situation, there remains scope for governments to improve the circumstances of young people who are already in the labour market or to support their smoother transition into it. It is important that governments have policies in place that accompany young people in their transition into the world of work and help them to realise their full potential.

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HUMAN RIGHTS IN THE EDUCATIONAL PROCESS

The aim of my research are human rights in the educational process. Despite the fact that international treaties enshrine the right to education as an inalienable right, in some countries of the world people still cannot receive education.

Human rights reflect basic human needs; they establish the basic standards without which people cannot live in dignity. If we talk about human rights we mean equality, respect, freedom and justice. According to the Constitution of Ukraine, human rights are: the right to life, freedom of speech, the right to marriage and family and the right to education ect.

International human rights law guarantees the right to education. The Universal Declaration on Human Rights, adopted in 1948, proclaims in Article 26: 'everyone has the right to education'.[1]

In 1993 the World Conference on Human Rights declared human rights education as "essential for the promotion and achievement of stable and harmonious relations among communities and for fostering mutual understanding, tolerance and peace". [2] In 1994 the General Assembly of the United Nations declared the UN Decade of Human Rights Education (1995-2004) and urged all UN member states to promote "training dissemination and information aimed at the building of a universal culture of human rights".

Quality education aims to ensure the development of a fully-rounded human being. It is one of the most powerful tools in lifting socially excluded children and adults out of poverty and give them chance to have equal rights in the society. UNESCO data shows that if all adults completed secondary education, globally the number of poor people could be reduced by more than half.

The right to education has also been reaffirmed in other treaties covering specific groups (women and girls, persons with disabilities, migrants, refugees, minority etc.) and contexts (education during armed conflicts). It has also been incorporated into various regional treaties and enshrined as a right in the vast majority of national constitutions.

Human Rights Educators USA describes human rights education as a “lifelong process of teaching and learning that helps individuals develop the knowledge, skills, and values to fully exercise and protect the human rights of themselves and others; to fulfill their responsibilities in the context of internationally agreed upon human rights principles; and to achieve justice and peace in the world.”[3]

According to UIS data for the school year ending in 2018 about 258 million children and youth are out of school. The total includes 59 million children of primary school age, 62 million of lower secondary school age and 138 million of upper secondary age. 155 countries legally guarantee 9 years or more of compulsory education. Only 99 countries legally guarantee at least 12 years of free education. [4]

Although the vast majority of countries have ratified international treaties that recognise the full right to education, it is still denied to millions around the world due to lack of resources, capacity. There are still countries that have not integrated the right to education into their national constitution or provided the legislative and administrative frameworks to ensure that the right to education is realised in practice. Most of the children and adults who do not fully enjoy the right to education belong to the most deprived and marginalised groups of society which are often left behind in national policies.

What can we do to help realise the human rights to education? [5]

- raise awareness on the right to education. If individuals knows their rights they are empowered to claim them;
- monitor the implementation of the right to education and report regularly on deprivations and violations;

- advocate and campaign for the full implementation of the right to education;
- seek remedies when there are violations of the right to education;

So, our world community should focus on improving and making education accessible to all the inhabitants of our planet.

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RULE OF LAW AS A PRINCIPLE OF CORRUPTION FIGHTING

Nowadays one of the most actual problems in Ukraine which worries both ordinary citizens and the country's political leadership is corruption.

Sociological research shows that the citizens of our country do not believe in the possibility of eliminating corruption from our society.

In general, the rule of law is a fundamental principle that foresses for the equality of everyone before the law and the inevitability of punishment for its violation and covers virtually all aspects of life of Ukrainian citizens: from personal security, property rights and conflict resolution, which determines its special importance as a basis sustainable development of society and an effective means of combating corruption [1, c. 130]. In this sense, it must be recognized that in a state governed by the rule of law, there can be no other means of combating corruption than legal ones. As a result, those means of combating corruption that may be effective, but are contrary to the constitutional principles of the functioning of the state and society, should be considered unacceptable [2].

The rule of law as a principle of combating corruption necessarily requires the creation of a strong and independent system of justice as the main means by which its implementation is ensured, the transfer from the level of "de jure" to the level of "de facto".

The spread of corruption is the reason for the lack of the rule of law. The experience of the countries of the world shows that the implementation of the rule of law in public life is impeded by corrupt judges, lawyers, prosecutors, police, investigators, etc.

It is important to note that corruption weakens the accountability structure responsible for the protection of the rule of law and contributes to a culture of lawlessness. the most laws are not obeyed successively and as result of it many illegal actions are not punished.

There is no doubt that corruption can be defeated with a powerful state where all democratic rules and principles are observed. But this fact needs clarification.

Firstly, democracy unlike authoritarian orders is based on the restriction of political power which as a result cannot become a self-sufficient political force.

Secondly, democracy needs such adequate legal forms that will not allow the emergence of a regime of permissiveness, power of the crowd, or an authoritarian (totalitarian) regime.

Thirdly, the democracy regime takes care about human rights and freedoms. This means that the strength of the state in the fight against corruption can be ensured only in the conditions of real rule of law. And this requires the efforts of the whole society. In my opinion such counteraction will be ineffective without the participation of citizens. According to D.O. Vovk and D.S. Boychuk opinions, the rule of law requires from the state not only "fair play", but enough strength to force any subject to play fair too. Unfortunately, the our state power is too weak and can`t influence on the activities of oligarchs and corrupted politicians.

Of course, the problem of corruption should not be silenced, but at the same time we should show positive examples: honest officials and judges, cases where corruption has been overcome by simplifying regulation or increasing transparency. People should understand that everyone will be held responsibilities for their illegal actions and it doesn't matter what position he or she holds.

In view of the above, I want to point out some ways to solve this problem. In my opinion, this is not an easy task, but we are able to do it in the following steps:

1) the formation of anti-corruption culture in society;

2) the establishment of an independent and impartial judiciary, the implementation of measures to strengthen the integrity and prevent corruption of judges without compromising their independence in order to ensure a fair decision of the case.

Of course, it is not a complete list of measures we should to do. It corruption combating is long process and we can`t solve this problem immediately.

Hegel emphasized: "The state exists for man, not man for the state". And to ensure such a state is possible only in the conditions of the rule of law and the eradication of any manifestations of corruption in society.

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THE MONOPOLY OF THE BAR

The aim of this study was to analyze the reform of the judiciary and related legal institutions, the pros and cons of the introduction of a monopoly of the Bar and its impact on the rights of attorneys, other lawyers and their clients, taking into account changes in Ukrainian legislation. On the basis of this research the data from different material were received.

On October 27, 2014, the President of Ukraine Petro Poroshenko established the Judicial Reform Council. The aim of the reform was to implement the principles of the rule of law and to ensure that everyone has the right to a fair trial by an independent and impartial tribunal.

As a result of the reform, the four-tier judicial system was transformed into a three-tier one. New qualification requirements for judges of the Supreme Court of Ukraine are legally established. The Higher Anti-Corruption Court and the Higher Court of Intellectual Property were established. The order of appointment and transfer of judges has been changed. The institute of a constitutional complaint of a citizen to the Constitutional Court was introduced. The monopoly of the Bar on representation in courts was gradually introduced [4].

According to Article 131-2 of the Constitution of Ukraine, the Bar operates in Ukraine to provide professional legal assistance. The independence of the Bar is guaranteed. The principles of organization and activity of the Bar and the implementation of advocacy in Ukraine are determined by law [1, ст. 131-2].

Also, in accordance with the third part of Article 10 of the Law of Ukraine "On the Judiciary and the Status of Judges", ensuring the right to protection from criminal charges and representation in court is carried out by an attorney [3, ст. 10].

This provision shows that only attorneys provide professional legal assistance. Therefore, it can be concluded that only they have the exclusive right to represent interests in court and criminal proceedings.

On the one hand, representation by an attorney in court has many positive aspects, such as:

- focus on improving the quality of legal services and obtain professional assistance. Attorneys are required to pass a qualification examination. According to the first part of Article 8 of the Law of Ukraine "On the Bar and Legal Practice" a person who has expressed a desire to become an attorney and meets the requirements set by law, has the right to apply to the Higher Qualification and Disciplinary Bar Commission [2, ст. 8];
- a person wants to become an attorney must improve his/her professional level every year. Appropriate actions only contribute to the renewal, maintenance and acquisition of new knowledge, which increases the professionalism of legal aid;

- the advantage is that the attorney is obliged to keep the attorney-client confidential information, while the rules do not apply to other lawyers, which can negatively affect the interests of clients;
- the attorney bears disciplinary liability for violation of the Law of Ukraine "On the Bar and Legal Practice". Disciplinary sanctions are an additional guarantee of proper legal assistance and adherence to the principles of Bar`s activities;
- an important tool in gathering evidence and building a proper legal position are attorney's letters of enquiry.

But in contrast to the above, there are important factors that highlight the negative aspects of the introduction of a monopoly of the Bar and cause a great need to abolish it. These are the following factors:

- the removal of the monopoly of the Bar will give the right to specialists in the field of law to represent the interests of citizens in civil and administrative cases;
- the negative aspect is that legal entities should hire attorneys to represent their interests in the courts instead of company`s lawyer;
- at the moment, Ukrainian law provides for professional training for attorneys, it is quite a long period and it is quite a significant problem for legal experts who are already working;
- it should be noted that the abolition of the monopoly will give clients more choice among defenders, which is also a positive point, because not everyone can afford the services of an attorney;
- clients will also be able to save budget resources for the provision of free legal aid, as a monopoly of the Bar may lead to the fact that some citizens will find legal aid unaffordable due to the high price.

Thus, analyzing all the above, we can say that the abolition of the monopoly of the Bar is a step forward in reforming the Ukrainian judiciary. It will create competition not only between attorneys but also between other legal specialists. It will improve not only the quality of services, but also the attitude to clients.

The monopoly of the Bar is a negative legal phenomenon in the process of judicial reform. It hasn't improved the quality of legal services. The practice shows a lot of negative facts: usurpation of power in the legal profession, destruction of legal self-government and so on.

In addition, it should be noted that the level of monopoly of the Bar that currently exists in Ukraine is far from the level of monopoly of the Bar practiced in European countries (although European practice has become an example on which the Verkhovna Rada of Ukraine relied in introducing this monopoly). After all, the Bar protects its privileges, but not the legal rights and interests of its clients. To my mind, clients should be attracted by high qualification, legal competent and irreproachable reputation. But in the same time, the force of law shouldn't be used.

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LEVEL OF SOCIAL PROTECTION UNDER QUARANTINE RESTRICTIONS

Abstracts of the article

1)The current level of social protection in Ukraine

2)Financing of social protection in Ukraine

3)The impact of the pandemic on the level of social protection and its financing

The concept of state social assistance

In a broad sense, state social assistance is all types of social assistance (including lifelong scholarships, subsidies, compensations, other social benefits, etc.), which are appointed by the authorized bodies at the expense of the State and / or local budgets in the manner prescribed by current legislation.

Social benefits are important in the social security system of the population of Ukraine. The practical value of social assistance is that every citizen of Ukraine receives the right to material security at a level not lower than the subsistence level, if for reasons beyond his control his average monthly income does not meet the statutory level, and if such a citizen due to various circumstances is not insured in the system of compulsory social insurance, or if the length of his insurance period does not entitle him to receive social insurance benefits

Hypothesis

I assume that due to a combination of factors, the sphere of state and social assistance does not have opportunities for full-scale development and general prosperity. Such factors include the pandemic, the war in the East, the economic crisis, and the shortcomings of the public administration system.

Thus, it is necessary to gradually solve such problems to improve the overall situation. The overall improvement of the situation, according to my hypothesis, will require a large amount of resources, the involvement of a large number of qualified specialists and years of time.

Social protection in quarantine

The COVID-19 pandemic and related quarantine restrictions have exacerbated systemic problems in health, social, educational and labor policies.

Social protection and state aid are the most important components of the welfare state, the overall level of development of the country depends on the effectiveness of social policy, so the level at which the level of state aid is maintained by the state pursuing an effective social policy is very important.

The draft law on the state budget for 2020 has reduced funding for the social sphere, the main changes are as follows:

Major changes in social protection programs, UAH million				
program	was	became	change	%
Advanced training of specialists in the social protection system	0,7	0	-0,7	-100,0
Payment of benefits and housing subsidies to citizens to pay for utilities, purchase of household fuel in cash	47 570	39 329,5	-8 240	-17,3
Implementation of the pilot project "Development of social services	100	10,0	-90	-90,0
Reimbursement of part of the costs for the implementation of measures for the implementation of state programs of social protection	150	10,0	-140	-93,3
Measures for social labor and professional rehabilitation of persons with disabilities	1 532,6	1 195,6	-337	-22,0

Such changes in the financing of social protection significantly reduce its effectiveness, there is a general trend of stagnation in all spheres of life in the country, and the sphere of social security becomes another indicator of which it consists, but despite such negative statistics in 2020 the situation stabilized in 2021. The draft law on the state budget for the respective year increased the funding of social protection by UAH 5.7 billion, said one of the Deputy Ministers of Finance Roman Yermolychev.

Conclusions

In my personal opinion, the sphere of state aid is extremely important, but in Ukraine it is characterized by a low level of quality of services provided to citizens and insufficient stability of funding. Quarantine restrictions have further aggravated this situation, and partial stabilization does not give the impression of a full-fledged solution to the problem.

I think it is expedient to pay more attention on the part of public administration to the problems of social protection of the population and the improvement of working conditions for skilled workers in the field of social security.

The improvement of the situation is approaching with the solution of the epidemiological situation, the creation of collective immunity and mass vaccination will allow more different types of investment to be allocated for social protection

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DEVELOPMENT OF SOCIAL SECURITY (SOCIAL PROTECTION) OF THE POPULATION

Formulation of the problem. Social protection and social security have always played a leading role in ensuring the well-being of the population. From time immemorial, people have needed to protect themselves from various adverse life situations. The whole system of social protection depends directly on social policy, which regulates social relations in society, carries out the distribution and redistribution of income; forms social guarantees; creates a system of social protection; ensures the development of elements of social infrastructure. The countries of the world are facing new challenges every day, which are related to military-political conflicts, migration problems, food crises, corruption, etc. All this requires radical reforms of social protection legislation in clear coordination with the strategy of economic modernization.

Analysis of recent research and publications. The analysis of published scientific works showed that the development of social protection and social security was studied by R. Wilkinson, F. Hayek, A. Mueller-Armak, G. Myrdal, W. Oiken, T. Saratsina and others. Among domestic researchers it is worth noting the work of such authors as T. Artyomov, O. Belyaev, Z. Galushka, O. Golovnin, A. Novak, E. Nikolaev and others.

Setting objectives. The main task of this work is to study the development of social protection and social security, study the historical aspects of development, search for shortcomings and compare the past sphere of social security with modernized.

Presenting main material. The beginning of social security began from the moment when people began to realize all the benefits of the established representative bodies that dealt with certain issues of local importance. After all, there was a need for protection due to unfavorable life situations, the solution of which would be aimed at making life easier for everyone in need.

Social sources of legal forms of social security have their origin in the moral principles of society, in the categories of sensitivity, compassion, justice, humanity, charity, aimed at supporting a person who is physically objectively unable to provide for themselves and their dependents. At the heart of this institution is the desire of the human community to give one aspect of the public interest - the promotion of the physical existence of human society, the protection of weak, ineffective patients, the disabled, children, ultimately - say, optional, ie those who still can not work and those who persist. This desire was realized for state regulation and its assistance.

The first forms of social security were charity and community care as an expression of social assistance. However, as the public is aware of the importance of social security as one of the factors that lead to the existence of the company itself, it is established at the national level. Different organizational and legal models of social security have been created, as there are more and more problems in each country without exception, regardless of their economic orientation, form and government regimes.

In primitive society, assistance to the elderly and infirm is clearly implemented according to custom. In a slave-owning society, where the two antagonistic classes were free and slaves, slaves could not be provided with help regardless of age, disability or illness, because they were considered production and not people. Free citizens, in turn, are divided into layers depending on the condition of the property. It is known that in ancient Greece and ancient Rome showed such forms of assistance to veterans of military service as: pensions and land allotments. And also for poor free people such charity as: free distribution of bread, products, the maintenance of public baths was introduced.

Small facts in the history of Ukraine provide fascinating evidence not only about the origin of social security, but also about what was the meaning of this concept and for whom it was intended. In ancient times, the first step and attempts at certain types of social assistance were often improvised by princes. In particular, these state decisions, such as the result in 911 and 945, were made by the Kyivan princes Igor and Oleg "On the rescue of prisoners" in accordance with the plan to oblige the parties to redeem the captured Russians and Greeks and return them to their homeland.

In 996, Prince Vladimir announced a charter, which gave the clergy and church structures the right to take care of hospitals, baths, shelters for the lonely. Prince

Vladimir used many charitable events: he founded a school for teaching the poor, almshouses, founded traditional holidays, which fed and distributed alms to the poor, orphans, widows. Prince Yaroslav Vladimirovich founded an orphanage, which cared for 300 boys.

Experts believe that "Russian Truth" Prince Yaroslav was the first Slavic law, which was recorded similar to the social program.

Christianity played an important role in establishing the institution of social assistance. Bishop Pereyaslav Ephraim built hospitals for the poor and orphans and appointed physicians so that they could care for and care for the sick absolutely free of charge in other cities as well.

People's centers of mercy were charitable institutions for the wounded and old soldiers of the Zaporizhia Free Republic. Hospitals for the infirm were established with the monasteries - Pechersky in Kyiv, Chernihiv, Lebedyn monasteries near Chyhyryn, at the Lemkivsky church near Ovruch. orphanages, almshouses. In particular, this activity was activated during the hostilities.

Subsequently, the activities of various organizations and institutions to improve support for socially vulnerable groups have improved. In particular, the spread of Ukrainian fraternities - Orthodox public associations - has become widespread. Thus, in the suburbs of Lviv in the 14th century, four hospitals were opened; The Kyiv Brotherhood had its own school and hospital for the poor; Kamianets-Podilskyi opened an Armenian hospital, where patients of different nationalities were treated with funds from the local community.

In the middle of the XVII century. most of Ukraine became part of the Russian state. Due to the complication of social problems, public authorities began to introduce limited privileged charity and established forms of church-monastery care, and began to look for new approaches to combating poverty.

Social assistance was also provided by the self-governing peasant community. The community usually had an orphan council and a judge, as well as orphanages. The Ukrainian church was also a spiritual center that united a church, a school, and a hospital. At the beginning of the XX century. cultural and educational company "Education" has done a lot of social work. In 1918, the Ukrainian Red Cross Society was organized in Kyiv, which played a significant role in organizing assistance to refugees, the disabled, orphans, prisoners of war, hospitals, food, and sanitary education.

Thus, the history of our country reflects the use of various types of social assistance. However, such attention was mainly of a public nature, and was essentially social assistance that was not fully met by the needs of civil society, it was periodic and could not be mandatory. At the same time, it should be recognized that the great experience of social security has become moral, on the basis of which public opinion was created, and the representation of society on the obligation of society and the principles of basic social security organization on the need to create a state system through proper regulation; implementation of social security for the general population, not its elected part; establishment to the legislative level of social standards in this area as the minimum allowable amount of material goods, the right to which a person has.

With the development of the trade guild, craft shops, mutual assistance was introduced in connection with injuries, accidents that occurred in the workplace. There is such a form of benefits as a separate pension for civil servants. For the representatives of the dominant classes, the monarch rewarded state pensions, which were awarded for services to them. Government retirees were mostly bishops, bishops, marshals. That is, this type of social protection became a form of social security for loyalty to the monarch.

During the pre-capitalist period, the main social and legal forms of personal support for suppliers and disability were: the right as a privilege granted by representatives of the state and retired servicemen over the years or in connection with wounds received in war; charity; guardianship and care; civil support in the context of family relations; state aid to the poorest segments of the population; collective mutual assistance in the peasant community and others.

The emergence of social security as a state institution in all countries of the world was the result of the development of capitalist relations. The creation of state social security preceded private or voluntary insurance.

In particular, one of the earliest and oldest systems is the pension system, which was introduced in France. In 1681, thanks to the famous financier J.-B. Colbert introduced a pension regime for sailors, in 1790 - for civil servants, in 1831 - for the military. During the XIX century. pension regimes were introduced for local government employees, bank employees, and railroad workers.

The history of pension benefits in Italy is almost two centuries. The first pension funds come from the credit and banking sectors. In the nineteenth century, all banks, credit boxes and savings formed special pension funds for their employees. The basis for the withdrawal of other categories of workers was laid by the end of the 19th century due to the creation. Initially, members of all types of social insurance and public administration were voluntary, and the fund itself was independent of the country, but this fund was eventually transformed into a state institution of social insurance, which provided compulsory insurance of social employment in Italy.

The first legislative acts that introduced state social insurance were adopted in the late nineteenth century. In Germany - the Law on Compulsory State Insurance in the Event of Illness (1883), the Law on Insurance against Accidents at Work (1884). Subsequently, in Germany, such laws were adopted by other countries.

In Russia in 1903 the law on remuneration of workers was passed as a result of accidents. However, in essence, this law did not provide for the right of employees to material support in connection with an accident at work, but for the special responsibility of employers on the basis of civil principles.

In the first half of the twentieth century, state social security systems were implemented in all civilized countries. In some countries, Social Security Codes have been adopted, as well as certain laws on pensions, social assistance. In some countries, social security codes have been adopted, as well as various pension and social benefits.

If at the beginning of the twentieth century the subjects of social security were usually only workers and members of their families, then at the end of the century these systems in developed countries covered the systems of the whole population. Gradually, there is an expansion of social security, which provides for measures of special and additional social protection for certain categories of the population, the introduction of special targeted and comprehensive social programs, public funding through taxes and more.

Today there are the main factors that negatively affect the formation of budget resources for social protection:

1) low level of profitability of enterprises, high level of business risks, inflation, corruption, lack of information and knowledge to make effective management decisions, etc .;

2) the outflow of money in non-bank circulation abroad and the shadowing of the economy;

3) a constant reduction in the number of active working population and an increase in the number of people in need of social protection;

4) a constant increase in prices for consumer goods and services, which leads to lower incomes, etc.

In order to create an effective system of social protection it is necessary to take the following measures:

- reduction of the list of social benefits, ie waiver of those types of assistance that do not provide a significant social effect;
- improving the monitoring of the system of social benefits aimed at overcoming poverty;
- to create additional jobs for the able-bodied population, which will increase revenues to both state budget funds and social security funds;
- to ensure the stability and reliability of the institution of social insurance, etc.

Taking into account all the above factors, the current state of social protection in Ukraine can be characterized by the following features:

- extremely rapid growth in the cost of services provided by health care, education, culture, which does not correspond to their quality;
- extremely high level of state participation in the field of social protection, extremely weak participation in its functioning of the population;
- a large number of normative legal acts that regulate the activities of the social protection system and in some cases contradict each other, which indicates the imperfection of domestic legislation;
- Insufficient funds to finance measures in the field of social protection.

Conclusions. Rapid processes of market and labor globalization, periodic financial crises have become new problems of the social protection system, as today 75 to 80% of the world's population lives in unprotected social status.

In general, social protection legislation has a long history - the first "pronounced laws" in the Middle Ages on human rights and the European Social Insurance Code. Social risks in the worsening period of economic and political crises require strengthening the social protection of citizens, regardless of their residence and their personal contribution to social well-being.

As a result, the development of legislation on social protection continues and is more focused on the concept of man to ensure a minimum level of material well-being on an unconditional basis.

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STATE AND ITS FUNCTIONS

The purpose of my research is to identify the main functions of the state, to reveal their essence, the meaning of what the state and its citizens need. Also give a definition of the state, browse the literature and other interesting sources.

The state [5] is an organized social structure capable of exercising the highest control over certain aspects of the behavior of all people in a given area. Today there are different interpretations of the term "state" by legal scholars and lawyers:

- is a political organization of society that has the power to manage the territorially organized population in order to carry out general social affairs;
- it is a subject of public international law;
- is a set of official authorities (state apparatus) operating throughout the country;
- is a special political-territorial organization of society, which has sovereignty, a special apparatus of government and coercion and is able to give its orders binding force for the entire population, which is created to lead society and perform public affairs.

Each state is characterized by certain features that allow a better understanding of this complex phenomenon:

1. The presence of state sovereignty [1, art. 1-2], completeness, unity and indivisibility of power within the country and its equality and independence in international relations. State sovereignty arises from the moment of realization of national sovereignty - the right of a nation to determine its future destiny independently, including the right to self-determination and the creation of a sovereign state.

2. Territorial feature, which is characterized by the presence of a certain territory limited by the state border, to which the population (people) is fixed by means of legal institutions of citizenship (in republics) or citizenship (in monarchies).

3. Citizenship is a permanent legal relationship between the state and the citizen, which is expressed in their mutual rights and responsibilities.

4. The presence of public authority, which extends to all persons in the state.

5. The existence of a system of law - established or authorized by the state to regulate the most important social relations and the implementation of which is ensured by state coercion.

6. The presence of a tax system, a set of taxes and fees (mandatory payments) that come to budgets and state trust funds, which are collected from the population.

7. The presence of state symbols [2] (State Flag, Emblem, Anthem), monetary system, etc.

Summarizing the above-defined features, we can describe the state as a sovereign, political-territorial integrity, which has the highest concentration of power in social society and is able to solve common problems.

There are the following functions of the state:

1. The main functions of the state, which are realized throughout its existence, without which the development and existence of the state is impossible:

- economic;
- political;
- law enforcement;
- humanitarian;
- informational;
- public health;
- defense, etc.

2. Additional functions are areas of state activity that are components of the main functions and through which they are implemented.

Thus, additional functions are:

- development of medical science;
- creation of preventive and curative medical institutions;
- training of medical personnel of different qualifications;
- providing the needs of medicine with material means, etc.

The main functions of the state can be classified into different groups:

A. Internal functions, the implementation of which is carried out within the country and which ensure the domestic policy of the state:

- economical;
- political;
- social;
- ecological;
- humanitarian;
- law enforcement, etc.

B. External functions, the implementation of which is carried out in the international arena, which ensure the foreign policy of the state:

- diplomatic, related to the establishment and maintenance of relations with foreign countries;
- international cooperation in various fields;
- environmental;
- maintenance of international law and order;
- protection of the state from external encroachments, etc.

2. In the sphere of public life:

A. Economic functions [3]:

- protection of various forms of ownership;
- development of production;
- creating conditions to ensure the rights of citizens in entrepreneurial activity;
- disposal of state property, etc.;

B. Political functions:

- development of domestic policy;

- creating conditions for the development of democracy;
- ensuring the rights of citizens to free political activity;
- protection and defense of the constitutional order, etc.;

C. Humanitarian functions:

- development of science and culture;
- providing education and upbringing of the population;
- development of national self-consciousness of the people;
- protection of cultural heritage, etc.;

D. Social functions [4]:

- ensuring social protection of citizens;
- creation of a system of national and non-state social insurance;
- creation of a network of special institutions for the care of the disabled;

A. Permanent, which are implemented by the state at all stages of existence (main functions).

B. Temporary, which are implemented under certain conditions. Thus, in the event of a natural disaster or man-made catastrophe, the state takes measures to eliminate the negative consequences that have arisen, helps the victims.

The state uses various forms to implement its functions:

1. Law-making - creates the necessary laws and regulations governing public relations in various fields.

2. Organizational (executive) - ensures compliance with the requirements of regulations.

3. Law enforcement - with the help of special law enforcement agencies ensures law and order in the national economy and other relations.

4. Control and supervision, through which supervision is carried out over the exact and uniform implementation of laws by all entities.

In conclusion, I can say that the state has a lot of functions and very country in the world tries to provide the best life for its citizens. Today there is no single definition of the functions of the state. The functions of the state dependents on historical, political, social and other factors. As for me, I think the primary function is the maintenance of order in society. It is the responsibility of the state to provide such social amenities like schools, hospitals, roads, portable water, electricity, recreational facilities, housing and provide the employment for its citizens. Another important function of the state is to guarantee the rights of its citizens are protected especially the fundamental rights such as the right to life. This creates the environment for the citizens to enjoy everything the state has to offer. This also helps to make sure that citizens feel safe and secure in their homes, thereby, fostering trust and societal stability. It is also the function of a state to protect the rights of its citizens. The rights of the citizen include the right to life, freedom of association, free movement, to own property etc.

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CRIMES AGAINST MORALITY UNDER COSSACK CUSTOMARY LAW

The Zaporizhian Cossacks were a unique socio-political phenomenon, which undoubtedly had features of exclusivity and was the creator of a new form of Ukrainian statehood. Among the multiple historical and legal phenomena the study of the system of criminal offenses and penalties should be considered very important for jurisprudence. The existing researches do not sufficiently reflect the formation and development of crimes against morality in Zaporizhzhya Sich. As a rule, scientific studies highlight these issues as fragments.

The main tasks are to determine the types of crimes against morality which were regulated by Cossack customary law; to establish the reasons of recognition of the system of wrongful acts as crimes in Zaporizhzhya Sich; to identify the types of punishment which were established for committing these crimes in Zaporizhzhya Sich.

The dialectical method, comparative-historical method, and historical-legal method were used to identify historical patterns of formation and building a system of crimes against morality under the norms of customary law of Zaporizhzhya Sich.

The system of rules of criminal law, which was public, protected the internal order in Sich from criminals, and helped to establish strict discipline and subordination in the Cossack Army. Much attention in the criminal law of Zaporizhzhya Sich was given to offenses against morality and the system of penalties for their commission.

Under the Cossack customary law sexual violence towards women was a serious criminal offense against morality. It involved extremely severe punishments, «because to insult a woman means disgrace to the whole army» [2, p. 131]. Penalties, which were immediately brought into action, depended on the severity of the guilt. The status of women in the culture of the Cossacks superimposed many taboos. According to the custom, as D.Yavornytskyy admits, Cossacks did not allow women to come to Sich, and «bringing to the fortress of Zaporizhzhya Sich women, not excluding his mother, sister or daughter, the Cossacks considered a criminal offense leading to the most severe punishment» [5, p. 342] This veto was supported by the high position of religion. The existence of his glorious mother – Sich – and protection of the holy Orthodox faith were the most important things for the Cossacks.

Drinking during the campaign was another type of offenses against morality according to the norms of Cossack law [4]. In this context it should be noted that the rampant alcoholism among Ukrainian Cossacks is a contemporary myth. Such researchers as D. Yavornytskyy and J. Novytskyy noted the prevalence of Sich Cossacks' asceticism. Cossacks did not drink alcohol, did not smoke tobacco, did not know women, kept to celibate, and at their old age they often became monks in Trakhtemyriv monastery [5], [1]. During the campaign any alcohol was strictly forbidden, but some vodka stock was taken to treat the wounded Cossacks. If any of the Cossacks violated this prohibition he was pretty severely punished and thrown overboard a ship if it was a voyage. Drunkenness was not approved by the «Chief persons»: if koshovyy Sich starshyna noticed this flaw in someone from the officials, they warned him by way of special orders, ordering him to comply strictly with them.

To the crimes against morality in Zaporizhzhya Sich were also related adultery, fornication and the sin of Sodom. Zaporizhzhya Sich has always been considered a carrier of high moral values, especially on family foundations.

The most popular punishment for offenses against morality in the Cossack society was «beating with sticks» [3]. A Cossack was tied to a pole or cannon, a stick was put next to him and anyone from the free Cossack troops could «teach» the negligent companion. After the executions, which often lasted all day, the Cossack bowed and thanked the community for the «teaching».

Also, for offenses against morality a sentence of death by hanging was often inflicted. This type of death penalty was carried out in several ways: the criminal, on horseback, was brought to under the gallows or tree and throwing a loop on his neck, the horse was taken out, and the offender remained on the gallows; the criminal was hung by the feet, upside down. In addition, there was also a qualified form of hanging – for the rib on the hook.

To sum up, the criminal law of Zaporizhzhya Sich involved rather a curious system of offenses against morality whose fixing was explained by a number of reasons: the need to maintain high morale among the Cossacks, the importance of following strict discipline during military campaigns and others.

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SOCIAL SECURITY POLICY IN UKRAINE FOR 2018-2020

The article considers the effectiveness of social protection in Ukraine over the past few years. An analysis of social protection policy, the effectiveness of implemented measures to ensure the welfare of citizens of Ukraine.

Keywords: *Social protection, social politics, strategic goals, social state, poverty level.*

Introduction. Social protection is an important and integral component of the social state. Based on the provisions of the Constitution, Articles 46, the state undertakes to take appropriate measures aimed at social protection of citizens who would provide a proper standard of living. Today, the sphere of social protection of the population is in a rather difficult position. This is mainly due to the decline in economics and production in Ukraine, since "Social" is not profitable and occupies one of the leading places in the nomination "The most expensive sphere" in the budget of Ukraine. At the same time, the scope of social protection of the population needs to develop and reform, since the social climate in the region depends on the welfare of the population, which in turn affects the investment attractiveness of the community, its criminogenic situation (the more people are more unprotected, the easier they go to the crime) and the country's democracy as a whole, because only in democratic countries, the authorities provide a worthy level of life to all its citizens.

Goal. Consider the state measures in relation to social protection of the population and determine their efficiency and development.

Text. Consider one of the strategic objectives of social protection. It envisaged to improve the mechanism for preventing from the emergence of territorial communities in difficult life circumstances and included two points: to develop an early detection system of diseases, disabilities and difficult life circumstances (expiration date of 2018); To form competence in educational institutions for the preservation of social health and the prevention of social diseases (2020 years). Analyzing the decisions and bills in 2018, we can see that there are no impulses in the development of the system of early detection of diseases, disabilities and difficult life circumstances. But in 2020, the resolution of 2013 on the procedure for identifying families in difficult living conditions ceases to be valid. The reason for this is the approval of an improved resolution on the organization of social services. Regarding the formation of competence in educational institutions for the preservation of social health and the prevention of social diseases, there was no reform. Volunteer movement in Ukraine remains not developed.

Compare official household statistics that are satisfied and dissatisfied with the quality of social assistance.

	Satisfied	Not satisfied
By child care	15%	46,3%
Help at birth	27%	30,6%
Housing subsidies	27%	27,1%
Assistance to single mothers	23,7%	31,3%
Assistance to low-income families	30,1%	16,7%

Analyzing this statistic can be determined that dissatisfied families are more than satisfied. This speaks of bad quality and imperfection of laws on social assistance.

Now consider the poverty level of Ukraine since 2018. The level of poverty for expenses below the actual subsistence minimum in 2018 amounted to 43.2%, in 2019 31.2%, in 2020 45%. According to these data it can be determined that in 2020, the poverty rate of the population has increased dramatically. Such a sharp increase in general is associated with many factors, but the most important of all is the COVID-19 pandemic. Quarantine in Ukraine has adversely affected a small and medium business. And although the authorities tried to mitigate the situation with monetary assistance, but not substantially.

Conclusion. Analyzing the above it can be said that social protection of the population still does not meet the level of social state. Thus, at the moment, Ukraine is not a social state. And although the authorities are trying to develop a system of social protection, it does it too slowly and not perfect. The adopted reforms and legislative projects do not cover the full needs of the population, and compared to 2018 in 2020 the situation almost did not improve, but on the contrary worsened.

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CURRENT RESEARCH IN THE FIELD OF ECONOMICS

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USING CUTTING-EDGE TECHNOLOGIES IN THE OIL AND GAS INDUSTRY

The aim of the study is to research the effectiveness of implementation of cutting-edge technologies into the oil and gas industry, particularly information technology and digitalization. The main directions of development of the industry and the benefits of using modern technologies are determined.

The oil and gas industry is going through transformational times, as reflected in the shale revolution, the gradual increase of the use of non-renewables, the recent drop in oil prices, and the increasing efficiency of energy use. With these changes, the industry is faced with several challenges in achieving its goals of efficient and environmentally responsible operations, production optimization, and capital cost reduction [1, p.1].

Obviously, global trends in the development of the oil and gas industry indicate the need for constant study of the market to adapt to internal and external changes and, accordingly, the effective functioning of oil and gas companies. In current economic conditions the qualitative complication of oil and gas development on numerous ways can be observed. It leads to higher costs and risks of participants in this process with increasing in competition in both domestic and foreign markets.

One of the areas of effective development of the oil and gas industry, which should be considered at the level of the entire industry, is to increase the technological level of enterprises and innovation. The implementation of modern information systems is one of the main vectors of current technological development of industry. Over the last few decades, companies in this sector have invested heavily in software development and new technologies to coordinate and analyze large amounts of data, identify optimal management and production pathways [2, p.20].

Using cutting-edge technologies and digitalization of the industry create opportunities to improve the environmental friendliness of the production cycle, their automation and optimization, reduce risks and costs, more efficient use of explored resources, increase safety and productivity.

In our view, it is appropriate to present the results of the global study of 2017 by Accenture and Microsoft, which, in particular, highlights the most important benefits of digitalization of oil and gas companies in the world. According to survey results, the higher speed of management decisions and their better quality were hold the first place; the second place – the acceleration of oil and gas production; and the third advantage is the reduction of business risk provided by real-time management decision support. The majority of respondents expects their companies to implement digital technologies in their activities, and 73 % of respondents indicate that most oil and gas fields will be fully automated using modern information technology within three to five years [4].

Digitalization leads in the priorities of research and development (R&D) for the oil and gas industry in 2019. Moreover, according to the DNV GL study, 60 % of respondents expect their organizations to increase spending in this area. The main priorities in the digitalization program of the industry are primarily related to data exchange, integration and access to this data (cloud programs, data platforms and data exchange between organizations). Just over two thirds of respondents (67%) say that in the future their company will give priority to the quality and availability of data in 2019.

According to a 2017 report by the World Economic Forum, digitalization has the potential to create around USD1.6tn of value for oil and gas firms. This is not lost on industry leaders: approximately three-quarters (73 %) now say that their organizations need to embrace digitalization to increase profitability, compared to 49 % in 2017. Also 60 % of all respondents to survey report that their organizations are planning to increase investment in digitalization in 2019, up from 54 % that reported the same for 2018 (Fig. 1) [5, p. 30-31].

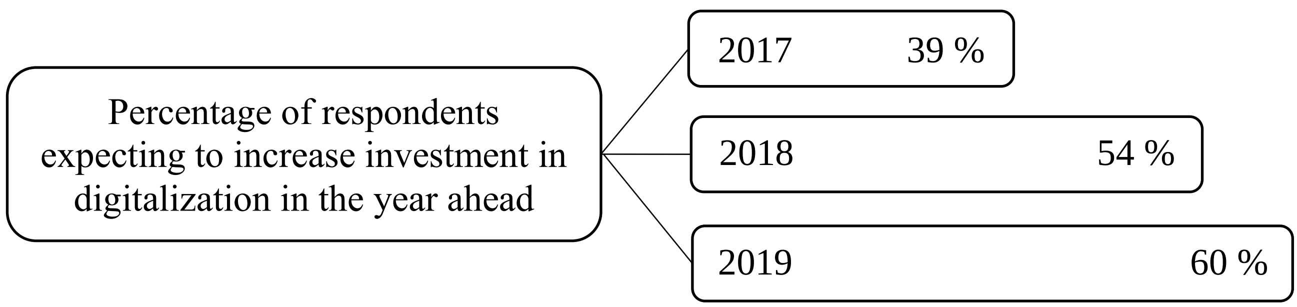

Fig. 1. Percentage of respondents expecting to increase investment in digitalization in the year ahead [5, p. 30-31]

These trends and changes in world industry, including the oil and gas industry, are due to the precondition of the gradual development of the fourth industrial revolution (Industry 4.0), characterized by the development and merger of automated production, data exchange and production technologies into a single self-regulatory system with the least (or completely absent) human intervention in the production process. Prerequisites for the development of the fourth industrial revolution are the introduction of advanced technologies in industry, namely: industrial Internet of Things (IIoT), cloud computing, artificial intelligence technology, complex information systems, the use of distributed registers – blockchain technology, smart contracts etc.

According to the concept of Industry 4.0, the oil and gas industry should include four key principles [6]:

– mutual coherence – joint activities of different production systems;

– virtualization – the ability of the cyberphysical system to observe physical processes;

– decentralization – planning and management of the production process without the intervention of the center;

– real-time mode – collection and analysis of production data in real time.

According to the reports issued by Deloitte in April 2017, the blockchain has great potential in the oil and gas industry mainly in the following four aspects: trading, management and decision making, supervision, and cyber security (Table 1) [7, p. 41432]. At the same time, global companies have already begun to invest in the development of this area, including British Petroleum and Shell.

Table 1

The main blockchain projects of the oil and gas industry in the world [7, p. 41432]

Continent	Location	Gas/Oil	Stage (Mid 2018)	Name/Company	Remark
Asia	Xiamen, China	Oil	Test	Sinochem Group	Simulated gasoline export from Quanzhou to Singapore
Asia	Abu Dhabi	Oil and gas	Test	ADNOC and IBM	Oil and gas production automation
North America	Houston	Gas	Test	S&P Global Platts	Platform for confirming transactions, reporting prices
Europe	London	Oil	Pre-launch	Vakt	Platform to cut post-trade cost
Europe		Gas	Pre-launch	OneOffice (BTL)	Platform to cut post-trade cost
Europe	Hamburg	Gas	Pre-launch	Enerchain	Platform for P2P wholesale trading
Asia	Fujairah	Oil	Live	FOIZ, S&P Global Platts	Oil terminal stock levels reporting
Africa		Oil	Test	Mercuria, ING, SocGen	Digital documents used for cargo traded three times on way to China
South America	Chile	Oil and Gas	Live	Energia Abierta	Regulator tracking national energy data
Europa	Britain, Italy, Austria	Oil and gas	Live	Interbit	Oil and gas trading
North America	America	Oil and gas	Live	PetroBLOQ	Oil and gas supply chain management
Europe	Switzerland	Oil and gas	Live	Komgo SA	Trading platform

In addition, the blockchain has significant potential for application in decision making. There are many problems in oil and gas exploration and development, related to the design, three-dimensional scanning of underground mineral data, as well as the design and maintenance of the necessary control and measuring devices. Nowadays, as a rule, months pass from the study of feasibility study to implementation. However, efficiency will be significantly improved if blockchain technology is used to virtually collect the necessary information in real time with its synchronization and coherence with different economic systems, for efficient processing, analysis and storage of data.

Blockchain permits the oil and gas industry the opportunity to reduce operating costs, speed up domestic operations and increase the reliability of their work. Prospects for the introduction of software products based on blockchain technology in the oil and gas industry are its application in the field of supply, maintenance of various types of registers, access to software products, combating DDOS attacks, distributed data storage, IIoT etc.

Currently, the use of blockchain in the oil and gas industry is still in the experimental stage. However, technology can provide many opportunities, such as improving the efficiency of management, reducing its costs, and increasing the transparency of the industry. However, the effective implementation of blockchain technologies at the level of the entire industry requires the regulation of law issues. In the future, the number of blockchain solutions in this area should increase, and the benefits of their implementation will increase significantly.

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THE CONCEPT OF THE INTERNATIONAL BRANDING IN THE STRATEGY OF MULTINATIONAL CORPORATION

In the XXI century, in the conditions of liberalization of international trade, the active development of international economic integration, the concept of international branding has become a method of increasing capitalization for transnational corporations (TNCs). National capital markets are increasingly responding to international brand valuations. If we compare the portfolios of the most powerful international brands with their portfolios of securities, then from year to year there is a strong influence of the former on the latter. Thus, the value of a trademark and its internationalization becomes an effective way to increase the capitalization of transnational corporations.

International branding has gone through several stages of evolution [2, p. 40 41], but he only became such at the final stage of his development, which took place from the beginning of the 1980s. This stage is marked by many mergers and acquisitions of TNCs. At the same time, studies appeared that viewed the brand as an intangible asset.

The key task of managing an international brand should be to increase its capitalization, since a brand with a high cost affects both the demand curve and the supply curve due to economies of scale in production and sales, greater loyalty of intermediaries, reduced staff costs and costs of attracting external borrowing.

In addition to assessing the value of an international brand, the most important start in its concept is positioning, which, obviously, is an integral part of branding. Its goal is to put a trademark in the minds of consumers so that the company gets the maximum benefit from it [2, p. 336]. Positioning is the brand gaining the desired strategic position in the market relative to its competitors [3, p. 158]. Well-known experts E. Rice and J. Trout believe that positioning is a work with the way of thinking of potential buyers. To make a decision on positioning an international brand, it is necessary to determine primarily the sphere of competition [4, p. 36 37]. The decision to choose target foreign markets for promoting and positioning an international brand is one of the most important decisions in the field of positioning, since the decision to serve a specific target audience determines the nature of competition.

An important component of an international branding strategy is the differentiation of strong brands in the global market. Differentiation is a method by which manufacturers try to isolate their product from the total mass of similar products in order to draw the attention of buyers and consumers to it [3]. From this definition, it becomes obvious that the key to differentiating a product is to create an impression of a significant difference between the product and existing analogues. There are different strategies for brand differentiation in the global market. Differentiation based on the product is made according to its operational qualities, service life, reliability, design style, some parameters of the service, etc. To select a differentiation strategy, it is necessary to determine which property of the product or the characteristic of the service is of the greatest value to customers, and prepare a proposal that will exceed consumer expectations. According to experts, this process can be divided into three stages: a) creating a model of consumer preferences; b) building a hierarchy of consumer values; c) definition of a package of consumer values [5].

An important element of the concept of international branding is the increase in the value of international brands themselves. The factor of global brands has a direct impact on their value.

Most TNCs seek to increase their brand capital: the importance of this was realized in 1988 when Philip Morris acquired Kraft Foods for $ 12 billion, which at that time was six times its book value [1, p. 213]. Corporate partnerships and alliances also have a positive effect on the value of international brands.

A strong international brand is able to influence the stock price of TNCs and its profitability. So, a strong brand, according to some experts, exceeds the share price by 57% compared with a weak one. Currently, tangible assets for a typical company account for 25% of its total value, while three decades ago this figure was 80%.

Currently, each transnational corporation is developing a brand strategy that defines key characteristics that differentiate the brand, the structure of the company's divisions and its products, key brand audiences and positioning strategy. Effective brand building (brand building) helps to increase the added value of the company's output; forms for her long-term stable demand; gives brands additional values that attract investors and consumers.

That is why the importance and role of branding (including international) in the last 20 years has changed significantly [6, p. 34]. In particular, there is a shift in attention from the product to the buyer, from the product to the market. There is growing interest in evaluating brand value. The practice of developed countries - the USA, the EU and Japan - indicates that the implementation of the concept of international branding allows companies to create market barriers for local competitors, simplifies the introduction of new products to new foreign markets, and makes it easier to develop new niches of foreign markets.

A strong international brand that has already gained customer loyalty in a number of markets has great potential for expanding into other categories of products. In turn, it should be noted that the value of an international brand can be reduced as a result of falsifications that use the brand's reputation and experience and create on this basis products of inferior quality, but generally identical. Therefore, the protection of international brands at all levels will help preserve the reputation, value of brands, and the image of multinational companies.

In order to create a competitive international brand and ensure its degree of protection as a factor of its capitalization, it is necessary to take into account national rules for registering brands in the countries of production and sale of branded goods. It is also necessary to take into account certain international principles and the global trademark registration system defined by the Agreement on International Trademark Registration. The latter also guarantees the protection of brands and their value, as well as harmonizing the procedure for their registration.

The development of global information technologies offers great opportunities to increase the international competitiveness of brands. However, on the other hand, there are new problems in the field of their protection. The absence of a single harmonized international law in the field of intellectual property protection in the electronic environment, which has become one of the key business tools in modern conditions, makes international brands vulnerable and necessitates closer global and regional integration on the specified range of problems.

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TIME MANAGEMENT

Time management is a time management technique that helps a person to use their time properly to achieve greater efficiency in any business.

Time management processes are based on the following principles:

1. Effectiveness;
2. Motivation;
3. Correct goal setting.

A successful time manager can be considered one who is able to organize the sequence of events in his life in such a way as to always be able to work on the most important tasks now. By controlling this sequence, you gain complete control.

Conversely, a bad time manager is one who thinks little about the sequence of divisions and their own actions, but instead constantly responds to pressure and demands from other people and circumstances. [1]

The main rule of time management is planning. Sometimes it is very difficult for people to plan their time because they doubt that it will help make the activity more efficient. In addition, they are wrong, because planning saves a lot of time.

For example, even a pre-made shopping list can save many resources and greatly affect the outcome of such a seemingly simple and clear task as a trip to the grocery store. [2]

For the rational use of their time, it is necessary, first, to clearly understand their main goals. The following basic rules should be considered when planning:

– when drawing up a plan for the day to leave 40% of the time free, ie 60% of the time to take for scheduled work, 20 – for unforeseen, 20% – for spontaneous;

– it is necessary to constantly record the time spent. It should indicate how and for what needs it was spent. As a result, the manager, having a full idea of the cost of his time, can make a plan for the future;

- to make a good plan with a clear indication of the time used, it is necessary to divide their tasks into long-, medium- and short-term;

– the basic principles of drawing up a plan: regularity, system, consistency. [3]

Research

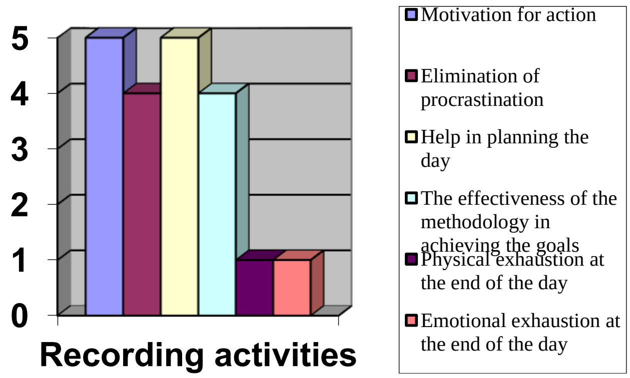
The future manager needs to learn to use his time rationally, so I conducted the following research: for three days I used three methods of proper use of time, in order to check how exactly the efficiency of my day will change.

Day 1.

Early today, a list of tasks to be completed during the day was compiled.

Results:

1. Read 2 chapters of Adam Smith's book +
2. Learn English +
3. Work on a project on microeconomics +
4. Prepare for the modular test –

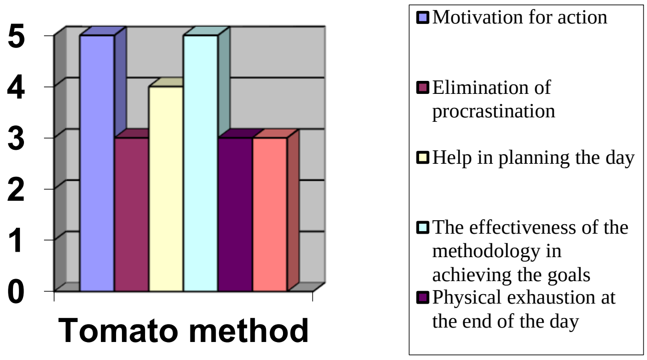


Day 2.

Today I used the "tomato" scheme. The Tomato Method is a time management technique proposed by Francesco Cirillo in the late 1980s. The technique involves increasing the efficiency of work at lower time costs due to deep concentration and short breaks. [4]

So, you need to work 25 minutes and 5 minutes to rest.

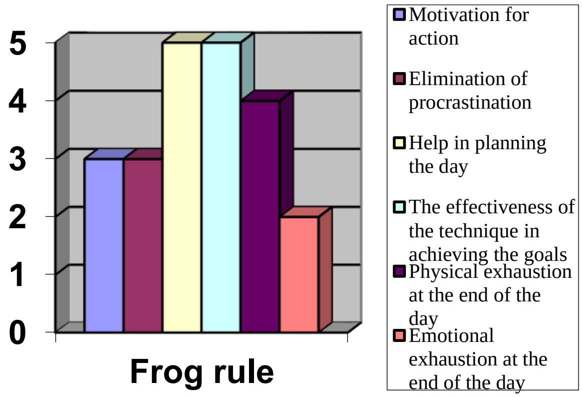
Results:



Day 3.

Today I used the "frog" rule. Not always all tasks bring me pleasure, and I always postpone them to the next day, it increases tension and provokes me to stress. So today, I did these tasks in the morning so as not to postpone them for the next few days.

Results:



Conclusions: each method has its effect; they helped me to be productive during the day, although sometimes it was a little difficult. Capturing activities motivated me to take action, helped me plan my day, and eliminated procrastination. The "tomato" scheme is effective in achieving the goals, but a little emotionally draining. The "frog" rule helps in planning the day, but is physically exhausting because you need to wake up early. As you can see, each of these techniques has its pros and cons. For me, the most effective method was to record activities, because I realized how effectively I used the time during the day. This method helps to control your day.

The prospect of further research is an empirical analysis of other methods of "time management" (highlighting the main – always in the forefront; the elephant method; the method of Swiss cheese, etc.), in order to increase the validity of research results and improve their own skills.

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THE SWOT ANALYSIS OF THE IMPLEMENTATION OF THE EU ASSOCIATION AGREEMENT IN THE SECTION OF SANITARY AND PHYTOSANITARY MEASURES

The implementation of the Association Agreement between Ukraine and the European Union is an important step in the integration of countries, including modernization of the Ukrainian economy, entering the European market and other markets, attracting foreign investment, developing scientific and technological progress, increasing the competitiveness of domestic producers and a number of other benefits.

The fundamental principle of this agreement is the gradual approximation of Ukrainian legislation to EU legislation and standards. Especially this refers to the agricultural sector. "We can group these actions into three blocks. Technical requirements are related to the safety of goods, technical standardization, the packaging and the marking of the foodstuffs. Sanitary and phytosanitary measures are about the food safety, the improvement of people's, animals' and plants' health, products' protection from pests and pathogens. Ecological requirements include import measures of fertilizers, crop protection agents, endangered species of animals and the waste of the agrarian sector to EU countries [1].

The Comprehensive Implementation strategy of Chapter 4 (SPS Strategy) was approved in order to reach goals more successfully. While analyzing this chapter, the schedule of systematic legal approximation of Ukrainian legislation to EU legislation was defined. The principle of equivalence (art. 66), transparency and information exchange (art.67) were explained. The recognition of these principles will decrease the restrictive effects of SPS [2].

The implementation of AA between EU and Ukraine in the section of SPS has its own impact on the economy, population and international market. The SWOT-analysis is presented below. It contains weaknesses and strengths of the Ukrainian agricultural sector and opportunities and threats, which can appear in case of the AA's approval by the national government.

Strengths	**Weaknesses**
• Natural resource potential of Ukraine; • Favorable climate conditions for cultivation crops and breeding animals • High yields • Low production cost • Increasing demand for vegetable products in the world • Wide range of goods in the animal products' market • The labor force • The leading place in export of sunflower oils, egg products and tomato paste • The production of organic products	• Non-transparency and unpredictability of Ukrainian economic policy • High level of corruption and misfeasance • Low level of material and technical resources • Price instability in agricultural markets • The system of state control over the products, supplements and GMO • Animal care • Use of different kinds of hormones (e.x. a growth hormone) • Government's support and protection of farmers • Legal and regulatory framework in the agricultural sphere • Products' quality • Export capacity • Deforestation
Opportunities	**Threats**
• Improvement of public administration in SPS sphere • Possibility for government to submit notifications and check the appropriateness to the EU requirements • Laboratory modernization (the replacement of old equipment) • Training of specialists who will undertake research in providing products' quality • Products' distribution and increasing demand at the markets • Interaction between business and government will be simplified • Prompt exchange of data between countries • Sustainable legal framework in the section of SPS regulation • Reduction of trade barriers • Production efficiency and environmental safety • Opportunity to get technical assistance from EU • The mutual recognition of fungible goods and SPS certificates • Domestic companies, which produce qualitative products, will benefit from the legislative pressure on the companies, which products have low-quality	• Significant costs and time-consuming process to comply the goods with SPS standards and requirements • Growing competition in the parameters of the products' quality • Displacement of small enterprises from the market because of their inability to modernize the production and meet new standards • Increase in prices because of higher prime cost of goods • Unpreparedness of enterprises to realize the plan of biosecurity and biosafety • High costs of improving people's qualification and providing effective control measures for animals' and plants' production • SPS's application as a disguised barrier to trade • Excessive SPS requirements • Discrimination – unequal conditions for companies and producers

• Risk reduction caused by the increasing number of pests and disease organisms • Control and clearer animals' identification, illnesses, vaccinations and mortality • Transparent conditions for doing business, increase in Ukrainian producers' competitiveness • Improving the phytosanitary situation	

Despite the fact, that Ukraine has the fertile soil, good climate conditions for the cultivation of crops and animal breeding and enough labor force, the agricultural industry needs more attention from the government. Its modernization and development can bring clear revenues to the State treasury, increase competitiveness in world markets and, most importantly, improve product quality.

But, of course, we can find weaknesses, which impede this process. Underdeveloped support and protection system of farmers, lack of logistical resources, non-transparent and unpredictable economic policy lead to unwillingness of entrepreneurs to enter foreign markets in such a way reducing the share of the country's export potential. The AA implementation in the section of SPS gives motivation to solve current problems and open up new possibilities for government, entrepreneurs and consumers.

For government. The principle of transparency will contribute to reformation of public administration in SPS sphere and improvement of its effectiveness. In particular, giving proper and timely information about any changed or new-created acts is a mandatory requirement. It can influence on the mechanism of state regulation of products. The dialogue and cooperation between the government and enterprises will be intensified. The requirement about approximation to EU legislation will give an access to the EU market and new international markets. It will boost national producers to increase their trade volumes. The laboratories will also be equipped with new modern technologies, which help to expertize and explore the existence of pests, diseases, toxins, hormones in animals and plants. It will be easier to comply with SPS standards and requirements. But it can take a lot of time and significant financial resources to upgrade specialists' skills and to purchase the appropriate equipment.

For business. The principle of transparency will optimize the transaction costs. Better relationships between the government and business will appear. Approaching EU legislation will reduce an amount and influence of non-tariff barriers on Ukrainian exporters because of better information exchange with foreign partners and the mutual recognition of certificates. But, domestic producers can have significant costs in order to ensure that their products comply with standards and SPS requirements. That is why, small enterprisers will be probably driven out of the market. Also, they will not be able to modernize their production. But there is a way out. They can benefit from the principle of economy of scale, because their goods will have already been adapted to the international market's requirements.

For consumers. Meeting goals will contribute to better food and feed safety. More qualitative and organic products will be offered to consumers. Protection of consumers' interests will be strengthened, because they will be provided with more precise and proper information on food products. But, of course, they should be ready to the price inflation in the markets. The products' costs can be increased due to higher prices on related services, in particular, it is the adaption to the new SPS requirements.

In conclusion, signing of SPS Strategy has a positive and negative impact on economic and social prosperity of the country. These measures stay the main barriers to the free agricultural trade in Ukraine and other developed countries. That is why SPS measures need to be reviewed, changed or improved. But it is worth saying that the most important impact is the improvement of welfare, the protection of life and health of people, animals and plants.

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MARKETING FACTORS INFLUENCING THE CONSUMER BEHAVIOUR

The study of consumer behaviour assumes that the consumers are actors in the marketplace. The perspective of role theory assumes that consumers play various roles in the marketplace. Starting from the information provider, from the user to the payer and to the disposer, consumers play these roles in the decision process.

The roles also vary in different consumption situations; for example, a mother plays the role of an influencer in a child's purchase process, whereas she plays the role of a disposer for the products consumed by the family.

Some selected definitions of consumer behaviour are as follows:

1. According to Engel, Blackwell, and Mansard, 'consumer behaviour is the actions and decision processes of people who purchase goods and services for personal consumption'

2. According to Louden and Bitta, ‘consumer behaviour is the decision process and physical activity, which individuals engage in when evaluating, acquiring, using or disposing of goods and services’.

Nature of Consumer Behaviour:

1. Influenced by various factors:

The various factors that influence the consumer behaviour are as follows:

a. Marketing factors such as product design, price, promotion, packaging, positioning and distribution

b. Personal factors such as age, gender, education and income level.

c. Psychological factors such as buying motives, perception of the product and attitudes towards the product.

d. Situational factors such as physical surroundings at the time of purchase, social surroundings and time factor.

e. Social factors such as social status, reference groups and family.

f. Cultural factors, such as religion, social class—caste and sub-castes.

2. Undergoes a constant change:

Consumer behaviour is not static. It undergoes a change over a period of time depending on the nature of products. For example, kids prefer colourful and fancy footwear, but as they grow up as teenagers and young adults, they prefer trendy footwear, and as middle-aged and senior citizens they prefer more sober footwear. The change in buying behaviour may take place due to several other factors such as increase in income level, education level and marketing factors.

3. Varies from consumer to consumer as all consumers do not behave in the same manner. Different consumers behave differently. The differences in consumer behaviour are due to individual factors such as the nature of the consumers, lifestyle and culture. For example, some consumers are technoholics. They go on a shopping and spend beyond their means.

They borrow money from friends, relatives, banks, and at times even adopt unethical means to spend on shopping of advance technologies. But there are other consumers who, despite having surplus money, do not go even for the regular purchases and avoid use and purchase of advance technologies.

4. Varies from region to region and country to county because the consumer behaviour varies across states, regions and countries. For example, the behaviour of the urban consumers is different from that of the rural consumers. A good number of rural consumers are conservative in their buying behaviours.

The rich rural consumers may think twice to spend on luxuries despite having sufficient funds, whereas the urban consumers may even take bank loans to buy luxury items such as cars and household appliances. The consumer behaviour may also varies across the states, regions and countries. It may differ depending on the upbringing, lifestyles and level of development.

5. Information on consumer behaviour is important to the marketers:

Marketers need to have a good knowledge of the consumer behaviour. They need to study the various factors that influence the consumer behaviour of their target customers.

The knowledge of consumer behaviour enables them to take appropriate marketing decisions in respect of the following factors: product design/model; pricing of the product; promotion of the product; packaging; positioning; place of distribution.

6. Leads to purchase decision as a positive consumer behaviour leads to a purchase decision. A consumer may take the decision of buying a product on the basis of different buying motives. The purchase decision leads to higher demand, and the sales of the marketers increase. Therefore, marketers need to influence consumer behaviour to increase their purchases.

7. Varies from product to product because consumer behaviour is different for different products. There are some consumers who may buy more quantity of certain items and very low or no quantity of other items. For example, teenagers may spend heavily on products such as cell phones and branded wears for snob appeal, but may not spend on general and academic reading. A middle- aged person may spend less on clothing, but may invest money in savings, insurance schemes, pension schemes, and so on.

8. Improves standard of living i.e. the buying behaviour of the consumers may lead to higher standard of living. The more a person buys the goods and services, the higher is the standard of living. But if a person spends less on goods and services, despite having a good income, they deprives themselves of higher standard of living.

9. Reflects status as the consumer behaviour is not only influenced by the status of a consumer, but it also reflects it. The consumers who own luxury cars, watches and other items are considered belonging to a higher status. The luxury items also give a sense of pride to the owners.

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THE BANKING SYSTEM OF UKRAINE

The aim of this study is to do research on the banking system of Ukraine, including NBU and the system of electronic payments (SEP).

The banking system is a network of various interrelated types of banks and other credit institutions, which exists in a country in a certain historical period and functions as a single financial entity; component part of the credit system. [1, ст.13]

The banking system of Ukraine consists of the National bank of Ukraine and other banks, and also branches of foreign banks that are created and operate on the territory of Ukraine in accordance with the laws and regulations of Ukraine.

The banking system has some characteristic features. For example:

- combining many elements of the same type. Such elements are banks, the primary objective of which is obtaining profit;
- self-regulation, i.e. if one of the banks went bankrupt, then other banks occupy its place;
- availability of infrastructure, that provides effective functioning of banks and their cooperation. [2, ст. 17]

The system of electronic payments (SEP) which operates in 24/7 mode was established in August 2020. It enables banks operating in Ukraine to make payments to the recipients 24 hours a day.

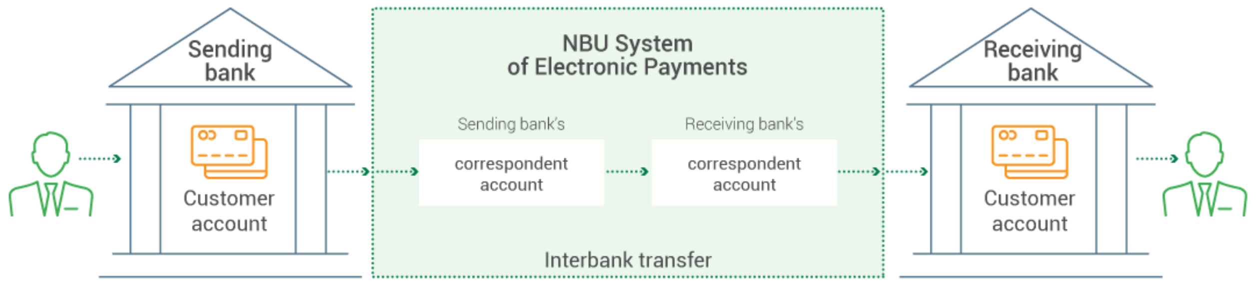
The National Bank of Ukraine has established a national electronic payment to ensure settlements of banks and their clients in Hryvna within Ukraine. The NBU is the payment institution and the settlement bank for the SEP. The SEP ensures secure and reliable transfers of funds between banks.

The SEP services 96% of interbank payments in Ukraine, which makes it an essential payment system.

The SEP is a real-time gross settlement system (RTGS) and it allows payments on a “real-time” and on a “gross” basis.

In a “real-time” mode, funds are credited to a receiving bank’s account instantly, whereas “gross settlement”, the transaction from a remitting bank to a receiving bank may take an average 10 to 20 minutes. The NBU, Ukrainian banks, and the State Treasury Service of Ukraine are participants of the SEP.

The SEP processes 1.5 million daily payments on average at a value of UAH 173 billion. However, its capacity is much higher: the system is capable of processing almost 10 times more transactions. [3]



The National Bank of Ukraine (NBU) is helping develop payment infrastructure as part of Ukraine's broader efforts to promote cashless payments. Cashless payments are a quick, convenient, and secure way of paying for goods and services. Increasing the number of cashless payments makes payments more transparent and fosters economic growth.

The NBU seeks to achieve:

- a cashless economy
- well-developed payment infrastructure
- transparent, secure, and reliable payments
- the use of innovative means of payment

The NBU regulates cashless payments and ensures their security and reliability. Individuals and companies can make cashless payments using:

- payment cards
- mobile payment instruments
- e-money
- payment documents
- trade finance transactions and tools

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CONDUCTING MARKETING STUDY ON THE EXAMPLE OF «NOVA POSHTA» LLC

The aim of this study was to investigate the reliability and speed of express delivery throughout the country. On the basis of this study the table of reliability, time and delivery service has been built.

The Nova Poshta network consists of more than 2,200 branches, more than 1,400 Post offices for sending and receiving parcels and 37 sorting and reloading Terminals. The geography of the Nova Poshta network in Ukraine covers almost 1,000 cities and villages. In addition, to delivery to the branch, the company provides address delivery in more than 28 000 settlements. Nova Poshta has a fleet of more than 3,000 cars. In 2015, the company delivered about 100 million shipments across Ukraine. In 2014 Nova Poshta entered international markets, opening offices in Moldova and Georgia. Within a year, in the fall of 2015, the company launched an international delivery service in 200 countries. The total staff of the company exceeds 18,000 people [1, p.116].

Nova Poshta, a leader in the express delivery market in Ukraine, provides fast, convenient and reliable delivery of documents, parcels and cargo to any part of the country.

The company's goal is to make delivery easy for life and business, to simplify life of its customers. To do this, the team of Nova Poshta introduces new products and services, focusing on international standards and the best world experience.

Indicators of Nova Poshta LLC

Reliability of delivery

Indicators	Units of measurement	Value	Dynamics
Cargo damage	%	0,0260%	0,0049%
Loss of cargo	%	0,0022%	-0,0009%
Delivery time			
Timely to the branch	%	99,35%	1,12%
Timely to the door	%	98,55%	0,54%
Timely seized cargo	%	99,81%	0,13%
Service			
CSL Satisfaction with the service	Bali	8,19/ 9	0,02
NPS Willingness to recommend	%	57%	0,00%

Reliability of delivery

Cargo damage – the share of cargo damage in the total number of shipments.

Loss of cargo – the share of lost cargo in the total number of shipments

Delivery time

Timely to the branch – the timely arrival of cargo at the branch.

Timely to the door – the timeliness of address delivery.

Timely picked up cargo – the timeliness of the address collection of cargo.

Service

CSL Satisfaction with service – level of satisfaction with Nova Poshta customer service

NPS Willingness to recommend – willingness to recommend Nova Poshta to your friends and acquaintances [4].

The results of a survey conducted by the international marketing bureau iVOX showed that 83% of respondents trust the Nova Poshta brand the most. This makes the company a leader in trust among all the companies that participated in the study.

About 87% of respondents used the services of Nova Poshta in 2014, and 93% plan to do so in the future.

The consumer loyalty index (NPS *) to the company also reached record levels and amounted to 51%, which is 35% more than the nearest competitor in the category of «shipping services». Note that high rates of trust in the company are observed in all respondents, regardless of gender, age and size of the settlement.

Once again, Nova Poshta confirms the title of the best company in the express delivery market. The results of the study speak for themselves. We are trusted more than any other company in Ukraine, most of the country's population uses and plans to use our services in the future. Nova Poshta was able to completely change the consumer's outdated perception of mail in general and force market players to follow our example [3].

Advantages:

- Nova Poshta works with small, medium and large businesses. It works individually with each client, easily adapting to his needs. There are comprehensive solutions for both business and online stores.
- Modern methods of cargo sorting guarantee their safety, as well as timely and accurate delivery.
- The unique scheme of the organization of internal logistics, modern park of trucks and a wide network of branches guarantees to clients the fastest delivery of freight to any corner of Ukraine.
- Opening of Nova Poshta branches in every town of Ukraine. No need to look long – the office is nearby.

Disadvantages:

- When unloading the order, the sender's data is changed to random from the list of old senders.
- Sending a parcel to the wrong address.
- The company delays payments to employees [2].

In conclusion it should be noted that the facts of marketing research prove that "Nova Poshta" provides express delivery services with the highest quality.

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THEORETICAL PRINCIPLES OF ORGANIZATION EFFECTIVENESS MANAGEMENT

The purpose of the study is to substantiate and generalize the basic theoretical and methodological principles of managing the effectiveness of the organization in modern conditions of the economic space functioning. The main objectives of the study are to generalize the essence of the concept of «effectiveness», the basic principles and criteria of effectiveness; to determine the range of factors influencing performance management; to determine the system of performance measurement indicators; to reflect the main components of the performance management system; to present the main tools for implementing the concept of BSC; to systematize regulatory and legal support of relations in the field of performance management.

The work of numerous domestic and foreign researchers is devoted to the problems of research and measuring the effectiveness of the enterprise. It is worth noting a number of scientists who in their research have highlighted the conceptual foundations of performance management and the fundamentals of measuring performance. In particular, M. Armstrong [1], P. Drucker [2; 3], O. Kuzmin [5], O. Oleksyuk [6], D. Sink [7], B. Phelps [9], F. Khmil [10] and others. In their works, economists focus on the scientific and theoretical foundations of enterprise performance management, exploring the essence and content of the of management effectiveness concept, considering the criteria and indicators for measuring performance, various methodological approaches and models for its definition.

In the research plane, the complexity and ambiguity of the «effectiveness» category interpretation is manifested in the development of many concepts and paradigms that formulate the variability of the characteristics and conceptual apparatus of effectiveness. The ambiguity of approaches to the concept of «performance» at the theoretical level leads to its identification with «efficiency», «productivity», «profitability», which is then expressed in the calculations of relevant indicators [6, p.131].

The study of the evolutionary views of different scientists to understand the essence and content of the concept of «management effectiveness» shows that the opinions of researchers are quite diverse and ambiguous. The classic of management theory P. Drucker pointed out the need to distinguish between two fundamental categories of «effectiveness», with which he associated the answer to the question: «How to do the right actions (things)?», and «efficiency», meaning the answer to the question: «How right to do the actions (things)?». This definition raises the problem of the functioning effectiveness duality: the achievement of the stated goal (effectiveness / efficiency); achieving the goal in the most economical way (efficiency). Understanding the essence of concepts is individual for each enterprise (company) [2; 3].

However, when interpreting this concept most scholars are based on the fact that the effectiveness of the enterprise reflects the economic category, which includes a set of interrelated indicators of the enterprise diagnostics from the standpoint of tasks correctness (results that meet the owners' needs, their subordinates and consumers) and rational use of resources.

The main task of performance management is to provide organizations with an advantage in human capital. Because the «human factor» is difficult to copy, it is an extremely important competitive advantage for the organization. Other competitive advantages, such as product design or business process, are easily copied. The advantage in human capital is achieved by hiring employees with valuable competition. skills and knowledge. The intellectual capital of the organization requires development - the creation of «the total amount of knowledge, skills and abilities of individuals accumulated by the firm over time and its characteristic competence» [1].

The principles of management are the rules and norms of management, according to which the management system of the organization is created, operates and develops. With their help, managers establish rules of action and behavior that are binding on all employees, coordinate, combine, coordinate and regulate their activities, make and implement management decisions, ensure the selection of appropriate management methods, and so on. Their formation is influenced by the system of priorities and values formed in the organization. [5; 10]. According to a number of scientists and practitioners in the field of management, the basic principles defining the indicators for measuring the effectiveness of the enterprise, comprise system, economic efficiency, optimality, reliability, timeliness, flexibility, purposefulness and others.

The most common criteria for measuring the effectiveness of the organization presented in the economic literature, which reflect the degree of its approach to the desired state, include efficiency, cost-effectiveness, quality of working life, innovation, market position. However, one of the priority criteria of effectiveness is competitiveness, as it is a generalizing characteristic of the formation of resource potential and it reflects the level of quality to meet consumer demand and the achieved efficiency of the enterprise.

Therefore, the correct choice of appropriate criteria for measuring performance allows managers to justify optimal management decisions, ensure the effectiveness of their implementation in solving problems of strategic, tactical and operational nature and, as a result, will be the basis for determining key areas of measurement and interpretation of results of enterprises (organizations).

Criteria for the effectiveness of the organization, in their turn, are indicated by a system of certain indicators. Indicator is a quantitative characteristic of any property of socio-economic objects and processes, a qualitatively defined value that is the result of measurement or calculation [8]. Accordingly, performance management should be considered as a process of selecting, analyzing and measuring a system of interrelated indicators to achieve effective operation of the enterprise, which is to direct the efforts of the organization's staff, its structural units to solve meaningful rather than formal tasks, to achieve socially significant results [7].

Key performance indicators are quantitative indicators of the success of the organization (enterprise) in terms of strategy implementation and achievement of general strategic goals, which can be applied directly to a particular department (or even employee). They are the connecting elements between the strategy and business processes and have a significant impact on its implementation, depending on how changes are developed and implemented in the enterprise. Ideally, you should focus only on those performance indicators that reflect progress in achieving certain goals, regardless of what aspect of the organization they represent [9, p. 97].

A sign of successful functioning and development of business entities is the achievement of goals, as well as the consistent solution of production, commercial, financial, social and other tasks, accompanied by obtaining the appropriate effects. Comprehensive analysis of the system of indicators - indicators of diagnostic performance of the enterprise involves the calculation of certain types of indicators that allow to measure the effective process of reproduction of resources of individual subsystems of the enterprise («Production», «Finance», «Marketing», «Personnel», «Innovation», «Foreign economic activity»). However, the main indicator in determining the results of the enterprise in the short term are performance indicators that set the level of profitability, various indicators of profitability. For the long term it is necessary to ensure the appropriate level of enterprise development.

The most popular concept of performance management is the strategic approach of a balanced scorecard of D. Norton and R. Kaplan, which allows company management to plan and implement their visions and strategies in four aspects: financial, customer, internal business processes, training and growth; control the current efficiency, as well as aimed at processing information about the future prospects of the enterprise. The main feature of the system is that it is closely related to business processes that are aimed at meeting customer needs and in which all employees are involved. The so-called "balance" in the concept of BCC has a multifaceted nature, covering the links between strategic and operational levels of management, achieved and future results, as well as between internal and external aspects of the enterprise [4].

In general, the performance management system reflects the combination of control subsystems with regulatory mechanisms at all levels of the organization (enterprise) management; works to improve the balance between plans and results, constantly determining the direction of movement, flexibility and development of the organization. The issue of improving the efficiency of the organization (enterprise) is one of the defining problems of further development in the functioning of market relations, when the results of some market participants depend on the clarity and coherence of others.

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SHOPPING TOURISM

Shopping tourism is a type of tourism, the main purpose of which is to make purchases during a tourist trip.

Many tourists update their wardrobe abroad, and the most active of them go not just to travel, but to shopping tours. Most tours are organized to industrial and commercial regions of countries such as Turkey, Italy, France and Greece. Their cheapness is quite understandable: part of the costs are borne by shopping centers (factories, warehouses), interested in the influx of buyers.

There are shopping tours with obligations and without them. In the first case, a person gives a receipt that you will spend a certain sum on purchases, this promise is often asked to support a cash deposit in the amount of the full cost of the tour - in case you for some reason do not make the cost. Non-commitment tours are usually a bit more expensive, but no one controls the amount of money a person leaves in malls [2].

The price of the tour usually includes: flight, transfers, insurance and accommodation in a cheap hotel, trips to shopping malls, warehouses and factories accompanied by a guide who helps to make purchases. If there are a large number of shoppers, travel agencies send them on charter flights.

Shop tours differ in the distance: inner and abroad. Inner mainly are to Turkey and Poland, less often the Czech Republic. Under the far China, as well as most capitals of European countries - London, Paris, Berlin, Rome, Milan, etc.

The most profitable purchases are those made in duty-free stores located in the Middle and Far East. Especially popular is the Dubai store, which attracts tourists from all over the world for shopping. They buy goods in large quantities so that it is sometimes difficult to buy duty-free goods before day flights. Passengers of night flights have nothing to worry about - at the airport in Dubai duty-free works around the clock, and before departure you can safely go shopping.

European duty-free shops are considered quite expensive. Among them, the largest and most authoritative is located at Heathrow Airport. From year to year, London's duty-free, despite the relative high cost, leads the independent ratings, compiled on the basis of sales. The most unusual duty-free store is in Egypt. In this Muslim country, the trade in alcohol is prohibited, but for foreign tourists made an exception, however, if a citizen crossing the border bought something alcohol, then in his passport is a special mark, and "coincide" will not work [3].

In European countries there are whole trading villages or outlet villages. It sells a variety of quality goods, from studs to chic dresses. Prices in shopping villages are lower than in shops, sometimes up to 70%. "Trading villages" are very popular both among Europeans and shopping tourists for the quality of goods, a wide range and unprecedented discounts.

In Italy, France, Great Britain, Germany and other countries there are regular sales, in fact, during the sales at low prices are sold not only clothes, shoes, but also other groups of goods, which leads to high demand from consumers. In some European countries (for example, in Italy, France) the period of sales is strictly regulated by law, legislators require discounts and promotions on a certain day [1].

For those tourists who cannot imagine traveling around the world without shopping, Tripadvisor has selected ten cities around the world that are ideal for this purpose. The rating of the world's largest online tourist information service is based on the reviews of real travelers, the list includes:

1. Las Vegas, USA.
2. Paris, France.
3. New York, USA.
4. Milan, Italy.
5. Miami, FORCE.
6. Beverly Hills, FORCE.
7. Dallas, USA.
8. London, Great Britain.
9. Barcelona, Spain.
10. Tokyo, Japan [2].

Shop tourists bring a significant increase in the budget of these countries. Thus, in Turkey, "shuttles" annually purchase goods worth 8-10 billion dollars. The government of the country fully supports shop tourism. The adviser to the Turkish Minister of Tourism on press relations said that tourists who bought low-quality goods, have the right within 15 days to demand its exchange, refund or gratuitous elimination of defects. In the case of purchase of goods with a hidden defect, the consumer has the right to make a claim to the seller within two years [3].

Having studied this topic, we can conclude that shopping tourism is really a very promising and popular branch of tourism, because in modern society there is an interest in unusual types of tourism.

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EXOTIC TOURISM

Holidays in exotic countries are considered to be an effective way to avoid everyday life. It is said that it helps to make a complete reset and experience the joy of life. Unusual weather conditions, a different way of life, bright colors of the jungle, new sounds and smells, unfamiliar and unusual cuisine, interesting architecture and cultural heritage of exotic countries - these are the main components of a fascinating and amazing holiday.

Exoticism is defined as number of characteristics of some countries with a differences in climate, culture and are unique to our own characteristics. Therefore exotic travel involves destinations rather distant in terms of both space and cultural standards [1].

A particular feature of exotic tourism is long duration, more than 11 days. It is also organized in a way so tourist could see all the places worth seeing in the target region. It involves changes of accomodation almost every day, taking into account the maximum number of places worth visiting in the destination countries which are often far apart. Participants are aware of coming to areas of another culture, a different climate and time zone, and with distinct ways of communication and behaviour. On the one hand, it is exciting for those hungry for new experiences and adventures, but some tourists are exposed through this to stressful situations [1].

There can be defined several types of exotic tourism. One of them is *adventure travel*. This type includes visits to exotic places like volcanoes, islands, waterfalls, etc. Of course, this is a non-standard tour of exotic and environmentally friendly nature reserves, associated with unusual travel, non-traditional vehicles. In some cases, such a tour involves risk and serious physical activity, which requires courage and skill. Also there are *nature safari, hunting, fishing, photo hunting, motorcycle trips* in winter or jeeps in highly accessible areas [3].

Tours to prominent places, earthquakes, floods, volcano eruptions, technogenic disasters on sinking vessels. For example, a review of the Chernobyl nuclear power plant from a helicopter.

In the summer of 1998, the research vessel Academic Keldysh, equipped with deep-sea submarines, took a group of enthusiasts to the Atlantic and organized descents to the bottom of the site of the death of the legendary "Titanic". The tours are known for a review of the sunken passenger liner "Andrea Dorea" and others. If there is no sunken ship near the tourist center, it will be sunk for tourists[3].

Searches for treasures. There are professional expeditions in search of treasures and treasures and amateur - adventure, entertainment, to provide the opportunity to wash the golden sand in the waste gold mining, the search for precious stones. On the islands of the Indian Ocean, tourists are offered a shovel and a map with the approximate location of the buried fairy-tale box - this type of activity is included in the list of island entertainment for tourists.

Cruises to the Arctic and Antarctica. Relatively recently, cruises to the Arctic and Antarctic have begun. More and more people want to visit extreme conditions and look at exotic animals such as penguins. In addition, the North and South Poles are the cleanest places on Earth.

Space tourism. It is the most expensive and perhaps the most exotic type of extreme tourism - a trip to Earth's orbit.

Exotic tourism has no special differences, except for the characteristics of the actual destination (country, region) to visit, which due to a number of characteristics of the attributes of the actual natural, racial, cultural can be attributed to the exotic. The very concept of "exotic" - is very subjective and depends on individual characteristics (on the general level of knowledge and intelligence of the tourist, the region and the environment of his residence, his religion and beliefs) [2].

Exotic tourism is first of all a spectacle, unique in its features, in the general case that generates positive emotions. Exotics cannot be permanent for the traveler and is typical for short-term visits to exotic destinations, because permanent residence or long stay in it already creates a habit and the exotic loses its mysterious unknown charm.

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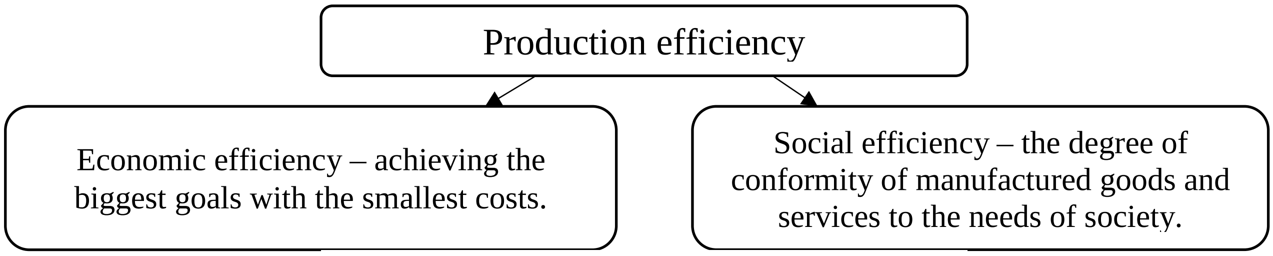
MANAGEMENT PRODUCTION EFFICIENCY AT THE ENTERPRISE

Nowadays any enterprise must be able to compete at changeable conditions, remain in a favourable position in the market. They need to be flexible and adaptive to external environment. The main task of each competitive company is to fulfil consumers' needs and market demand as well as make a profit. Therefore, we need to pay attention to management production efficiency at the enterprise for improving the market position and the general condition of the enterprise.

Production efficiency is called such a category in the system of indicators, which characterizes the efficiency of production, i.e. its return on investment and resources.

In this way we can monitor economic increase. Nowadays, it is the most important productivity indicator. So, there are economic and social efficiency at the enterprise. Pic.1 [3]



Pic. 1 Types of enterprising efficiency

While managing production efficiency, it is necessary to consider important factors influencing it, which can help us to understand the scope and determine which part of production requires detailed review. (tab. 1) [2, c.176]

Table 1

Factors influencing production efficiency

Factor	Scope of influence and application
Main	Sphere of production
Special	Risk and indefinite future
Specific	Methods of management and professionalism of employees
Intensive	Increasing of productivity, decreasing of resource capacity
Extensive	Increasing of production volumes
Territorial	Location and market potential
Industrial	Scope of activity and characteristics of industry
Organizational	Organizational structures of departments

In order to determine which factors have the greatest impact, it is necessary to identify several issues, such as in what industry our company operates, in what environment, who our competitors and consumers are, what product the company produces. There are some main indicators of efficiency: [3]

1) **productivity;**
2) **labor intensity;**
3) **capital intensity;**
4) **material intensity;**
5) **ecological efficiency.**

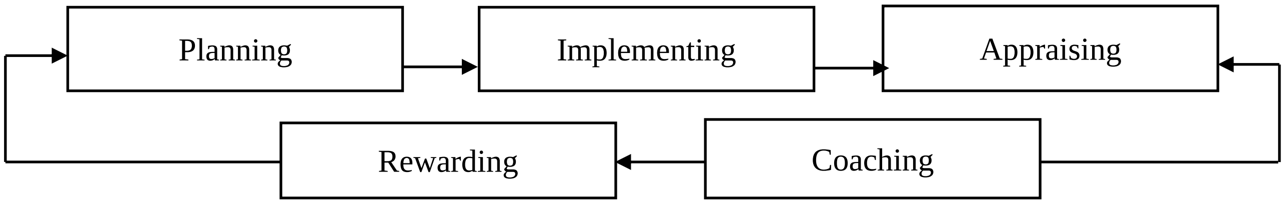
Production efficiency is determined by the ratio of production results and costs of this production. This indicator summarizes all the above indicators and summarizes the overall activities of the enterprise.

Now, we can determine manager's tasks for effective management of productive functions: [1, c. 106]

- setting strategy of enterprise development;
- using modern innovative technologies;
- improving corporate culture and informing employees about the importance of their work and belonging to the production process;
- goal setting;

- efficiency control;
- providing feedback with all communication channels;
- revision of tasks on production efficiency and their adjustment.

The management process of efficiency can be generalized into 5 main processes (pic.2) [1, c.107]



Pic. 2 Main processes of management production efficiency at the enterprise

Conclusion: Management production efficiency at the enterprise depends on the manager and their ability to properly analyze the state of the enterprise and determine the main production strategy, to carry out effective management with modern innovative technologies, management techniques and analysis of key indicators to respond to their deviations.

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SOCIO-ECONOMIC SITUATION OF KHMELNYTSK REGION IN 2020

The aim of this study was to investigate the socio-economic situation of Khmelnitsky region in 2020 and to conduct a comparative analysis of these indicators with last year.

In order to enter the trajectory of sustainable economic development, to build an open democratic society with a European standard of living, it is necessary to accumulate creative, intellectual forces today. There is a need to create a qualitatively new socio-psychological climate that would promote socio-economic innovations and greater human self-realization in our country [2, p.17].

Population

The current population in the region, according to estimates, as of December 1, 2020 was 1245167 people.

Between January and November 2020 the population decreased by 9535 people. The decrease in the population of the region was due to a natural decrease - 9720 people, at the same time recorded a migration increase of population - 185 people.

The number of births from January to November 2020 was 8950 people, deaths - 18670 people.

Incomes of the population

Between January and December 2020 the average salary of full-time employees of enterprises, institutions, organizations (with 10 or more employees) was UAH 9,872, which is 2 times more than the minimum wage (UAH 5,000) and 13.8% more compared to the corresponding period of 2019.

The types of economic activity with the highest level of wages included enterprises of financial and insurance activities, and among industrial activities - enterprises for the supply of electricity, gas, steam and air conditioning, where wages exceeded the regional average of 1.5 and 2.1 times respectively. The lowest level of wages was observed in enterprises for temporary accommodation and organization of food and textile production, production of clothing, leather, leather goods and other materials (respectively 31.2% and 53.7% of the average level in the region).

Real wage index during the period from January to December 2020 compared to the corresponding period of 2019. was 110.1%.

The total amount of arrears of wages on January 1, 2021 amounted to UAH 12 million (14.9% less than on December 1, 2020), or 0.5% of the payroll accrued in December 2020, while 51.7% of the total debt was formed at economically active enterprises, 43.3% - at enterprises to which the procedure of restoring the debtor's solvency or declaring it bankrupt, 5.0% - at economically inactive enterprises.

Consumer prices

The consumer price index in 2020 was 104.9%

Prices for food and non-alcoholic beverages increased by 5.5%. Prices for sugar (by 41.8%), buckwheat (by 30.6%), and eggs (by 24.7%) increased the most. Barley groats, sunflower oil, wheat flour, semolina, fruits rose in the range of 20.8–12.4%, and bread, cheeses, soft drinks, margarine, beef, fish and food products rose by 7.8% and fish, milk, flour and sugar confectionery, pasta, sour cream, lard, butter by 1.8%. At the same time, prices decreased for millet (by 22.6%), vegetables (by 9.4%), and poultry meat (by 5.6%). Clothing and footwear fell in price by 5.2%: clothing - by 6.2%, footwear - by 4.5%.

Alcoholic beverages and tobacco products added 7.9% to the price due to a 21.0% rise in the price of tobacco products, while prices for alcoholic beverages decreased by 2.8%.

The increase in prices for housing, water, electricity, gas and other fuels by 19.6% was due to an increase in tariffs for natural gas (1.6 times) and sewerage (by 21.5%). At the same time, the fee for water supply increased by 16.4%, rent - by 7.1%, its maintenance and repair - by 3.7%.

In the healthcare sector, prices increased by 7.6% due to the rise in prices of pharmaceutical products by 9.1%, as well as outpatient services - by 6.4% (including consultative - by 17.8%, diagnostic - by 8.3%), hospital services - by 2.1%.

Prices for transport as a whole increased by 1.5%, in particular, vehicles rose by 11.8%, transport services - by 1.2%. At the same time, fuels and lubricants became cheaper by 10.7%.

The increase in prices in the field of communications by 6.4% was influenced by the increase in tariffs for local telephone services, postal services, Internet services, mobile communications (by 17.0-6.4%).

Education services increased by 12.1%, namely: tuition fees in higher education institutions increased by 13.6%, secondary schools - by 8.4%, for the maintenance of children in preschool institutions - by 10.4%.

Among other goods and services, prices for financial services, goods and services for personal care, meals outside the home, and personal transport insurance increased by 19.9–3.4%. At the same time, prices in recreation and culture decreased by 4.0%, in particular, for audio equipment, cameras and information processing equipment - by 18.0%.

Industry

Index of industrial production in 2020 compared to 2019 was 97.5%.

In the mining industry and quarrying production compared to 2019 increased 1.6 times.

In 2020 608.2 thousand tons of limestone, limestone flux was mined for the production of lime and cement. 225 thousand tons of other crushed stone was produced, which is used as a concrete filler, for paving and similar purposes.

In the processing industry in 2020. industrial production decreased by 10.9%, including the manufacture of chemicals and chemical products - by 30.8%, food, beverages and tobacco - by 18.4%, mechanical engineering - by 15.7%, textiles, clothing, leather, leather products and other materials - by 10.5%, metallurgical production, production of finished metal products, except machinery and equipment -

by 7.9%, production of rubber and plastic products, other non-metallic mineral products - by 4.5%. At the same time, the output of wood products, paper production and printing increased by 27.9%.

In the supply of electricity, gas, steam and air conditioning in 2020 production index compared to 2019 was 116.8%. In 2020 11321.4 million kWh of electricity were generated, which is 3495.3 million kWh (44.7%) more than in 2019.

Agriculture

Index of agricultural products compared to 2019 was 95.2%, including enterprises - 92.0%, households - 103.4%.

Crop production index compared to 2019 was 94.8%, including enterprises - 92.0%, households - 104.6%.

The index of livestock products was 97.0%, including 91.8% at enterprises and 101.1% in households.

In 2020 farms of all categories sold 90.7 thousand tons of livestock and poultry for slaughter (live weight), which is 9.2% less than in 2019, produced 651.5 thousand tons of milk (2.5% more) and 973.0 million eggs (5.3% less).

Construction

In 2020 enterprises of the region produced construction products in the amount of UAH 6,472.1 million. Index of construction products compared to 2019 was 158.3%.

In 2020 compared to 2019 the construction of civil engineering works increased 2.4 times and residential buildings - by 0.1%. Along with this, the construction of buildings decreased by 16.3%, incl. non-residential - by 23.2%.

New construction accounted for 18.8% of total construction output, repairs (capital and current) - 67.3%, reconstruction and technical re-equipment - 13.9%.

Foreign trade in goods

Between January and November 2020 exports and imports of goods amounted to 578.3 million dollars and 452.1 million dollars. Foreign trade operations were conducted with partners from 129 countries.

The volume of exports of goods to the European Union decreased compared to January-November 2019 by 0.6% and amounted to 292.9 million dollars, or 50.6% of total exports. The most important exports of goods among EU member states were made to Poland, Germany, the Netherlands, and Belgium. Among other countries, most goods were exported to China, Egypt, Turkey, and Belarus.

Imports of goods from the European Union decreased compared to January-November 2019 by 7.3% and amounted to 241.3 million dollars, or 53.4% of the total. Among the EU countries, the most important imports of goods came from Germany, Poland and Italy. Among other countries, the largest imports of goods came from China, Turkey, the Russian Federation, Belarus, Saudi Arabia, and the United States.

Domestic trade

Retail trade turnover, which includes data on retail trade turnover of enterprises whose main economic activity is retail trade, in 2020 amounted to UAH 28,168.8 million, which in comparable prices is 13.2% more than the previous year. Retail turnover of enterprises (legal entities) in 2020 amounted to UAH 16,146.3 million, which in comparable prices is 13.4% more than in 2019.

Transport

According to preliminary data in 2020. cargo turnover of transport enterprises of the region amounted to 1095.9 million km, which is 31.5% less than the previous year. 6241.3 thousand tons of cargo were transported, which is 23.6% less than in 2019.

Road and trolleybus transport performed passenger turnover in the amount of 590.2 million passenger-km, or 60.8% of the volume in 2019.

65.5 million passengers used passenger transport services, which is 35.6% less than in 2019.

37 million passengers were transported by road, which is 38.1% less than in 2019. 28.5 million passengers were transported by city electric transport (32.0% less) [1].

Conclusion

Taking into account the facts given above, we can note the improvement of the main indicators of socio-economic development of Khmelnytsky region compared to similar indicators last year.

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MARKETING MANAGEMENT AS THE LATEST TOOL OF ORGANIZATION ACTIVITIES

Effective business development requires the use of marketing tools. To use these tools in the right direction you need to understand the concept of marketing management. The formation of such process as marketing management in the organization took place within the development of the marketing concept which is currently undergoing structural changes. Marketing has become more diverse. The companies that work together use marketing in many functional areas.

One of the driving forces of the organization development is its innovative activity. New approaches to business management such as marketing management have emerged under the influence of external changes in science, economics, competitive environment as well as the internal desire of the organization to grow, increase sales and profit [3, p. 300].

In the process of defining the concept of marketing management, the scientists often interpret this concept as a method of managing the entire organization on a marketing basis. In this sense, marketing is management philosophy where existing divisions of the company perform their functions based on the principles of marketing. At the same time, marketing and management do not contradict each other. The organization uses marketing and management comprehensively [1, p. 11].

One of the main goals of marketing management in the organization is to determine the market efficiency, to reveal the essence of how well the needs of people are met and how the company services can be useful for customers [4, p. 463].

In addition, it is very important to consolidate the position in the desired market segment creating various benefits for consumers, competitiveness through the ability to give consumers services that no one else can give [2, p. 70].

As an approach to managing an organization, marketing management encourages managers to work primarily to meet consumer needs because it guarantees the organization profit [5, p. 7].

Thus, the marketing approach to management is considered to be the way to improve the organization relying on the principles of marketing in conjunction with management. Strategic use of various functions of marketing and management helps to systematize and specify the activities of marketing substructures in the organization promising long-term existence of the organization in changing environment.

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STATE TARGET PROGRAMMES

State target programme is a core instrument of state policy, aimed atsocial and economic development[3].

The right combination of financial and human resources, scientific knowledge and effective management decisions make the s*tate target programme a powerful tool of the*innovative investment for the countrydevelopment[2].

State target programmesmean interrelated tasks and targets of social, economic, scientific and technologicalactivities, towards a final result, considering involvement of all factors necessary for pursuing the goal[5].

State target programme are subdivided into:

- *state wide programme* of economic, scientific, social*, national cultural development and environmental protection;*
- *programmes* specifically focused on economic and community development[12].

Today, about 533 *state target programmes* are being implemented in Ukraine. Many new *programmes are developed by l*ocal authorities and government [10].

The number of approved *state target programmes is being in creased greatly every year*. Special-programme method for budget planning has*its wide application* [6].

Such programmes like "Warm credit" and "Energyhouse" directed on support of energy conservation operate in Ukraine. The programes provide reimbursement from the state budget for individuals and legal entities. PrivatBank, Oschadbank, Ukrgasbank and Ukreximbankare authorized to issue "warm credit".

A large number of *target programmes were developed for* agricultural sector [4].

Also, there are *state housing programmes, including "Affordable homes"*, "Credit facilities for young people" and "Credit of the capital stock".

The government provides irrevocable financial support in the form of payment 30or 50 per cent from the constructionvalue or purchase of *affordable houses for programme participants*[1].

The programme "Credit facilities for young people" gives an opportunity to take a credit for purchasing of relevant *houses by such categories of people as young family, young scientist, family with many children, masters of sports, family that* have a child with disabilities; single mothers or a single young person[9].

The s*tate programme «An available credit 5-7-9%" is gaining its popularity. It started February 1, 2020. Small* entrepreneurs *have opportunity to borrow money at low rates of interestfor organizing or development of their own business. Banks that take part in the programme are* PrivatBank, Oschadbank, Ukrgasbank and Ukreximbank[7].

The Cabinet of Ministers will present programme "New money" in 2021. To approve this programme some amends to the law are to be done. The programme is funding micro- and *small* entrepreneurs [11].

Considering the state target programmes, one *should note that there is no proper control over the implementation of such programmes* and active work on finding non-budgetary sources of funding is not provided. *Today. state target programme is important support for* entrepreneurs [8].

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THEORETICAL PRINCIPLES OF BANKING MARKETING IN UKRAINE

The relevance of marketing in the banking sector of Ukraine is of exceptional importance during the development of financial and monetary markets. Reform in the banking sector is ahead of transformation in other sectors of the economy. Qualitative changes have taken place in the work of banks. Increased competition between depository institutions, the emergence of competitors in the form of non-banking institutions (insurance, trust companies and pension funds), the outflow of deposits from banks due to the development of the securities market have led to the need for banks to use marketing tools. [1, p. 9]

Currently, many domestic scientists are conducting serious marketing research in the banking sector. These are Denisova E.S, Alekseev I.V, Ivanova S.P, Romanenko L.F, Lyutyi I.O, Hristoforova O., Zaitsev O., Kraevaya A., Krylov A.M, Bakhanova V., Vovk V. and many others. The problem is that the Western school is ahead in this area of science. The banking system there is formed and operates in market conditions for a long time and compared to the Ukrainian school of marketing has undeniable advantages. Much attention is paid to marketing research directly in banks, in production, because it is a factor of profitability. Marketing is an applied science. Therefore, unfortunately, most of the scientific achievements in this area are a trade secret. And a significant number of scientists are, at the same time, consultants in the marketing departments of banks and teachers at universities. For example, Neal Reynolds, according to the website, has worked with hundreds of banks and credit unions to help them increase deposits and market share without increasing their marketing budgets.

For other authors from countries where market relations are not yet high, information from foreign sources is the basis for their own research and new ideas.

Banking can be defined as the process of creating a loan and the implementation of transaction services and exchange transactions. Thus, the bank is a producer of specific goods and services [2]. Marketing, on the other hand, is a set of measures to study all the factors influencing the process of creating and selling a product [3]. It is necessary to realize that marketing can have an external (market, customers) and internal (staff, product development, production) orientation [4]. Thus, banking marketing is an organizational and managerial strategy of finding ways to meet the needs of the bank's clientele and the bank itself by creating a system of effective management of money, loans, interest, currencies, payments, taking into account the marketing environment and current market conditions. [1. P. 9]

Judging by the above definitions, we can conclude that the tools of banking marketing exist to ensure the implementation of marketing policy and contribute to the achievement of its main goals in the market. The goals of marketing policy must be fully consistent with the overall corporate goals and strategies of the bank.

The main purpose of the bank, as well as any commercial structure in market conditions is to make a profit. Operating in a competitive environment, banks must constantly work on the efficiency of their business. Banks, like any business entity, produce and market their specific products. Banking "production", like any other, is based on two things: suppliers of resources and consumers of the product. The final result of banks depends on both external and internal factors - the state of macroeconomics and the correctness of their own organization. Thus, marketing in banks is based on knowledge of the market of resources and the market of consumers of the banking product, analysis of macro- and micro processes in the economy. The bank's marketing activities are aimed at successful positioning of the bank in the market. Since the final stage of the production cycle of a banking product is its implementation, the efforts of the bank's marketers are aimed primarily at improving the efficiency of this process. Therefore, the main attention should be paid to consumers of banking products - individuals and legal entities.

Therefore, improving the efficiency of banking institutions, improving the economic performance of the bank, which create a competitive advantage, must be ensured through the implementation of banking marketing. On the other hand, market reforms in Ukraine are impossible without improving the efficiency of banking. An important role in the implementation of this task is played by the use of techniques and methods of banking marketing.

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ASSESING IDICATORS FOR THE TAX BURDEN OF THE ENTERPRISE

Ukraine is experiencing a difficult historical period formatting new socio-economic relations in the context of hostilities and political contradictions. And the transition to new forms of government takes place in a budget deficit and inconsistencies in the regulatory framework governing economic relations[1]. The problem of assessing the level of the tax burden on enterprises is quite complex and not fully understood. Foreign and domestic scholars, such as D. Dropa, V. Kornus, E. Kirova, M. Lytvyn, P. Melnyk, A. Sokolovska, and others, pay attention to the theoretical bases of assessing the level of the tax burden on enterprises. The methods, which are proposed by them, do not have a single approach to calculating and determining the level of the tax burden. The purpose of creating a single methodology for assessing the tax burden is to compare the tax burden on enterprises in different sectors of the national economy[2]. Nowadays, there are existing many approaches for determining the tax burden of an economic entity. At the enterprise level, general and partial indicators of the level of tax burden are calculated, which are systematized and summarized in Table1[3]. The most important issue of the tax burden is the quantity assessing, excess level determination, as well as the effects of the distribution between factors of production and consumption. [4] The comparative cross-sectoral analysis in some countries uses specific tax indicators: tax wedge — a ratio calculated as the ratio of personal income tax and social security contributions of both employer and employee to total labor costs (labor); the marginal rate of personal income tax, which is applied to the highest limit of income per person, the nominal corporate income tax rate applicable to most companies, the average effective corporate income tax rate as a measure of the level of the corporate tax burden[5] [6].

Table 1.

The main indicators of the assessment of the tax burden on the enterprise

Indicator	*The procedure for calculating the indicator*	*The content of the indicator*
The total effective tax rate (ETR)	ETR=Tcsp./Tb	Indicates the ratio of total tax deductions (Tcsp) to the tax base (Tb)
Coefficient of tax capacity of sold products (CSP)	CSP=Tcsp ./PS	Specifies the proportion of total tax payments (Tcsp) the company makes to the budget of the proceeds from the sale (PS)
Income tax return (ITR)	ITR=Tcsp ./I	Determines the share of total tax payments (Tcsp)made by

		the company in income(I)
Tax expense (TE)	TE=Tcsp ./C	Defines the value the total amount of tax payments (Tcsp)and expenditures (C)
Tax return profit (TRP)	TRP=Tcsp ./P	Indicates how many times the amount of taxes(Tcsp) paid exceeds the company's profit (P)
Tax Return on Assets (TRA)	TRA=Tcsp ./A	Specifies the ratio of the total amount of taxes paid(Tcsp) to the value of assets (A)
Income per 1 hryvnia taxes paid by the enterprise (PE)	PE=P ./Tcsp	The indicator is the inverse of the income tax rate, shows the ratio of net profit (P)to the total amount of taxes paid by the enterprise(Tcsp)
Factor income tax (FIT)	FIT= ITR /I	indicates the ratio of the relevant type of tax to the tax base
Tax cost ratio (TCR)	TCR=TE/ C	
Ratio Profit Tax (RPT)	RPT=TRP/I	

Source: systematized by the author

As follows, to assess the tax burden using a number of specific indicators calculated for the analysis of the impact of tax payments on the financial condition of the economic entity and across the country shows the effect on revenue growth in the state.

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PROBLEMS OF INVESTMENT ACTIVITY DEVELOPMENT FACED BY COMMERCIAL BANKS ON THE SECURITIES MARKET

The objective of investment activities of commercial banks on the securities market is not only to achieve the planned result for the bank, but also to create a positive effect for the whole economy, by providing long-term investment and innovation resources of economic entities.

The main problems of development of banking investment activity:

1. threatening level of investment risks;
2. low level of capitalization of banks and the securities market;
3. the presence of territorial disproportion in the development of the banking system;
4. low share of securities in the total assets of the bank;

The activity of banks in the stock market of Ukraine is associated with a number of problems caused by the imperfection of the stock market of the country and insufficient legal regulation of the financial sector of the state. Banking institutions, conducting a significant amount of investment operations, are very cautious about their investment policy-making in view of the high level of risk. For this reason they create a portfolio of securities carefully. To form a bank's securities portfolio, above all the ratio of such basic characteristics of the security as profitability and level of risk are to be analysed. [2]

Securities risk is not homogeneous in its content. In the process of purchasing and storing securities the investor is exposed to a set of major risks, namely:

1. the level of liquidity of securities;
2. risk of early withdrawal of securities;
3. inflation risk;

4. interest, credit and business risk;
5. risk associated with the length of the securities circulation.

In order to effectively manage risks, banking institutions first need to know which risks their activities are most associated with. An objective assessment of all major risks reveals which types of risks can be minimized as much as possible. As a rule, each bank forms and implements its own investment risk management policy, which includes the following measures:

- assessment of the completeness and accuracy of the information required for determining the level of risk;
- selection and use of appropriate methods for assessing the probability of occurrence of a risk situation;
- determining the amount of possible losses from the occurrence of a risky situation;
- analysis of factors influencing investment risk;
- the choice of means to eliminate the negative consequences of possible losses.[1]

Despite the intensification of banks 'activities in the stock market and the growth of the banking system, part of banks' investments in securities is still a rather insignificant component of bank assets. Cautious attitude to securities activities is a relevant reaction of banks to the insufficient level of stock market development, weak legal support of securities transactions and the economic situation in general. Among other things the imperfection of existing methods of decision-making by commercial banks on investment in securities. At the same time, many banks do not have an adequate effective risk management system which means a threat of untimely adequate response. Therefore, to improve the investment performance of banks it is important to establish methods for assessing the attractiveness of securities, as well as to avoid or reduce the impact of risks.

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TRENDS IN SOLVING OF ENVIRONMENTAL PROBLEMS IN UKRAINE BY CREATING ENVIRONMENTAL STARTUP

The aim of this study was to investigate the trends in solving environmental problems in Ukraine by creating environmental startups, in particular through the creation of the author's project "Papercraft Models", safe for the environment.

Solving environmental problems is a strategic task of our country's economy. Evidence of this is the development of environmental issues in the economy at the state level and increasing scientific interest in this problem.

Thus, the Law of Ukraine "On the Basic Principles (Strategy) of the State Environmental Policy of Ukraine for the period up to 2030" (January 2020) presents the strategic goals and stages of implementation of the state environmental policy of Ukraine. Among the goals are the following:

1) formation in society of ecological values and principles of sustainable consumption and production;
2) ensuring sustainable development of natural resource potential;
3) ensuring the integration of environmental policy in the decision-making process regarding the socio-economic development of Ukraine;
4) reduction of environmental risks in order to minimize their impact on ecosystems, socio-economic development and public health;
5) improvement of the state system of environmental management [2].

Many scientists are working on the problem of implementing environmental projects. Also, these issues are actively discussed in the media, environmental projects are promoted. One of them is the annual project "ECOTRANSFORMATION-2019". This environmental platform is aimed at promoting positive change, the best green initiatives and projects implemented by enterprises that reduce the negative impact on the environment. Its slogan is "Changing by changing", because it is a project about those who change approaches and technologies, who, by transforming their production facilities, set an example to others who have set out on a green path and lead others [3].

According to T. Nesteruk, ecological education of the younger generation of Ukraine occupies an important place in the educational process. The development and formation of key competencies in children and students in the New Ukrainian School is ensured by an interdisciplinary approach to the formation of environmental culture, the use of theoretical and practical forms of studying environmental issues in general secondary and extracurricular education; the relationship of national and local disclosure of environmental problems in the educational process [4].

N.O. Gavadzin considers aspects of environmental project management and states that it is important to study the aspects of environmental project management to increase the effectiveness of environmental activities. The main principles of this issue, he determines the priority, purposefulness, safety, system, complexity, ensuring the most effective use [1].

I.S. Skorokhod and N.I. Lipovska-Makovetska consider the peculiarities of the implementation of innovation and investment projects in the environmental sphere and characterize the main innovation and investment projects funded by the European Union. Researchers outline the reasons that hinder the implementation of innovation and investment projects in the environmental sphere, as well as identify areas for intensification of the implementation of environmental projects in Ukraine. In addition, scientists prove the need to form a system of environmental expertise of innovative projects [6].

We agree with Z. Pavlenko that with a good reputation for nature management business can benefit from long-term and trusting relationships with partners, customers, local people and regulatory authorities. In our opinion, this will be the main trend of modern economic production. And this is what the development of our project is aimed at [5].

Every year, environmental projects, more precisely the so-called environmental launches, become more widespread and provide support from society and potential investors. Considering these modern perspective forms of interaction of economic and ecological sciences as expedient more detailed reviews.

Environmental startups are environmental projects that enable the implementation of environmental ideas in business.

Modern young people focus not only on the implementation of their own ideas, but also on the benefits that can be obtained, primarily, material benefits. Therefore, in most cases, ideas of an ecological nature grow into startups [7].

However, it should be noted that if we talk about environmental startups, they are somewhat different from the usual, because, above all, carry a socially oriented idea of overcoming environmental problems, which is above the financial benefits (profits are more a consequence, if the project is successful, than the end in itself). Therefore, we consider it necessary to note that the basis of the emergence of environmental startups and environmental projects is the conscious attitude of the authors of the project to the protection and preservation of the environment.

In our opinion, *a startup* is an innovative activity of an economic entity aimed at improving life and obtaining possible expected profits in the future. *An environmental startup* is an innovative activity of an economic entity in the field of ecology, which involves improving the state of nature and making a profit.

We consider it necessary to give a definition of the main concepts that were first introduced into scientific circulation in this study. It should be noted that the terms "paper models", "craft models", etc. were previously used to denote cardboard figures. While the term *"PaperCraft-Models"* for the first time we have given several definitions and considered it in a narrow and broad sense. So, *"PaperCraft-Models"* is:

1) low-polygonal 3D models for decoration;

2) ecological product;

3) figures from a special strong cardboard of any color.

We would like to note that in Ukraine this is a new product, which is not yet very popular. The information taken from serpstat.com provides the following information:

1) in the narrow sense, "Papercraft Models" is a polygonal 3D model that can be assembled for different user needs;

2) in a broad sense, the term "Papercraft Models" can be identified with origami. The definition of this term includes origami in general, namely: origami for children, origami made of paper and so on.

We present a project that, in our opinion, benefits both the economy and the environment. We produce 3D models with low polygonality, which we call PaperCraft-Models – paper models. They can be used for home decoration or any event, unusual gift, hobby for a child. In essence, a way has been invented to reduce the negative impact on the environment.

In our opinion, PaperCraft models can decorate any event. These are low-poly, environmentally friendly 3D models that are suitable for decoration, a great gift and can be a hobby. Our products can add a pleasant atmosphere and style to any party, add zest to your home decor and make your photo unforgettable.

PaperCraft-Models are made primarily in that it is an environmentally friendly handmade product. It is creative, unusual and, most importantly, it is the fastest solution for your decor. It also makes a contribution to solving modern environmental problems. According to information taken from serpstat.com, there are 3.5 million gift searches every month. It was found that most of our customers are men and women aged 16 to 40 with good taste. Wherever we go, decoration is used everywhere, from the house to the work interior. Therefore, it is very important to live in this ecological environment creatively and with the opportunity to organize it at a lower price. This project, in our opinion, is very promising.

Our customers have a great opportunity to find an unusual gift on our Instagram page [9]. The layout of the figures can be sent electronically to the customer's e-mail.

Note that currently the environmental situation in Ukraine needs help. Quite often we see problems with the disposal and recycling of garbage, toxic substances and materials. Air pollution is also a very important problem. We believe that people need to change course to reduce harmful emissions into the atmosphere. This startup will help people replace materials that are harmful to health and the environment, thereby reducing the negative and emissions to the atmosphere and the earth. Papercraft-Models decor is not only visually appealing, but also environmentally friendly.

In the future, it is planned to open a studio and sell models not only in Ukraine but also abroad.

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MARKETING RESEARCH OF THE TELECOMMUNICATION SERVICES

The term of marketing research has been discussed. Its importance and role in the system of marketing has been determined. The main directions of market research, the stages of marketing research process and research methods have been presented.

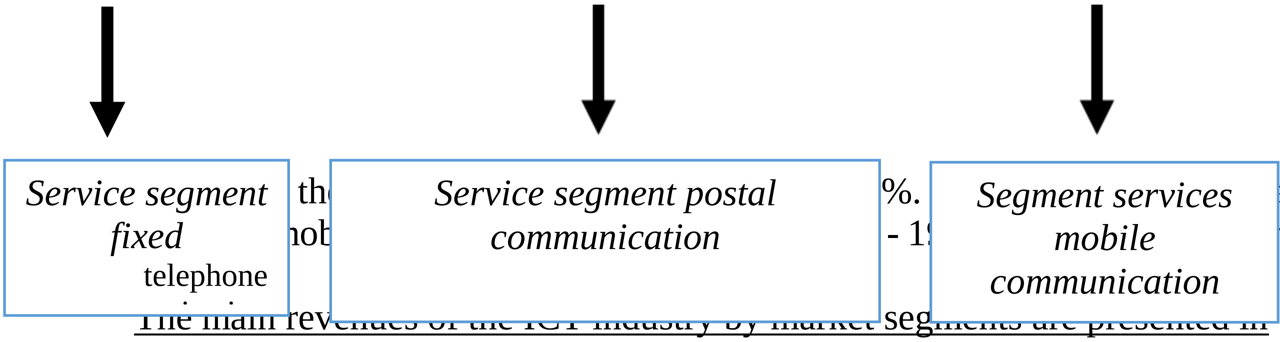
The aim of this research was to reveal the essence of marketing study, monitoring of the telecommunication marketplace in Ukraine. Marketing research is usually the first step in the marketing process, after ideas for products are conceived.

Before you start marketing research, you need to determine the state of the enterprise, to establish whether the development of the firm is possible while maintaining the financial policy, to evaluate scientifically technical potential.

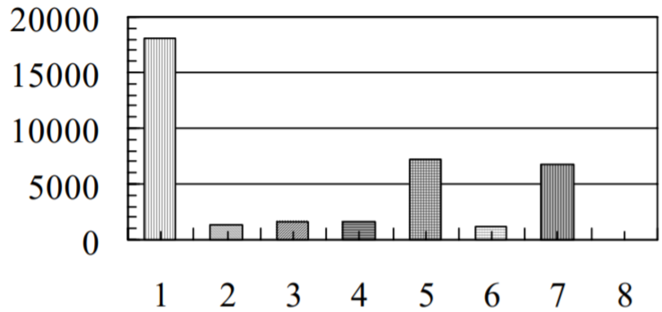
Increasing competition in the telecommunication market intensifies its research. For 2007 communication services were sold to consumers in the amount of UAH 40.0 billion, in particular to the population - in the amount of UAH 16.1 billion, which is 19.4% and 20.7% more than in 2006, respectively. In general, telecommunications provide more than 9% of GDP. If in 2003 the market share in total GDP was 4.9%, in 2004 - 6.1%, in 2005 - 6.5%, in 2006 - 6.4%, in 2007 - about 9% [7, p.367].

The segmentation of the telecommunication services market is shown in Fig. 1.

Telecommunication market services



The main revenues of the ICT industry by market segments are presented in Fig. 2.



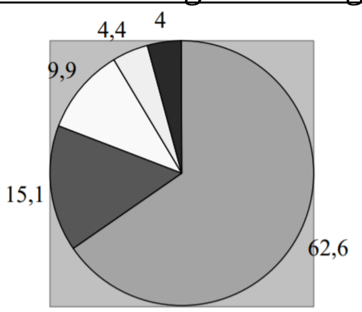
UAH million

1. Mobile communication
2. Postal service
3. IT services
4. TV and radio programs
5. Fixed connection
6. Computer communication
7. Implementation

In the field of informatization in 2008, business entities were provided with services on UAH 1.6 billion, of which UAH 140.4 million to the population, which is 26.1% more than in the previous year. The amount of communication services provided by operators of all forms of ownership is UAH 29 billion, of which UAH11.5 billion, consumption of communication services per capita in Ukraine increased by 19.8%. [3]

In general, the volume of communication services provided increased at the fastest pace: transmission and reception of television and radio programs, radio communication (29.2%), computer (27.4%), of which access to Internet (26.5%), mobile and local telephone (26.9% each). [6, p. 91].

The share of services communication is given in Fig. 3.



4 – Computer
4,4 - Postal
9,9 – Local telephone connection

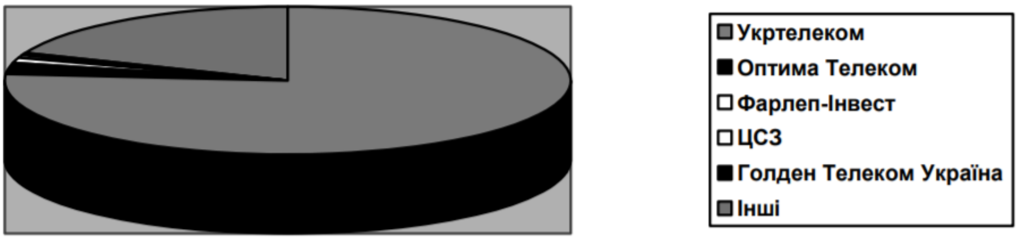
15,1 – Long-distance and international

62,6 - Mobile Communication

After 2000, there was a high rate of development of telecommunications and communications systems. They remain the most dynamic sector of the communications market and mobile communication networks, which now cover almost the entire territory of Ukraine.

In 2007, the share of mobile services in the total revenue of the sector telecommunications increased from 31.3 to 66.3%, while the share of fixed telephone services communication decreased from 59.6% to 25.7%. [2, p. 245]

<u>Dynamics of the share of fixed telephone and mobile communication in the total revenues of the telecommunications sector in 2003 - 2007,% is shown in Fig. 4.</u>



Back in 2004, this figure exceeded UAH 20 billion, and today this industry is one of the most promising in Ukraine. Leading operators' revenues are close 92%, the first 5 of which receive 88% of income (Table 1) [1, p. 145].

Доходи провідних операторів зв'язку

№	Оператори зв'язку	Доходи, млн. дол.
1	ВАТ «Укртелеком»	1500
2	МТС	380
3	Київстар	1035
4	Холдинг «Оптима»	158,4
5	«Голден Телеком»	73,8
6	Холдинг «Фарлеп»	59,1
7	«Астеліт», «ЦСЗУ»	56,3
8	«Велтон. Телеком »	49,7
9	«Воля-Кабель»	-
10	ЗАТ «Датагруп»	-

If we compare the growth dynamics of market components over the past year, we have the following.

Indexes:

- telecommunications market - 28%;
- industry - 6.2%;
- economic growth in general - 7%.

It should be understood that the main market shares in terms of profitability are occupied by three players: “Kyivstar”, “MTS-Ukraine”, “Ukrtelecom”. Each of them occupies approximately 25-30% of the market. Other players account for 10%.

<u>**The largest companies in the Ukrainian telecommunication market:**</u>

• UMC;
• Kyivstar;
• Optima;
• Golden Telecom;
• Farlep;

• Datagroup.

In most CIS countries, communication can develop at a faster pace, creating the conditions for accelerated economic and social development of the country. An international digital network has been created and long-distance communication, which meets the demand for these services [4, p. 115]. The length of digital channels long-distance and zonal primary networks is about 60% of the total length of the channels primary network.

CONCLUSION

In recent years, the telecommunication industry in Ukraine is showing some of the highest growth rates. It plays a huge role in balanced development of the global and regional economy, as it is a connecting link in industrial sphere, in the sphere of services and consumers, and various geographically dispersed parts of the country and economic centers. Stimulating human communication through communications, modern means of telecommunications are becoming a necessary condition for social cohesion and cultural development of all countries. This situation requires companies operating in the market to expand the range of services, ensure the constant availability of resources, impeccable service, which, in turn, allows you to be competitive in the market.

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HOW CAPITALISM AFFECTS INEQUALITY

Capitalism is the political and economic system in which a country's trade, investment, industry, and production are controlled by private individuals and for-profit corporations rather than by the state. The emergence and growth of capitalism in the 19th and 20th centuries have led it to become the globally dominant economic system. Capitalism has outperformed all competing systems such as socialism and communism.

The objective of my work is to identify the determinants of the increase of income inequality that rich countries experienced through capitalism.

The global shift towards capitalism due to its potential for higher profits, equality of opportunity, economic freedom, and the reduced role of the state has led to the major problem of rising economic inequality because some individuals and groups are abler than others to exploit and take advantage of what capitalism allows them to.

Every year, a new world-historical record in socio-economic inequality is proclaimed. In 2018, the 26 richest men owned as much wealth as the poorer half of the world population (almost four billion people) combined (The Guardian, 20 January 2019). Everybody knows this level of inequality is unsustainable, every capitalist state is worried about it, and many measures are taken against it – but it keeps getting worse. This is partly because we understand neither capitalism nor inequality. Moreover, we do not understand them partly because we believe in the ideology that has been created around capitalism since the development of its modern, Western form.

A capitalist is a human being that owns capital as a property before engaging in a capitalist action. Capital is not the result of capitalism but a precondition. Moreover, it cannot be common property; capital and profit are private property, from which other people are excluded. The individual capitalist invests in order to replace the original capital and to generate a surplus, which is the profit. The capital itself does not diminish, it is not spent but always replaced. The capitalist lives off the profit. Whoever spends his or her capital on consumption is not a capitalist. The ideal type of a capitalist action consists in acquiring something with a certain invested amount of capital and selling it at a higher price. This something can be someone's labor power but it could also be anything else.

Inequality is usually studied in quantitative and economic terms. These generally refer to income and, less frequently, to profession or wealth. This approach is misleading. It reduces the issue of inequality to one dimension, which is not even the most relevant one. Inequality is about domination, not about money or careers. We are made to believe that we compete for a better job or more money. The cards for this competition, however, are dealt before it even begins. And the competition mainly takes place within the peer-group or the framework of a social class. Ideology tells us that the best in this competition win and that wealth or success is due to individual merit. Thereby, it renders the conditions and structures of competition invisible [1].

The inequality in capitalist societies is often not down to differences in talent and skill, but it is driven by resource inequality and inequalities of inheritance leading to differences in education, economic capabilities, and the number of opportunities available [3]. Inequality is not a result of competition, it is a starting condition. Women were given the right to vote – but at that point, men had already captured all leading positions in society and all capital. Slaves were freed – but they had no education, no money, no connections, no respect, no access to jobs and markets. The poor were given the right to participate in the market – but they had no capital. The formerly excluded groups were able to achieve minimum rights through long struggles but they never received even a small fraction of the privileges of the formerly included groups. They were integrated as subalterns into the "democracy". This is the basis of our invisible inequality.

The age of "financial capitalism", and at least since 1980, along with the financialization of the economy, inequality increased because labor flexibility increased, trade unions lost power hence labor market institutions weakened, and public social spending started to retrench and did not compensate for the vulnerabilities created by the globalization process. The change, however, was not exogenous but was caused by a political change since the end of the 1970s that imposed a new economic paradigm or consensus favoring globalization and finance. The important technical progress that was occurring was also functional to that change. However, technological progress is not a cause of inequality: the way technological progress affects income distribution is shaped by economic and social decisions. Both globalization and finance increased pressure on labor, changed capital-labor relations, and allowed for an increase in labor flexibility and a weakening of labor market institutions and social policy, which in turn led to a reduction in the wage share. The increase of income inequality was just the natural consequence of this process [2, p. 18].

The importance of the following six changes for the process of globalization and financialization shaping a new economic regime can be especially underlined:

1. The political (and to some extent ideological) change that occurred during the 1980s, particularly in the United States and Great Britain with the new administrations of Reagan and Thatcher. These two political leaders were able to shape, to some extent, the international political consensus globalization required. This change was later promoted with the help of major international organizations, such as the International Monetary Fund (IMF) and the World Bank (WB), which had close ties with the Washington administration (Stiglitz, 2002), along with a new political economic doctrine that became known as the "Washington Consensus".

2. The financial deregulation that occurred in particular under the stimulus and policies of the Reagan and Thatcher administrations and later in many advanced and developing economies. Financial deregulation contributed to both the expansion of capital globally, in search of higher profits, and the intensification of finance and financial tools as an integral aspect of the economy. Economies across the globe soon became attracted to the process of financialization.

3. The fall of the Berlin Wall in 1989 and the following dissolution of the Soviet Union in 1991, which ended the Cold War and the ideological divide between Eastern and Western Europe and in a way between the Eastern and Western World. The inclusion of the former communist economies in the global economy, or to be more precise, in the economic system of Western Europe, North America and other few advanced economies also played a crucial role.

4. The deepening of the European Union integration process, which culminated in the Maastricht Treaty, introducing capital mobility along with the liberalization of trade, services, goods and labor in an important and large market.

5. The tremendous challenges posed by the technological progress that brought about the ICT Revolution and all the other great innovations introduced in transport and in telecommunications, substantially reducing transportation costs.

6. The takeoff (during the 1980s and 1990s) of several emerging economies – often identified with the term BRIC6 – in terms of economic growth and other development indicators [2, p. 22].

Capitalist society develops a hierarchy of social classes. Class position as well as class culture are passed on from one generation to the next. This is rendered invisible by the myth of meritocracy, which postulates that any inequality is result of a competition on a level playing field. In conjunction with the suggestion that competition is about money, the dominated 99.93 percent in capitalist societies are pushed to labor for the 0.07 percent. The nature of capitalism has led to society's biggest problem of huge gaps of widening inequality that has led to further worsening problems that are becoming continuously more difficult to solve.

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Session work № 4

CURRENT RESEARCH IN THE FIELD OF INFORMATION COMPUTER TECHNOLOGIES

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ACCURACY OF GEOLOCATION SERVICES AND USE OF GPS-COORDINATES: WEB-QUEST-BASED RESEARCH

Introduction

The aim of this study is to assess the impact of external factors on the operation of the geopositioning system. Today, GPS is widely used in many industries of mankind, such as military, aviation, maritime, navigation of ordinary users. Significant spread of this technology is observed in many geographical areas, such as cartography, geodesy. Issues related to the use of geolocation systems for research have interested many scientists. [1] The main factors of such rapid development of this system are its high accuracy and ease of operation. Therefore, the study of the influence of external factors on the accuracy of the geolocation system is currently relevant.

The Global Positioning System (GPS) is a surveying method used to precisely locate a three-dimensional position (latitude, longitude, and elevation) anywhere on the surface of the Earth. The system can be used at any time under all weather conditions. The GPS has replaced traditional survey methods as a low-cost, high-accuracy technology. It is also a very quick survey method to use, which on hazardous waste sites, serves to minimize personnel exposures to a variety of potential hazards.

One example of the use of GPS is a variety of navigators, which have become quite popular. They are used when traveling by transport and when walking. A characteristic of many movements is the distance traveled. The formula for its calculation is usually one: the sum of the distances between all points on the path. But sometimes some points can quite distort the overall look of the route. This is because the determination of geographic coordinates depends on many factors, such as: the presence of WiFi hotspots nearby, mobile network coverage, altitude, high objects nearby. Therefore, it was decided to investigate this problem in more depth in order to draw conclusions about the accuracy of algorithms that determine the position of the device on the surface of the globe. The urgency of geolocation accuracy research is due to the significant spread of applications that use geographic data devices [10].

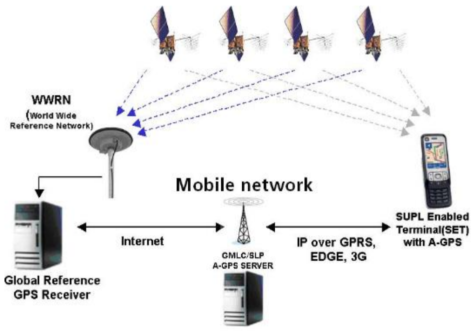

Fig.1 – The principle of GPS functioning [10].

Currently, there are many software developments that use user geographic data. For the most part, they are mobile games. The most popular products were reviewed during the study.

1. Pokémon Go - a multiplayer augmented reality (AR) role-playing video game from the Pokémon series. Developed by Niantic and originally released in the US, Australia and New Zealand on July 6, 2016 for iOS and Android mobile devices. A feature of Pokémon GO is the overlay of virtual images on real-world images.

2. Shadow Cities is an early location-based augmented reality game created by the Finnish company Gray Area. The game took place in a "parallel world", using the physical location of the GPS of the player on the game map, fighting with other players nearby.

3. Ingress (or Ingress Prime) is an augmented reality mobile game developed and published by Niantic for Android and iOS devices. Ingress uses GPS to find and interact with "portals" that are in close proximity to the player's actual location.

4. Parallel Kingdom is a mobile multiplayer game based on location, which placed the player in the virtual world on top of the real world, based on the player's GPS location.

All these software products have their own characteristics. Most of them do not take into account the error of determining the geographical coordinates, so often players have problems with interaction with the elements within the game. Thus, the task of assessing the impact of external factors on the operation of the geolocation system using the Android Location API is relevant and important.

The study did not aim to develop a system of web-quests, but after conducting a series of experiments, it was found that it will be much more convenient to represent it in the form of an application.

After analyzing the tasks to be implemented by the module, a list of them was compiled:

- saving data on experiments to determine the accuracy of geolocation services;
- interface for data entry, processing;
- user-friendly interface for data interaction [8].

Thus, it becomes obvious that the possibility of implementing these tasks directly depends on the quality of design and optimal choice of technologies for geolocation and database implementation.

Given the above, the purpose of this study is to assess the impact of external factors on the accuracy of the geolocation system.

Accuracy of geolocation services and use of GPS-coordinates on the example of web-quest

Android Location API technology was chosen for software implementation of the research. The API defines the functionality provided by the program (module, library), while the API allows you to abstract from how exactly this functionality is implemented.

Software components interact with each other using the API. In this case, the components usually form a hierarchy - high-level components use the API of low-level components, and those, in turn, use the API of even lower-level components [8]. Google APIs are a set of application programming interfaces (APIs) developed by Google that allow you to interact with and integrate with Google Apps. Examples - Search, Gmail, Translation, or Google Maps. Third-party applications can use these APIs to use or extend the functionality of existing services.

APIs provide features such as analytics, machine learning as a service (forecasting API, or access to user data (when permission is granted to read data). Another important example is Google's built-in map on a website, which can be achieved with the static API Maps, Places API or Google Earth API [11].

To invoke a Google API feature provided in the Google Play services library (such as Google Sign-in and Drive), it is necessary to create an instance of a single API client object that is a subclass of GoogleApi. These objects automatically control the connection to Google Play services, process requests offline and execute them in the order when the connection is available [6].

GoogleApiClient object can be used to access Google APIs provided in the Google Play library (such as Google sign-in, games, and disk). The Google API client provides a common access point to Google Play services and manages the network connection between the user's device and each Google service [6].

Once connected, the client can call the features of the API services for which the application is authorized, as specified in the API and in the areas added to its GoogleApiClient object.

A formula for the relative estimation of the accuracy of geolocation algorithms is also derived. The formula takes a value from 0 to 100: 0 means that at this distance to the test point, the accuracy is too low, and for 100 - that in this case, the accuracy can be ignored. For ease of calculation, 2 concepts were introduced: **radius rad** - *if the point where the user is in the circle of such a radius, then the accuracy should be calculated, otherwise - no, then the estimate of relative accuracy is zero*; **radius perrad** - *if the point where the user is in the circle of such radius, then the relative accuracy estimate is 100, while perrad is always less than or equal to rad.* The explanatory figure to the formula is shown in Fig. 2.

Therefore, the final form of the formula is as follows:

$$mark = 100 - \left(\left(\frac{dist}{rad - perrad}\right) * 100\right), \qquad (1.1)$$

where mark is the relative score; dist is the distance from the point where the user is located relatively to the examined point. This distance is calculated in the built-in Android Location API. One of its variants is the formula of haversinus:

$$haversin\left(\frac{d}{r}\right) = haversin(\varphi_2 - \varphi_1) + \cos(\varphi_1)\cos(\varphi_2)\, haversin(\lambda_2 - \lambda_1)\text{,} \quad (1.2)$$

where d is the distance between two points (according to a large circle of the sphere), r is the radius of the sphere

- the latitudes of point 1 and point 2
- the length of point 1 and point 2

From here we deduce d:

$$d = 2r\arcsin\left(\sqrt{sin^2\left(\frac{\varphi_2-\varphi_1}{2}\right) + \cos(\varphi_1)\cos(\varphi_2)sin^2\left(\frac{\lambda_2-\lambda_1}{2}\right)}\right)\text{,} \quad (1.3)$$

Both formulae are only approximate if we take into account that the Earth is not an ideal sphere: the radius of the Earth R varies from 6356,752 km at the poles to 6378,137 km at the equator. Moreover, the radius of the earth's curve drawn from north to south at the poles (≈6399,594 km) is 1% larger than at the equator (≈6335,439 km) - so the haversinus formula and the cosine theorem cannot be guaranteed to be more accurate than 0, 5% [11].

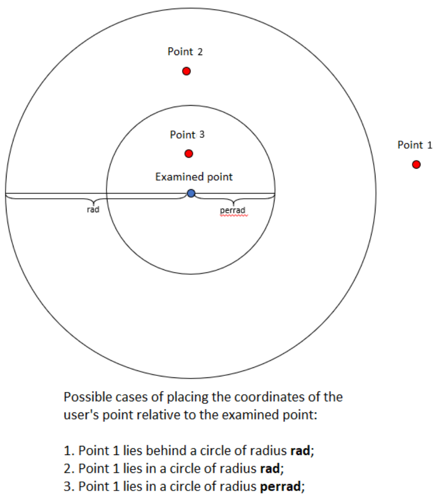

Fig.2 – Determining the distance from the point where the user is located to the examined point

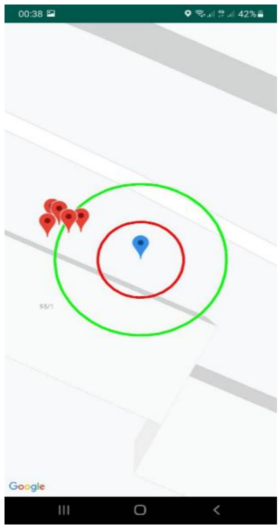

Fig.3 - Screenshot of the results of the mobile application for an experiment to assess the impact of external factors on the operation of the geopositioning system

Using the developed mobile application, experiments were performed to assess the influence of external factors, such as the model of the device using which the study was conducted; its Operating System; WiFi point nearby; Bluetooth enabled; Mobile Data enabled; the floor on which the user is located during the experiment and cloudiness, the results of which are shown in Table 1. Figure 3 shows a screenshot of the results of the developed mobile application to conduct experiments for assessing the impact of external factors on the geolocation system using Android Location APP.

Model of device, operation system	Wi-Fi	Bluetooth	Mobile Data	Floor	Cloudiness	Coordinates in the app	Number of satellites	Assessment of the quest
1	2	3	4	5	6	7	8	9

Samsung Galaxy M20, Android 9	+	+	+	4	low	49.4365334, 27.0120489	9	100
Samsung Galaxy M20, Android 9	-	-	+	1	low	49.436552, 27.012048	8	70
Samsung Galaxy M20, Android 9	+	-	-	4	low	49.4365457, 27.0120476	9	100
1	2	3	4	5	6	7	8	9
Samsung Galaxy M20, Android 9	-	+	-	1	low	49.436747, 27.012059	4	0
Samsung Galaxy J7 2016, Android 8.1	+	+	-	4	low	49.436502, 27.0120723	9	85
Samsung Galaxy J7 2016, Android 8.1	-	-	-	1	low	49.436791, 27.012340	3	0
Samsung Galaxy J7 2016, Android 8.1	+	-	-	3	low	49.436500, 27.012063	8	100
Samsung Galaxy J7 2016, Android 8.1	-	+	-	2	low	49.436623, 27.012270	3	0
Doogee X5MAX PRO, Android 6.0	+	+	-	4	high	49.436572, 27.012173	8	40
Doogee X5MAX PRO, Android 6.0	-	-	-	3	high	49.436690, 27.012228	2	0
Doogee X5MAX PRO, Android 6.0	+	-	-	1	high	49.436501, 27.012093	7	97
Doogee X5MAX PRO, Android 6.0	-	+	-	2	high	49.436702, 27.012231	2	0

Table 1 - Data table with the results obtained during the experiment

Conclusions

The aim of this study was to assess the impact of external factors on the operation of geopositioning system. An experiment with the use of developed mobile application based on Android OS and using static map API, Places API or Google Earth API was conducted [6].

The input data for the experiment for assessing the impact of external factors on the operation of the geolocation system are the device model, its operating system, the presence of a nearby access point, Bluetooth enabled, mobile data enabled, the altitude of user's location and cloudiness. Research on the accuracy of geolocation services plays an important role in creating applications that use user geographic data, because a small error with a large amount of data can greatly distort the end result, for example, when calculating the cost of a taxi route. If the error is ignored, the overpayment can be up to 400% percent, so there is always a need to take into account the fact that certain geographical coordinates may differ from the actual, because the determination of latitude and longitude depends on altitude, cellular coverage, WiFi points nearby and many other factors.

The practical significance of the conducted research is that it can be used for:

1. Improving the automated system of taxi drivers (taximeter) to reduce the mileage of the car, as well as time and financial costs to find the right location;
2. In game development industry for mobile devices, while developing mobile games such as web quests, in which the accuracy of the GPS system is crucial.

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ZK-SNARK ZERO KNOWLEDGE PROOFS: BASIC PRINCIPLES

A goal of this study is analysis of vulnerabilities of zk-SNARK type zero knowledge protocol “GRO-16” and conditions, in which those vulnerabilities are critical.

zk-SNARK stands for zero-knowledge succinct non-interactive argument of knowledge. Let us for simplicity say that it means that a person is able to prove that s/he has something without showing it to verifier. Let us look at the next example that describes the main idea of such zero-knowledge proof.

The greatest warrior Victor and the smartest wizard Peggy had their adventure, but an accident happened to Peggy. Victor asks the blind god to resurrect her, but he was answered, “I will fulfill your will, but if you prove me that there are another colors but darkness”. Victor took two apples, one is green and another is red, and gave it to the blind god and said to him, “Take these apples and hide them behind the back. Switch them or don’t and then show them to me and I will say you switched them or you didn’t”. Of course, Victor could guess, but if they do the procedure even for a ten times, then the possibility of fraud (that Victor could guess ten times in a row) would be equal to 0.00098, so they perform this ‘data exchange protocol’ for a hundred times that the blind god could be sure that there is no way Victor could just guess every time. The blind god resurrected Peggy and they continued their adventure.

So, what did we see? A person was able to prove a knowledge of something without actually showing it to verifier. This type of zero-knowledge proofs found itself the most in blockchain where a person is able to prove having a coin.

“Non-interactive” means that a verifier does not have to be “online”. A prover can just post his or her proof and then every person is able to verify that proof. That is really matters when we talk about blockchain with a big amount of users.

“Succinct” means that creation and validation of a proof are fast. However, we could achieve this only if we create something that is called as “SETUP” – a number of parameters that are known to every participants of blockchain and used to create and verify proofs of having a coin. Creation of SETUP set is the hardest and the longest part of zk-SNARK type proofs, because it requires that every user participate in its creation. In addition, SETUP set contains some secret parameters and their exposure would allow creating fake and valid proofs, so an algorithm of creation of SETUP should be strong.

The object of my research is process of protection personal data while performing transactions in the blockchain. The subject of this research is attacks on personal data protection protocol in blockchain subject to reuse setup.

The SETUP stage of zero knowledge prove protocols zk-SNARK type was considered step by step and we developed SETUP constricting algorithm. Vulnerabilities of generation setup parallelization were analyzed and five types of attack on protocol GRO-16 were developed. They are based on the human factor and the conspiracy of several participants. In addition, strategies have been developed to protect against the attacks described in this work, both algorithmic and using third-party devices.

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ADA PROGRAMMING LANGUAGE: OUTLINE AND FEATURES

If we ask IT specialists anything about Ada programming language, the majority will not give us a direct answer. Only a few will say that it is a dead language, once invented by the Pentagon. In fact, Ada is widely used in various fields nowadays. One of the vivid examples can be found on the fourteenth line of the Paris Underground where you can see a train without a driver's cab. The train movement on this line is fully managed by Ada program.

Ada programming language was designed by a team led by Jean Ichbiah of CII Honeywell Bull during 1977-1983 under contract to the Department of Defense. The official birthday of Ada programming language can was established on February 17, 1983 – the date when the standard ANSI/MIL-STD-1815-A-1983 was approved. The 1815 number was assigned because it was birthday of the namesake of the language Augusta Ada Lovelace. Following the 1815 is the initial “A” indicating that this is the first standard to be established for Ada programming language [1, p.505]

The language addresses many of the same tasks as C but with one of the best type-safety systems available in a statically typed programming language. Both languages approach the reliability vs. efficiency tradeoff from different angles, but each has a place in embedded-systems programming.

C offers a variety of data types and data-structuring facilities (arrays, structs, pointers, unions, enums) with straightforward and efficient implementation, conventional algorithmic features. The language is very much a WYSISWYG (“What You See Is What You Get”) language. When you write a C program, you have a good idea of what the resulting compiled code and data will look like. Thus, C becomes a typical choice for low-level software that needs to interact directly with the hardware.

Ada is a strongly typed extensible language, with facilities to define new types in various categories: integers, floating point, fixed point, enumeration, arrays, records (structs), and access types (pointers). Ada’s emphasis has always been on the reliability, readability and maintainability, and its benefits show up most clearly when these requirements are critical (for example in a large, long-lived system where total software lifecycle costs need to be taken into account). [2].

Comparing these two languages specialists [3] define:

1. the development of programs in Ada is 60% cheaper than similar software projects realized in C;
2. programs in Ada have less defects than programs in C;
3. the complexity of learning the Ada programming language is no higher than the complexity of learning C;
4. programs in Ada are more reliable than the programs in C.

Being developed in the '80s following an idea of the Department of Defense Ada programming language was updated every approximately ten years giving rise to several releases Ada 83, Ada 95, Ada 2005 and Ada 2012.While no longer mandated for use in work for the Department of Defense, Ada remains an effective language for engineering large programs. Today, many industries use Ada, which is defined by an international programming standards called the language reference manual (LRM).

Choosing a language for a software project was previously a purely technical issue. Nowadays it has become a matter of strategic importance, with far-reaching implications for the success of the project. Thus, using Ada organizations save on development costs because it does not require extended testing, upgrades and quality assurance checks. Instead, it was designed with embedded checks so that users can quickly and effectively detect errors that would be caught during the debugging process with C-based languages. Ada programing language is inter-operable with many other languages. Ada-based programs are ideal for companies because it is easy and inexpensive to train programmers.

The main benefits of Ada programming language:
1. Helps you design safe and reliable code
2. Reduces development costs
3. Supports new and changing technologies
4. Facilitates development of complex programs
5. Helps make code readable and portable
6. Reduces certification costs for safety-critical software

Ada is a highly advanced programming language that is designed according to the fundamental software engineering principles of efficiency, reliability, portability and maintainability. It provides everything from information hiding to abstract data types to concurrent-oriented programming functionality. Almost all professional Ada programmers follow a controlled validation process that eliminates poor practices and vulnerabilities that were possible through old languages like C. Ada programming language is a highly flexible and structured object-oriented computer programming language.

Today, software written in Ada forms the backbone of not only military hardware, but also commercial projects like avionics and air-traffic control systems. Ada code controls rockets, many satellites, and other systems where small glitches can have major consequences.

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ADAPTIVE CLUSTERING IN DATA MINING

Clustering is the task of dividing a set of objects into groups called clusters.

To describe the degree of similarity, the space in which the objects are located, the scalar metric d (x, y) can be taken, this is the distance between any two objects. This metric must be symmetrical, inherent, and consistent with the triangle equation. The most popular and fastest is the K-means clustering method.

K-means is a cluster analysis method, the purpose of which is to divide m observations into k clusters, with each observation referring to the cluster to the center (centroid) of which it is closest. Euclidean distance is used as a measure of proximity $\rho(x, y) = \|x - y\| = \sqrt{\sum_{p=1}^{n}(x_p - y_p)^2}$; $x, y \in R^n$.

The k-means method divides m observations into k groups (k ≤ m) $\mathbf{S} = \{S_1, S_2, \ldots, S_k\}$ to minimize the total square deviation of cluster points from the centroids μ_i of these clusters S_i:

$$\min\left[\sum_{i=1}^{k}\sum_{x^{(j)}\in S_i}\left\|x^{(j)} - \mu_i\right\|^2\right],\ x^{(j)} \in R^n, \mu_i \in R^n,$$

Adaptive clustering is understood as an analysis in which the parameters that determine the result are selected and adjusted in the process of performing the task, based on the specified criteria and the recommendations given by the expert, in order to achieve the best result. Each of the parameters is suitable for use in certain cases (for example, the Squared Euclidean distance is used to give more weight to objects that are more distant from each other).

The number of clusters, the threshold value for stopping the operation of the algorithm, the method for choosing the initial centers, the maximum number of iterations, the amount of simultaneously processed data, the number of previous sections, the distance coefficient, the exact value of these parameters is unknown and is selected in the range of values from 2 to | X | clusters, as well as through expert judgment.

Using standard values can lead to very poor results. Expert estimates of the algorithm launch parameters will be averaged and refined in the process of applying the algorithm. In general terms, the criterion for assessing the quality of the clustering task is a numerical indicator that is calculated based on the results of clustering at a given iteration, the essence of which is a quantitative assessment of the quality of the solution.

1. Partition clarity indicators:

- Partition factor:

$$PC = \frac{\sum_{q=1}^{Q} \sum_{k=1}^{K} u_{ij}^2}{Q}, \quad PC \in \left[\frac{1}{K}, 1\right].$$

- Clarity index:

$$CI = \frac{K \cdot PC - 1}{K - 1}, \quad CI \in [0,1].$$

2. Entropy criteria (the lower the entropy value, the better the clustering is done)

- Modified entropy

$$PE_M = \frac{\sum_{q=1}^{Q} \sum_{k=1}^{K} u_{qk} \ln(u_{qk})}{Q \ln K} = \frac{PE}{\ln K}, \quad PE_M \in [0,1].$$

3. Compactness indicator:

$$CS = \frac{\sum_{q=1}^{Q} \sum_{k=1}^{K} u_{qk}^2 \cdot d^2(x_q, c_k)}{Q \cdot \min\left\{ d^2(c_i, c_j) \middle| i, j \in \overline{1,K}, i \neq j \right\}}.$$

The low value of this criterion says that all our clusters are well separable from each other, that is, they differ that 1 cluster retains 1 class.

4. Index of efficiency:

$$PI = \sum_{k=1}^{K} \sum_{q=1}^{Q} u_{qk}^2 \left(d^2(c_k, \overline{x}) - d^2(x_q, c_k) \right).$$

With the larger criterion, the larger the optimal number of clusters for our tasks. Iterative criterion.

In practice, these actions give us great efficiency and the ability to use our model several times for different tasks. In practice, the dependence of the quality of clustering on the number of clusters is greater, because this is very much. In practice, the choice of the number of clusters is one of the most important and difficult tasks. Choosing the right number of clusters will give the best result.

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ADOLESCENT COMPUTER-INTERNET ADDICTION AND ITS RELATIONSHIP TO PERSONALITY

Abstract. The process of computerization is gaining momentum in modern world. As a form of telecommunications, computer networks are a fundamentally new layer of social reality. The huge flow of information mostly unnecessary and sometimes harmful, makes anxious even an adult, when adolescents who are not resistant to various irritations suffer more. The article analyzes the essence of the "computer addiction" notion, its relationship with addictive behavior, describes its types and stages of formation, highlights the research of modern scientists from different positions on computer addiction as a type of addictive behavior.

Key words: computer addiction, adolescents, computer addiction, health, addictive behavior.

Relevance of the topic: Recently, the computer has become an integral part of our lives. It is impossible to overestimate the positive significance of this scientific and technological achievement. However, the period of widespread use of computers and the Internet has revealed a number of shortcomings, namely its negative impact on humans, especially adolescents, whose mental health is more vulnerable and unprotected than adults. In recent years, the number of young people in Ukraine who have access to computers, tablets, and mobile phones has increased significantly. The World Health Organization has introduced computer addiction into the category of pathological diseases. It is difficult to imagine the modern world without a computer and an Internet connection. Today, the Internet and computer technology are not only the main driving force of progress, but also the cause of computer addiction [4; p. 67].

The purpose formulation of research: to analyze the phenomenon of computer addiction as a type of addictive behavior.

Materials and methods: methods of theoretical analysis and generalization of scientific literature within the research issues are applied.

Results and discussion: Today, the pace of computerization exceeds the pace of development of all other industries. No organization or institution in the world can do without computers and computer networks. Computers are rapidly being introduced into human life, and we often do not realize that we are depending on them. [1; p. 114]

In connection with the "computerization" and "internetization" of Ukrainian society, the problem of "pathological" use of computers became relevant, which began to be used by O. Asmolov, considering it as one of the possible stages of Internet addiction development. Among Ukrainian computer and Internet users, between 2% and 6% are considered addicted, most of them are teenagers. Today, the problem of computer addiction has become the subject of research by psychologists, doctors, educators, social educators and sociologists [5; p. 16].

Computer addiction was first discussed in the early 1980s by American scientists. The term "*computer addiction*" was first used in 1990. Nowadays, the term "computer addiction" has no specific definition, but the phenomenon of a pathological relationship formation between man and computer is obvious and is gaining momentum. Therefore, in our opinion, *computer addiction* is a pathological human urge to work or spend time at the computer.

There are three main types of computer activity:

1) Cognitive – a passion for knowledge in the field of programming and telecommunications;

2) Gaming – a passion for computer games and, in particular, gaming via the Internet;

3) Communicative – a passion for network communication [3; p. 6].

Adolescence is a period of value formation, expansion of social contacts, whereas a dependent child limits his circle of communication with the computer. As a result, such children have a lack of life experience, infantilism in solving life problems, difficulties in social adaptation, poverty of the emotional sphere, somatic disorders, narrowing of interests, the desire to create a personal world, escape from reality [9; p. 221].

The analysis of computer dependence from the standpoint of the biological approach was analyzed by T. Bolbot, who drew attention to the relationship between mental disorders and addictive manifestations. Bolbot believes that this dependence can be divided into primary and symptomatic. Thus, symptomatic computer addiction is similar to other forms of mental disorders, which are dominated by diagnostic taxa such as socialized and unsocialized behavioral disorders, organic anxiety disorder, personality and behavioral disorders caused by disease, brain injury or dysfunction, and mild mental retardation.

Yurieva L., Balbot T.Yu. dealt with the analysis of the stages of formation of computer dependence, as well as methods of diagnosis and prevention.

The formation of computer addiction occurs in three stages:

The first stage is the risk of developing computer addiction. The main characteristics are the increase in time spent to achieve the goal and work on the computer, the loss of a sense of time.

The second stage is already formed computer dependence. The main signs: emotional and volitional disorders and mental dependence. There is a growing tolerance for the computer, obsessive thoughts about it and fantasy formation, de-actualization of the main problems - sleep, rest, eating, personal hygiene, on the other hand - there is a kind of infantilism, almost complete helplessness in the world of social norms and relations.

The third stage is a total computer dependence. There are signs of both mental and physical dependence. Attempts to control the computer remain unsuccessful. [8; p. 93]

In 2009, Kyivstar, a Ukrainian telecommunications company providing communication and data transmission services based on a wide range of mobile and fixed technologies, initiated the All-Ukrainian Sociological Survey "Knowledge and

Attitudes of Ukrainians to Children's Safety on the Internet" conducted by the Institute of Sociology of the National Academy of Sciences (NAS) of Ukraine.

According to the results of the study:

- 76% of parents do not know which sites their children visit;

- 28% of surveyed teenagers are ready to send their photos to strangers online;

- 17% without hesitation report information about themselves and their family (home address, profession, work schedule of parents, existance of valuable things in the house), children do not think why strangers are interested in this kind of information);

- 22% of teenagers often visit adult sites;

- 28% of teenagers seeing alcohol or cigarettes advertisement on the Internet, at least tried to buy them once, and 11% tried to buy drugs;

- 14% of respondents from time to time send paid SMS for bonuses in online games and only a few pay attention to the cost of the service. [7]

Today, researchers of computer dependence Bezpalko O., Galoluzova M., Grishko V., Nikitin V., Orzhekhovska V., Pavlenyuk P., Fedorchenko T., consider it being an *addiction*, ie a specific deviation in human behavior, according to which she the sense of reality is disturbed, the sense of time and space is lost, the control of one's actions is limited.

First of all, the term *"addiction"* (bad habit, predisposition, addiction) was used more often to describe the behavior of people addicted to any chemicals, such as alcohol, nicotine, drugs.

Today, the concept of addictive behavior in a broader sense as a repetitive habit that increases the risk of disease and is associated with personal and social problems is emerging in the scientific community.

Addictive behavior (predisposition, bad habit; Latin - addictus) - a form of deviant human behavior (mostly in children, adolescents, youth), which is characterized by the desire to move away from reality by artificially changing their mental state due to the use of various chemicals or constant fixation of attention, thoughts, actions on certain activities in order to develop and maintain intense emotions. From a subjective point of view, addictive behavior is considered a "loss of control", despite all attempts to restrain or control themselves. [2; p. 33]

There is no single approach in modern science to understanding the relationship between "dependance" and "addiction". In psychological dictionaries, these concepts are considered synonymous. However, there is an opposite position, which is based on the fact that these concepts should be distinguished. Thus, in the United States of America, where the science of addiction originated, this term represents a branch of medicine that deals with the study and treatment of only chemical addictions, ie identified with drug use (narcology).

Taking into account the lack of a single interpretation of the concept of *"computer addiction"* in relation to adolescence in scientific sources, we proposed the concept in the following formulation: *"computer addiction of adolescents - a kind of personality deviation which is determined by an artificial change in the psychological* *state and value priorities as a result of focusing on gaming activities, which replaces real life, satisfies the need and compensates for the lack of social contacts".*

Healthcare professionals in the developed countries are drawing attention to the problem as young people spend more and more time at the computer, preferring the virtual world to the real world, and reports of "death at the monitor" appear in the mass media from time to time. Psychiatrists have called this condition a special term "computer addiction", but most Ukrainian psychologists have not even heard of this dangerous disease [6].

Conclusions and prospects for further research. Thus, after a study, it is defined that computer addiction is a pathological urge to work or spend time at the computer. In addition, computer addiction has been identified as a disorder of deviant behavior. An analysis of the scientific literature has shown that humanity is increasingly immersed in computers and computer networks, and the number of people, especially adolescents, who become psychologically dependent on computer activity is increasing every day. This is a modern problem, scientists from different fields must come together to study the phenomenon under discussion. However, public health professionals already need to influence adolescents to avoid the negative consequences of this interaction, so that this modern technical invention called "computer" really promotes the development of adolescents, not inhibits them.

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WEBSITE DEVELOPMENT

The information we encounter every day, whether it is watching news on the Internet or ordering pizza, is considered to be the basis of modern life. As the life is impossible in the information vacuum, information permeates all spheres of human life and society and as a result there arises a necessity for a place for this information to be stored. Today, the Internet has entered all spheres of human life - people communicate owing to the Internet, various mobile applications work by means of the Internet. Moreover, teleworking ranks first in the whole world during difficult times of pandemic. In order to find out the latest information everyone browses hundreds of news on different websites every day. Websites have become an indispensable part of human life. All structures of medical, educational as well as public resources are posted on the Internet.

Thus, it can be inferred that the modern world cannot dispense with the relevant information which can be better provided due to its right location as well as correct presentation. It becomes possible owing to a site where each user can find everything desired and needed, from the usual viewing of news to research and work with databases.

Designing your own website presupposes a great variety of nuances. Higher priority should be accorded to the defining the purpose of your site, designing and researching your potential customers' needs. This work should be done prior to domain determining, site layout, and its optimization. Specifying your site theme is a key to its success, because, to the extent feasible, you should always rely on the interests and views of your future users.

The contemporary world is constantly filling up with new ingenious ideas and many programming languages are established. A young specialist should master the basic knowledge that enables him to learn new programming languages through experience and use these skills in complex codes. In addition to skills acquired while studying at the university, a qualified specialist should be highly-logical and imaginative. It is the creation of websites that makes it possible to use the MVC pattern, to develop an administration system. In order to implement such a site, it is necessary to analyze the existing websites that are considered to be the best judging by various criteria, in any case, it is necessary to develop an adaptive interface using

HTML5, CSS3, JS. In order to quickly access the data, the user is looking for, you should design the database for a specific subject area.

A web site (usually the Internet) is a resource that consists of one or more web pages with hypertext, text, media (pictures, video, audio) and other types of content available on one of the web protocols. Web pages and other web files are served by web servers, a special software that delivers web content to web clients. Such web protocols as HTTP, HTTPS, SPDY, WebSocket are the most prevalent nowadays. A web browser, special software able to display web pages and to interact with other types of web content, serves as a client to whom a web server usually delivers website content. Both web content and websites can be static and dynamic. A static website or web page is stored on the server as separate static files, and is delivered by the web server without any changes in the form they were created by the author. Typically, these types of web pages do not have the ability to interact with the user and are only suitable for viewing the information hosted on them. Dynamic web pages are generated by means of a special program that runs on a web server and can be compiled from different components by a web server on the fly. Such pages mainly allow you to interact with the user, providing advanced capabilities not only to view but also to save or alter the information. The content of dynamic pages at the same address may differ over time, or be different for different visitors at the same time [2, 3].

Having examined the definition of a website, it is worthy to study the methods and ways of its creating. A content management system well be considered initially. CMS is a software for managing websites or other information resources on the Internet or individual computer networks. The first CMSs were developed in large corporations to organize work with the documentation. In 1995, a single entity, Vignette, separated from CNET to launch a market for commercial CMSs. Over time, the product range has expanded and increasingly integrated into modern networking solutions up to popular web portals. A great deal of modern CMSs are distributed as free and easy-to-install programs developed by groups of enthusiasts under the license of GNU/GPL [1].

The MVC pattern, an architectural template applied in software design and development, will also be used for the correct software development. This template implies the division of the system into three interrelated parts: data model, user interface and control module. It is used to separate the data from the user interface in a manner the changes of the user interface have a minimal impact on the data, and changes in the data model can be made without changes to the user interface. The purpose of the template is a flexible software design, which should facilitate further alterations or extensions of programs, as well as provide the ability to reuse individual components of the program [4].

To be able to view websites from different devices, one is required to use adaptive layout - an approach that involves changing the design depending on user behavior, screen size, platform and device orientation. In other words, the page should automatically adjust to the resolution, resize images, etc. It will eliminate the need to design for each new device appearing on sale. Insofar as the developed website is focused on different devices, so the adaptive page layout will be used for the development.

Hence, different programming languages should be used when designing a page. They will perform different functions, and their combination will benefit to the development of a full-fledged site. The application of adaptive layout is considered to be a prerequisite for browsing and using a page from any device. For the correct operation of the website, it is advisable to use the MVC pattern, which allows you to divide the system into three interrelated parts: the data model, user interface and control module.

According to John Lasseter "Art challenges technology, and technology inspires art". Creating a website can be compared to this phrase because not only a thorough knowledge you should possess, but also a desire as well as a creative attitude.

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MODERN RESEARCH IN THE FIELD OF INFORMATION AND COMPUTER TECHNOLOGIES

Today the young computer science students are of the highest demand than ever. As statistics show, computer science graduates have some of the highest starting salaries out there and are in so appreciated that they can afford to be choosy concerning the type of job and industry they opt for.

And it’s not difficult to see why. Technology has been increasing so sharply during recent years, there has been a steadily growing demand for smart graduates to come in and help to transform areas ranging from data infrastructure to cyber security. If you are interested in bright a career in computer science, it’s important to stay up to date with the latest trends in computer science research, to make an informed choice about where to head next. We propose to review these six trends storming the tech industry!

1. Artificial intelligence and robotics

Predicting that the global robotics industry will reach $ 80 billion by 2024, much of this growth will be possible due to investors' interest in artificial intelligence (AI), one of the most controversial and mysterious areas of computer science research. The technology to create artificial intelligence is still in its infancy, but technology giants such as Facebook, Google and IBM are investing huge sums of money and resources in this innovation study and research of AI. Unfortunately, there are not enough opportunities for full implementation of the technology, and there are huge prospects in this area.

2. Big data analytics

Back in 2012, the Harvard Business Review called data science "the coolest job" of the 21st century. Yes, you read that correctly. More experts are needed in this area, and popular companies and agencies have stepped up their efforts to encourage and engage data professionals. From banking and healthcare, datasets are everywhere, as companies are increasingly trying to make better use of the vast amounts of data they own to personalize and improve their services.

3. Computer-assisted education

The use of information machines and software helps education and training, computer help brings many benefits and is useful in solving many problems. For example, for students with disabilities, he can implement an individual study program and give such students the opportunity to learn without exhausting themselves, freeing the teacher to spend more time with each person. Technology is gaining momentum, it is the future, and many teachers praise its ability to allow students to take active, independent and playful learning.

4. Bioinformatics

The exciting application of rich data sets, bioinformatics, or the use of programming and software development to generate vast amounts of biological information data for research holds great promise. Combining large pharmaceutical companies with software companies, bioinformatics is gaining popularity and employment opportunities for computer scientists and graduates interested in biology, medical technology, pharmaceuticals and computer information.

5. Cyber security

Analyzing the data of the US Bureau of Labor Statistics, cybersecurity jobs are expected to grow by 28 percent between 2016 and 2026 - much faster than the average for all professions, and there is a shortage of skilled workers. In February 2015, Barack Obama spoke of the need to "collaborate and explore partnerships that will help develop the best ways to strengthen our cybersecurity." Why does he think so? We live in a super-technological age, where absolutely everything happens on the Internet - from banking to dating to government infrastructure. Nowadays, data protection already exists necessity both for individuals and especially for states, which makes it another growing area of computer science research.[1]

6. Democratizing programming

This means making programming simple and straightforward for those who want to do it, and making machine or system programming more accessible. This is not a new idea; COBOL, the "common business-oriented language," was an attempt in the 1960s to create computer programs using English that would be more accessible to people far from programming. Today, we are seeing a huge interest in low-code platforms that promise us to create software without the need for specialists. There are also platforms such as consumer-focused IFTTT or enterprise-oriented Zapier, which allow a less technical audience to connect a variety of devices, SaaS platforms, endpoints and workflows to do interesting and relevant things. And if you're looking for an integration framework, Apiant, Blendr, Microsoft Flow, Pipedream, Quickwork and Tray.io (to name a few) can help. As for application development, Amazon Honeycode has gained momentum, although one of the authors of the radar describes it as "Microsoft Access in the cloud."

We believe that the ability to program, or at least have some idea of how it works, that we use, is extremely important. In Douglas Rushkoff's book, Program or Program, he argues that we must choose whether to control technology or allow those who have mastered it to control it. It is also an obvious fact that today requires more software than can be created by existing IT teams.

Tables are a typical example. Almost every business has a spreadsheet, and all representatives of the IT industry have seen what the disadvantages may be; Huge tables with imperfect business logic built into them are quite common. Not so long ago, and even more disturbingly, we have seen many health services around the world lose or incorrectly process COVID-19 data due to spreadsheet errors. Spreadsheets are typically used to allow non-programmers to quickly create, store, and process data without having to go through a long development cycle with "real" programmers. Low-code platforms are similar in that they promise to speed up software development by using pre-baked components and configuration instead of code. [2]

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OVERVIEW OF THE ADVANTAGES OF ADO.NET

ADO.NET is a data technology that is built on the .NET Framework. This technology provides a set of classes through which it is possible to send queries to databases, establish connections, receive a response from the database, and perform a number of other operations.

The basis of the database interface in ADO.NET is represented by a limited number of objects: Connection, Command, DataReader, DataSet, and DataAdapter. The Connection object is used to establish a connection to the data source. The Command object allows you to perform operations with data from the database. The DataReader reads the data returned from the request. The DataSet object is designed to store data from the database and allows you to work with them independently of the database. And the DataAdapter is an intermediary between the DataSet and the data source. Mainly, the work with the database will go through these objects.

ADO.Net offers performance benefits due to its disabled architecture, which is an extremely efficient and scalable architecture. The DataSet class in ADO.Net works in a completely disabled nature. This model allows the DataSet class not to know the origin of its data source, an unlimited number of supported data sources can be connected to the code without any hassle in the future.

ADO.NET applications can take advantage of the flexibility and widespread recognition of extensible markup language (XML). XML is a format for transmitting datasets over a network, so any component that can read the XML format can process the data. In fact, many classes in ADO.NET, like DataSet, are so intertwined with XML that they simply cannot exist or function without the use of this technology.

Moreover, it is important to note that there can be many database management systems. In their essence, they may differ. MS SQL Server, for example, uses T-SQL to create queries, while MySQL and Oracle use PL-SQL. Different database systems can have different data types. Some other points may also differ. However, the functionality of ADO.NET is built in such a way as to provide developers with a unified interface for working with a wide variety of DBMS.

However, in order to use the same set of objects for different data sources, it is required to use an appropriate data provider. The interaction with the database in ADO.NET is carried out through the data provider. Moreover, there can be its own provider for each data source in ADO.NET, which actually determines the specific implementation of the classes mentioned earlier.

The role of ADO.NET data providers is to allow direct data manipulation through SQL. ADO.NET includes a SQL Server data provider that is optimized to interact with SQL Server. It uses SQL Server's own tabular data stream (TDS) format to exchange information. This is skillfully done by the data provider Advantage ADO.NET.

Another advantage of ADO.NET is its rich object model. The entire ADO.NET architecture is built on a hierarchy of class inheritance and interface implementation. After following the necessary things in this namespace, the logical succession and support functions of the base class makes the whole system extremely easy to use.

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IMPACT OF SRNet NEURAL NETWORK REGULARIZATION ON STEGANOGRAM DETECTION POWER FORMED ACCORDING TO ADAPTIVE EMBEDDING METHODS

Today special attention is devoted to counteracting the leakage of confidential data of state and private organizations by using hidden (steganographic) communication systems. For organizing hidden communicating channels are widely used methods of embedding messages in digital data, particularly digital images. Providing high detectability of the formed steganograms needs using highly complicated computations of steganalysis methods [1] that make it impossible disclosing confidential data leakage in real-time. That's why the important task is to find rapid methods of steganogram detection, particularly with using convolutional neural networks.

Modern digital image steganography methods are based on an adaptive approach of data embedding into cover images. The approach is to represent the process of message hiding as solving an optimization problem – minimizing distortion of cover image while embedding fixed number of stegodata. One of the state-of-art adaptive steganographic methods is MG embedding method [2] based on minimizing Kullback-Leibler distance D_{KL} between distribution values of cover image elements P_c and formed steganogram P_s:

$$D_{KL} = \sum_{q \in Q} P_c(q) \cdot log_2(P_c(q)/P_s(q)),$$

where Q = {0,1,..., $2^k - 1$} – range of pixel brightness of digital image;

k – number of bits used to represent pixel brightness.

Ensuring high detectability of the steganograms needs highly complicated methods of statistical analysis to detect weak alterations of the statistical and spectral characteristics of cover image caused by message hiding and at the same time preserving high accuracy of estimation statistical characteristics of the images. One of the possible solutions to reduce the duration of the digital images' analysis and calculate local digital image characteristics is to use convolutional neural networks, particularly SRNet [1]. The feature of the neural network is digital images components analysis that corresponds to residual noises of the image and potentially can be used for message hiding [1].

In this paper was conducted the analysis of steganography detector efficiency based on SRNet neural network for hidden data detection embedded according to MG adaptive method. Examined the case of using an additional regularization layer of SRNet aimed for boosting the accuracy of digital image classification while working on image datasets of different quality. As regularization method was used Dropout that for today is one of the most effective ways to avoid overfitting of the neural network by ignoring neurons that are chosen randomly during the training stage.

The payload of the steganography detector with stegodata varied in the following range: 3%, 5% 10%, 20%, 30%, 40% and 50%. The research was conducted using pseudorandom samples of 2000 images on the standardized dataset MIRFlickr [3]. The detection accuracy of the designed steganography detector was assessed with the next standard metrics: False Acceptance Rate (FAR), False Rejection (FRR) and classification accuracy. The values of these metrics obtained by results of cross-validation procedure of tuning steganography detector are shown in Table I.

Table I. Comparing the accuracy of the original and modified neural network SRNet of steganograms detection formed according to MG algorithm.

Payload, %	Without using regularization			With using regularization		
	FAR, %	FRR, %	Accuracy, %	FAR, %	FRR, %	Accuracy, %
3	8.50	1.70	83.00	1.20	2.45	97.60
5	14.20	0.65	71.60	4.10	3.20	91.80
10	4.55	2.45	90.90	1.95	1.55	96.10
20	3.85	5.10	92.30	2.05	1.00	95.90
30	14.35	2.45	71.30	4.00	0.55	92.00
40	8.20	2.00	83.60	1.45	0.50	97.10
50	4.45	3.10	91.10	2.95	6.30	94.10

By the results of the experiment was found that the use of regularization layers in SRNet neural network allows significantly improve detection power of steganograms: in case of small payloads (less than 10%) accuracy has risen by more than 10% up to 20% in case of larger payloads.

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Session work № 5

CURRENT RESEARCH IN THE FIELD OF ENGINEERING SCIENCES

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SEPARATE COLLECTION AND DISPOSAL OF WASTE AT "KROMBERG AND SCHUBERT UKRAINE ZhU LLC"

With the growing negative anthropogenic impact on the environment, the probl em of formation, storage, disposal, transfer for disposal and reprocessing of waste as a secondary raw material at enterprises is becoming increasingly important. At the sam e time, to achieve waste-free production, the environmental protection and reduction o f waste generation in the field of industrial waste management must be effective.

In accordance with Art. 35-1 of the Law of Ukraine "On Waste" (March 5, 199 8 № 187/98-VR), owners or tenants, users, including tenants of sources of household waste, provide separate collection of household waste. This requirement of the legisla tion is more often addressed to ordinary citizens who must sort their waste. However, household waste is generated not only at homes but at the enterprise as well.

In Zhytomyr, there is a positive example of sorting waste at "Kromberg & Schu bert Ukraine ZhU enterprise". The main activity of this enterprise is manufacturing o f electrical and electronic equipment for motor vehicles. The plant has been operating in Zhytomyr since September 2015. Today there are about 4,000 employees at the ent erprise.

In total, there are more than 30 "Kromberg and Schubert" companies worldwid e today. Eight of them are in Germany. In addition, "Kromberg and Schubert" has co mpanies in Romania, Poland, Switzerland, Portugal and Mexico, which employ more than 35,000 people. The company producesequipment for the most popular European car manufacturers, such as Volkswagen, BMW, Mercedes, Audi.

The aim of the work is to analyze the separate collection and disposal of waste at the enterprise "Kromberg &Schubert Ukraine ZhU". Today "Kromberg & Schubert Ukraine ZhU" manufactures cable networks for cars and equipment for electric machi nes. The administration of the plant understands the importance of separate waste col lection in order to reduce its generation and, as a result, reduce the negative impact on the environment and human health.

The scheme of "separate collection" involves the collection and sorting of solid waste at the beginning of its formation. Storage and sorting of waste in the disposal p rocess are the most responsible stages. To do this, special containers which differ in c olor for the separation of solid waste into separate fractions are installed in the design ated areas. Rubbish is sorted at the enterprise by six types: copper wires and cables w aste, i.e non-ferrous metals; paper and cardboard; high and low pressure polyethylene ; industrial and household plastic; food waste;tape.

The plant has a specially designated workshop, where such waste as cardboard, skeins of polyethylene and even container with plastic cupsis collected. The process i s almost completely automated; waste is loaded and transported 2-3 times a week.

Employees of the company also dispose of batteries, which are first collected in a special container. Batteries, depending on their type, contain heavy metals and haza rdous elements (zinc, manganese, cadmium, nickel, lead, acids, and alkalis). In the en vironment, one finger battery contaminates 20 m3 of soil or 400 liters of water. There fore, of course, batteries cannot be thrown into the trash, they need to be collectedin s pecial containers.

“Kromberg & Schubert Ukraine ZhU” cooperates with various companies that b uy waste. The money received from the sale of waste is returned to the company and used for social projects for its employees, including excursions, chess and football sch ools for children, etc.

The company exports only 5-10% of waste to Zhytomyr city landfill for solid w aste disposal. The landfill is located near the plant on the northern outskirts of the cit y (29, Andriyivska Street). Its territory is 22 hectares.

When sorting waste, the plant complies with the requirements of the internation al standard DSTU ISO 14001: 2006. The general purpose of this standard is to promot e environmental protection and pollution prevention, taking into account socio-econo mic needs. DSTU ISO 14001: 2006 establishes requirements for the environmental m anagement system to enable organizations to formulate and implement enterprise poli cies in the field of environmental protection and to establish and achieve goals that ta ke into account legal requirements and information on significant environmental aspe cts.

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OXYGEN SENSORS IN DETERMINING THE TECHNICAL CONDITION OF THE CATALYTIC CONVERTER USING ON-BOARD DIAGNOSTICS SYSTEMS

To reduce the toxicity of exhaust gases through the reduction of nitrogen oxides and the use of oxygen to burn carbon monoxide and unburned hydrocarbons in modern internal combustion engines uses a catalytic converter. It is installed in the exhaust system of the engine and the main requirement for its successful operation is to ensure the stoichiometric ratio of fuel and oxygen in the fuel-air mixture [1].

The stoichiometric mixture is a mixture, the composition of which ensures complete combustion of fuel without residual oxygen. For gasoline internal combustion engines with spark ignition, the stoichiometric ratio is air / fuel, equal to 14.7: 1 (mass parts). For propane, this ratio is 15.6: 1. The coefficient of excess air for the stoichiometric combustible mixture is equal to one [2].

In contemporary engines, the maintenance of the air-fuel ratio close to the optimal is carried out by means of an automatic control system. The main sensor in such systems is a sensor of the concentration of free oxygen in the exhaust gases of the engine - oxygen sensor (or lambda sensor) [3].

Three-way catalytic converters (TWC) to neutralize carbon monoxide (CO), hydrocarbons (CxHy) and nitrous oxide (NO and NO_2) use two different types of catalysts: reducing and oxidizing. Both types of catalytic converter are made in the form of a ceramic structure (carrier block) coated with a metal catalyst (usually platinum or its alloy with iridium, rhodium and / or palladium). The ceramic base has a honeycomb structure, which provides an increase in the contact area of the exhaust gases with the surface on which a thin layer of metal is applied. Unburned residues (CO, hydrocarbons) in contact with the surface of the catalytic layer are oxidized by oxygen released during the NO reduction reaction and also, partially contained in the exhaust gases. As a result of the reaction, heat is released, which heats the catalyst and, thus, the oxidation reaction is activated [1].

The engine control system monitors the content of the exhaust gas flow and uses this information to control the fuel injection system. One oxygen concentration sensor is installed in front of the car catalyst (Fig. 1, it.2), ie closer to the engine than the catalytic converter itself (Fig. 1, it.1). This sensor provides the engine control unit (ECU) with information on the amount of oxygen in the exhaust. The engine control unit reduces or increases the oxygen content of the exhaust gases by regulating the amount of air entering the fuel. The second sensor (Fig. 1, it.3) is installed after the catalytic converter and provides control over the efficiency of its operation. This scheme allows you to maintain the operation of the engine on the fuel mixture with a ratio close to the stoichiometric, as well as to control the amount of oxygen in the exhaust gases required for the operation of the catalytic converter.

As a result, at the exit of the catalytic converter (serviceable) exhaust gases contain mainly N2 and CO2 - more or less harmless gases (we are not talking about greenhouse effects here).

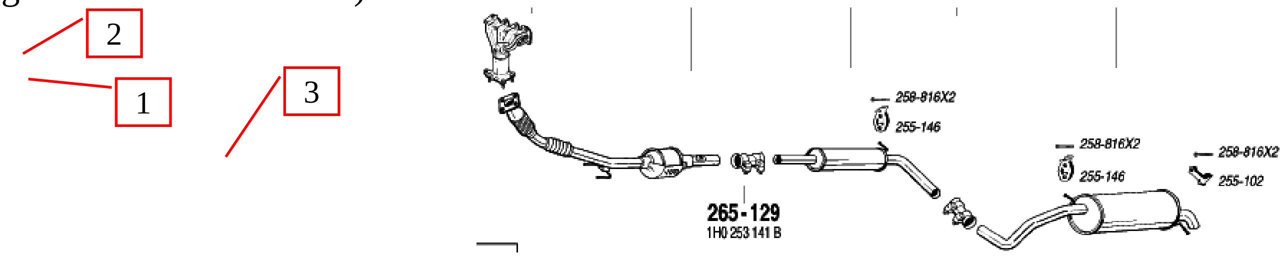

Fig. 1. Installation of catalytic converter (1) and oxygen sensors (2), (3) on Skoda Fabia, Volkswagen Polo 1.4.

The ECU in the control process compares the signals of the 1st and 2nd sensors for a given time interval, calculating the duration of the voltage signal, and if it exceeds a given threshold, the ECU of the car, interprets this as a malfunction of the converter. The limit value of the difference between the amplitudes of the front S1 (taken as a reference) and the rear S2 oxygen sensors is more than 0.7 times per minute. But the check light, which signals the error in the memory of the ECU, does not light up instantly, but only when the reduction in the efficiency of the catalytic converter occurs within 100 seconds, and the load on the engine should be from 21 to 63% when the crankshaft rotates 1,720 - 2,800 rpm, and the temperature of the catalyst exceeds 500 degrees Celsius.

As the catalyst wears (throughput), the readings of the rear sensor approach the readings of the front oxygen sensor. During the normal operation of the catalytic converter, the signal heated by the oxygen sensor at the output, switches slowly between the values of the enriched and depleted states. Frequent switching of the lambda probe between these states also indicates a decrease in the efficiency of the catalytic converter. As a result, its ability to accumulate oxygen is reduced.

The ECU will issue error code P0420, which stands for "efficiency of the catalytic converter system below the threshold level". If the vehicle is equipped with two converters at once, this error may also have the code P0430 Catalyst System Efficiency Below Threshold (Bank 1) or (Bank 2). Fault code P0420 appears when oxygen and residues of unburned fuel are detected in the exhaust gases.

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FUTURE OF INERTIAL NAVIGATION SENSORS

Inertial sensors have become a mandatory part of most electronic devices. Once being expensive and low-precisive, they have evolved and got a much higher performance and reliability at significantly reduced prices. However, each type of existing inertial sensor still suffers from different errors: either systematic or random and there is much space for advancements providing lower cost, higher precision, and size reduction. This section introduces some of the future trends in inertial sensor technologies.

Nuclear magnetic resonance gyroscope. It is based on the nuclear magnetic resonance effect – property of a particles' (kernels, electron, atom, etc.) spin to precess by a moment of angular momentum. NMR has an important advantage: it's not affected by vibrations and accelerations. For the last years, they have reached significant development of its design and implementation. Some scientists predict nuclear magnetic resonance gyroscopes to reach high levels of accuracy in high dynamic applications within a decade.

Hemispherical resonator gyroscope technology (HRG). The principle of operation is based on the precession caused by vibration on the rip of a "wine glass" shaped quartz resonator. HRG is highly reliable because it doesn't include any moving parts and consists of 2-3 pieces of machined fused quartz. It is also exceedingly accurate, compact, and has an ultra-low low angular random walk. However, HRG is exceptionally hard to manufacture, and only a few companies can produce it in series. Consequently, HRG is relatively expensive so for now it is used in specific fields, such as satellites and spacecrafts [1].

Particle Imaging Velocimetry Gyroscope (PIVG). Particle Imaging Velocimetry is a branch of fluid dynamics science in which the properties of fluids and fluid flows can be determined through neutrally buoyant tracking particles, which mimic the actual dynamics of the flow. For now, every commercially available type of gyroscopes suffers from bias instability. The main advantages of the PIVG include being nearly drift-free, a high signal-to-noise ratio (SNR) in comparison to commercially available high-end gyroscopes, and its low cost.

Cold atom inertial sensors. After decades of research in the field of cold atoms, the technology has reached a stage where commercialization of cold atom interferometers has become possible. The inertial sensors of this type are characterized by having higher performance than typical optical gyroscopes. Moreover, because of the low temperature of the trapped cold atoms, they provide a high signal-to-noise ratio and low noise measurements in general.

Micro-Opto-Electro-Mechanical-Systems (MOEMS) inertial sensors. They were born as an inheritor of Micro-Electro-Mechanical Systems (MEMS). While MEMS-based sensors include an electronic capacitive that detects the motion of an inertial mass, MOEMS combine optical effects of light interference, mechanical effects of defo rmation, and the conversion of electrical impulses into a digital code with subsequent processing and presentation in an understandable format to the user. They are proving to be an attractive and low-cost solution to a range of device problems requiring high optical functionality and high optical performance. [2]

To sum up, after reviewing some of the future trends of inertial sensors, it is not iceable that its development is aimed at the improvement of accuracy, reliability, and r eduction of size, weight, and price.

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OBJECTS OF MILITARY ACTIVITY

Since the Soviet Union time, more than 3,000 military bases of different sizes and degrees of secrecy were stationed on the territory of Ukraine. There were such bases on the territory where tens of thousands of people lived. In the context of conversion, many acute and complex environmental problems relevant to almost all former military bases located in Ukraine remain unresolved. The specifics of military activity and the military department need are still to be classified. However, not many governmental structures have known how the military bases function. As a result, there is a great number of relevant consequences happen almost everywhere after leaving the territories by the military.

I think everyone knows that every year there are many cases of finding old warehouses with ammunition from the time of World War II. For example, in Donetsk region on December 14, 2017, near Olginka, or on November 8, 2019, a WWII an ammunition depot was found near the Shuliavskyi pipeline during the engineering networks. And there are a lot of such cases throughout Ukraine, which endanger the life and health of the citizens.

There are also problems with the explosion of military warehouses in different parts of Ukraine. Over the years of independence, ammunition depots exploded more than two dozen times. The damage caused to the country's defence capability is difficult to estimate, and material losses are estimated in billions of hryvnas. The infrastructure and housing stock were destroyed as well and soldiers and civilians were killed and injured.

Basically, the main reasons for all the explosions are the following:

- Negligent attitude of the military to the norms and rules of storage of military ammunition;
- Cases of sabotage or terrorist attacks on the military units territory;
- Unsuccessful or untimely work on the ammunition destruction, which led to the ammo combustion;
- Property theft or assignment, which led to the integrity damage or fire near the boxes with projectiles.

There is also a big number of military objects on the territory of Ukraine such as military bases, towns, arsenals, weapons and fuel stores, aviation and all-military polygons, landfill and disposal of hazardous waste, former miner launchers and also radioactive ones. Most of these objects create a real and potential danger for population and environment pollution with chemicals, in particular heavy metals, enhance radiation background that leads to degradation of natural complexes.

Taking into account the urgency of such problems, the Ukrainian Ministry of Defence together with the Ministry of Ecology and Natural Resources developed the Rehabilitation Program for territories contaminated as a result of military activities of 2002-2015 approved by the government resolution in July 2001. The purpose of this document is to implement a set of measures to restore the territories contaminated by military activities and return them to the general land-use fund. In order to prevent emergencies, the Ministry of Defence has compiled a list of potentially dangerous objects and developed a Plan of measures and works on the prevention of technological emergencies at potentially dangerous objects. Today the ecological state of objects of storing strategic and operative ammunition is unsatisfying due to such reasons:

- Lack of earth shafts around rocket ammunition storage sites in many cases – 57%;
- Insufficient protection of objects of military activity against lightning – 88%;
- Poor provision of fire equipment and means of fire fighting – 68%;
- 1.4 times overload compared to established standards. As a result, some of the ammunition remains insecure from the influence of atmospheric factors:

For example, there are 45 military units of the Ministry of Defence of Ukraine on the territory of Zhytomyr region. The state control provision of nature-security activities of these objects revealed new violations of nature-security legislation requirements in 2001:

- Lack of permission for the emission of harmful substances in the air from the stationary sources (except military units A-2038, A-2365, A-1735;
- Lack of permission for the placement of waste, accounting and control of their forming as well (100% military units);

- Non-compliance with requirements for zones of sanitary protection of water intake wells (expect of A-3258, A-2038).

- Lack of permission for special water use (expect of military units A-2038, A-2365);

- Pollution of land with demolition and household waste, metal scraps, and sludge (100% of military units);

- Lack of cleaning and water recycling systems (100% of military units and education institutions);

- Lack of laboratory control of wastewater;

The other problems are the overload of sewer cleaning systems working without normative cleaning of wastewater provision, while the cleaning systems require major repairs (military units A-2038, A-2365). The lack of welding seams flow detection of the tanks in the stores of fuel and lubricants. The term of their maintenance is 20 and more years (100% of military units). Also, the lack of contracts for exporting household wastes, the absence of the pollution evaluation and accordingly payment (except military institutions) should be considered.

The issue of compliance with environmental legislation in military units subordinated to the Air Force of the Ukrainian Ministry of Defence, according to the materials of the state eco-resources department, was considered at a meeting of the Commission on Technologic and Environmental Safety and Emergencies of the Regional State Administration. According to the Commission decision on the 01.02.2001 No. 2 the attention of the commanders of military units A-3123, A-2038, A-2053 is drawn to the unsatisfactory implementation of the commission's decision and the regulations of the state department of environmental resources in compliance with environmental legislation and they are obliged to take practical measures for the elimination of the existing serious shortcomings.

The commission's decisions together with the certificate on the state affairs of military units were sent to the Deputy Minister of Defence, the commander of the Air Force of Ukraine and the military prosecutor's office for appropriate response.

Commanders of most military units of the air force of Ukraine took practical measures for the elimination of these shortcomings, such as the permissions for special water use were obtained, an inventory of stationary sources of pollutant emissions into the atmosphere was carried out and the permissions for pollutants emissions into the atmosphere were obtained, the water meters on artesian wells were installed, and the water use accounting was established.

But the next issues are still open: cleaning systems biofilters of military unit A-2038 don’t work and complex cleaning systems require major repairs. Not enough cleaned wastewater is diverted to the river Guiva. At the control check of cleaning systems the pollutants overrun from nonreactive indicator is defined and the indicator of ammonium salt is 4 times bigger than required, the indicator of biochemical oxygen using is 2.5 times higher than normal. Also, the problem of flaw detection of the tank welding seams in the stores still exists and there is no laboratory control of wastewater as well.

Due to transferring of a significant number of land (objects) in the region from the military units of the Ministry of Defence of Ukraine to local authorities (87 objects in total), the state department of environmental resources conducted a survey of these territories on their environmental condition.

Thus, after the inspection of the territory of the former military unit A-1482 of the Committee of the Border Forces of Ukraine (currently military unit A-1471), the radiation sources of 20-550 μR/h were found. According to the provided injunction, the place with this radiation sources is fenced and guarded by the departmental paramilitary guard of the military unit A-1471. The issue of the radiation sources disposal and the prescribed territory decontamination is solved. The work on the inspection of military units was carried out in cooperation with the military prosecutor's office of the Zhytomyr garrison.

The main reasons for violation of environmental legislation in military units located in the region are:

- Insufficient level of the command staff training on the environmental safety ensure of the units and institutions entrusted to them;

- Disregard by individual commanders of military units of the legal requirements of the State Department of Ecology and Natural Resources in Zhytomyr region on the elimination of violations of environmental legislation of Ukraine;

- Insufficient funding of environmental measures by the Ministry of Defence of Ukraine.

As we can see at best we have more than 3,000 environmental problems due to military activity. In this paper only some areas like Zhytomyr region with the problems of the land contamination visible with the naked eye are mentioned, but I, as a person who has lived in this country for more than 17 years, am sure that there are a lot of other problems like that that are being silenced. So, we need to understand that all objects of military activity must follow certain rules and we should be ready to deal psychologically and financially with the mentioned problems of this magnitude at the personal and state levels.

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EVALUATION OF OPTICAL PARAMETERS OF NATURAL STONE SURFACE USING INFRARED SPECTROSCOPY

Preservation and improvement of quality indicators of any product is an urgent scientific and practical problem for current production, including products from a natural facing stone. There are no similar deposits of natural facing stone in the world. Each of them is unique in its own way. However, most natural stone deposits are characterized by natural variability of quality indicators. First of all, the difference in color tone appears after stone processing.

You can use chemical impregnations, as well as various mechanical tools for grinding and polishing natural stone to align the natural stone hue.

With regard to chemical treatment, most research is devoted to study the microstructure, corrosion resistance, development of new chemical agents for the treatment and protection of natural stone surfaces, mainly carbonate composition.

Many commercial brands of chemical impregnating means do not inform about the chemical composition of these products and do not describe the effects of interaction with certain minerals and chemical elements that may occur on the treated stone surface. This treatment can result in corrosive processes that affect the natural stone stability and decorativeness. The use of infrared analysis in the study of samples treated in different ways, allows to avoid inefficient use of chemical means for impregnating the natural stone surface treatment. Also, the use of this method allows to characterize the action of certain types of chemical impregnating agents, to find the content of the main components and to obtain detailed recommendations for their use for certain types of natural stone. However, the main problem with the use of infrared analysis of the natural stone surface is to reduce the reliability of the data obtained, because the study of natural stone containing several major minerals, obtained different values of peak wavelengths associated with the mineral.

Infrared spectroscopy (IR) was performed to determine the structure of natural stone samples with different treatments. The IR spectra of natural stone samples were measured using a Bruter Tensor 27 FTIR spectrometer, scanning them in the range of 4000 to 250 cm^{-1}, using KBr in drift mode to study the change in natural stone samples after chemical and mechanical processing.

Surface reflection can be divided into two finite elements: mirror reflection of a smooth surface with high opacity and diffuse reflection of a rough surface with constant opacity. In the case of specular reflection, the surface behaves specularly, and the angle of incidence is equal to the angle of reflection, which leads to coplanar reflection. In diffuse reflection, the rays are reflected in many directions, regardless of the angle of incident radiation. Therefore, the reflected energy is propagated to a large number of light rays, which can, depending on the measurement method, reduce the absolute reflection of the signal. Most surfaces do not reflect the actual mirror and diffuse reflection, but the sum of the two finite exponents.

Volumetric scattering occurs when the surface contains significant amounts of hyperfine particles (1–20 microns), which introduce the transmission of incident rays through compressed particles. As a result, energy is lost due to partial absorption of the signal. This affects the spectral signature, which leads to changes in the shape of the spectrum. Spectral characteristics shift to longer wavelengths and spectral loss of contrast or even to spectral signatures inversion.

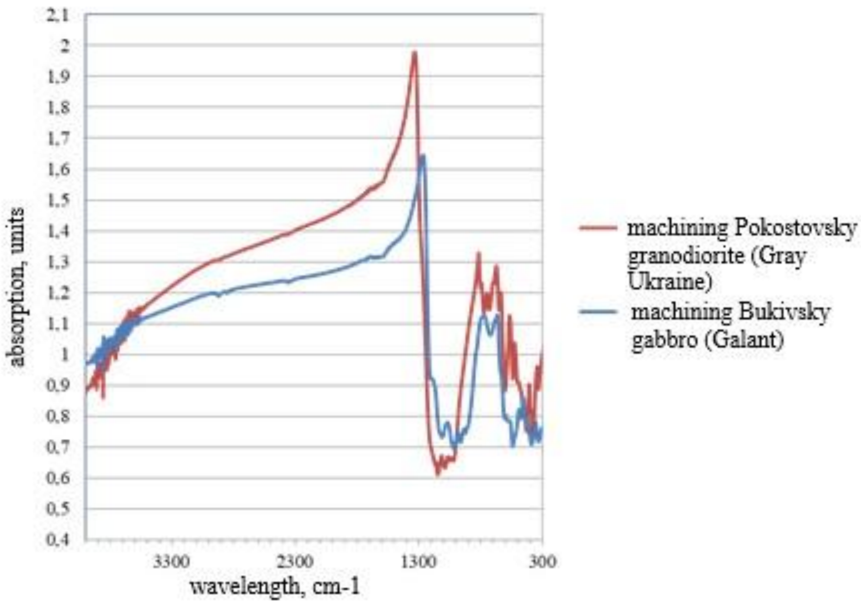
Surface cavities can capture and absorb incident rays, reducing reflection and the accompanying spectral contrast, a phenomenon known as the cavity effect. The relationship between the number of cavities on the surface and the spectral contrast is approximately linear. Factors influencing the decrease in spectral contrast are the shape of the cavity, the area of the cavity, the area of the inlet and the diffuse or mirror reflectivity of the wall of the cavity. As a rule, the higher the ratio of the depth of the cavity to the width of the entrance, the greater the effect of the cavity.

The studies show that for most materials, increasing the surface roughness leads to an increase in the number of surface cavities. The result is that cavities have the opposite effect in radiation measurements. Therefore, if the reflected energy decreases, the radiated energy increases. The Rayleigh roughness criterion can be used to characterize the surface roughness. The surface is optically smooth depending on the height of the surface topography (the difference between the deepest valley and the highest peak) and the wavelength of light and the angle of the incident beam.

For the surface roughness to influence the spectral contrast, the surface topography should be greater than the wavelength of incident light rays. Surfaces of the IR range (7–16 microns) are considered to be optically rough when the height of the topography is equal to or exceeds 1–20 microns, depending on the angle of incidence. The optical smooth surface is dominated by surface reflection, while the optical rough surfaces are increasingly affected by diffuse reflection and volume scattering.

Infrared spectroscopy is mainly used for quantitative and qualitative analysis of various substances composition. There are many obstacles to surface infrared analysis, as the properties and conditions of the test specimens must be the same. The main problem that arises when studying the surface of natural stone samples is the heterogeneity of its mineral and chemical composition, which extends to the sample area. As a result, various spectra are obtained that are difficult to identify without a previously prepared control sample. The full infrared spectrum of the surface of Pokostovsky granodiorite (Gray Ukraine) and Bukivsky gabbro (Galant) is shown in Fig. 1

Considering the full range of natural stone, we see that a large number of peaks range from 1400 cm-1 to 300 cm-1. For this reason, it was decided to consider this wavelength range to identify differences between these types of stone and to determine the natural stone processing efficiency. As can be seen from Fig. 1, Pokostivsky granodiorite (Gray Ukraine) and Bukivsky gabbro (Galant) have different infrared spectra, which is explained by the difference in the mineralogical composition of natural stone. In addition, the spectrum of Pokostiv granodiorite (Gray Ukraine) has more peaks than that of Bukivsky gabbro (Galant). This is because there are more minerals in Pokostovsky granodiorite (Gray Ukraine) than in Bukivsky gabbro (Galant). Thus, Bukivsky gabbro (Galant) consists mainly of plagioclase and pyroxene, and Pokostivsky granodiorite (Gray Ukraine) consists mainly of microcline, plagioclase, quartz and biotite. It is also common that these rocks are within the same geological zone. The rock-forming minerals of these rocks have a total wavelength. Since these rocks have one common mineral - plagioclase, analyzing the spectra of two types of stone shows the same wavelengths belonging to plagioclase (Table 1).



The spectrum of natural stone, which corresponds to a common mineral - plagioclase

Type of stone	**Wavelength, cm-1 / Absorption, units**							
Pokostovsky granodiorite (Gray Ukraine)	1112 / 0,67	1064 / 0,66	1020 / 0,65	771 / 1,13	727 / 1,14	603 / 0,88	540 / 0,92	428 / 0,75
Bukin gabbro (Galant)	1110 / 0,73	1066 / 0,78	1016 / 0,69	769 / 1,12	721 / 1,06	603 / 0,79	540 / 0,7	430 / 0,78

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USING GPS TECHNOLOGIES WHEN PERFORMING SURVEYING OPERATIONS

The development of automation of certain processes in mining took place stage by stage and from the very beginning, there were systems for controlling specific mechanisms that control the technological process.

The development of digital computing allowed to implement the algorithms of any complexity without changing the error in controlling. For some time, this was impossible by the limited scope and speed of information processing by digital computing itself. However, recently, the capabilities of this technique have increased dramatically, at the moment, there are many opportunities to use them in real time, for providing all the necessary requirements in the control system as on speed, information processing as on their reliability.

The main problem solved with the help of satellite geodetic equipment at mining enterprises is the creation and reconstruction of support and survey geodetic networks. The need for this type of work can be caused by at least two reasons. The first reason is to put into operation new industrial facilities, such as quarries, waste dumps, placers, cinder tanks, and others. The second reason is the need to reconstruct existing support networks, when some of their points were lost as a result of the economic activity of a mining enterprise, and the coordinates of the preserved points as a result of the man-made impact of mining operations on the upper part of the earth's crust have undergone significant changes.

In both cases, it is very important to choose the points of the state geodetic network to which the support survey network will be linked.

Special software for satellite technologies includes three-dimensional modeling of the quarry surface and a comprehensive system that allows logically to transfer planned projects from desk conditions to field ones.

There are the following types of work performed by the survey service to provide drilling and blasting operations:

- survey of the drilling site;
- on the basis of the approved project for drilling wells, the characteristic anchor points are placed, the baffle row is set;
- at the end of drilling, the selected wells are measured (the depth of the wells, the size of the water column, the grid of the wells).

When using GPS, the time to take a survey of the finished drilling site and design this survey for drawing up a project for drilling is reduced to several hours. The drilling passport is delivered to the drilling rig as soon as possible.

When using GPS, it is possible to take a picture of each well on the block and record the depth of the wells in the receiver for a short time. When uploading data, you save time on the block design. On average, the block takes about 25 minutes to complete.

The use of GPS technologies in open-pit mining has the following advantages:

- allows you to improve performance compared to total station survey;
- only one person can work with the kit set of this equipment;
- there is no need to center, level, or orient this receiver;
- when surveying, there is no need to ensure mutual visibility between adjacent reference points;
- the ability to quickly and accurately transmit coordinates over long distances;
- easy organization and high level of automation of work (press one button and the point is recorded)
- the ability to perform work at any time of the day and in almost any weather conditions.

Despite the obvious lag of domestic mining development technologies from the world level, at present there are all the prerequisites to eliminate this gap and implement the use of advanced technologies at enterprises.

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APPLICATION OF CHEMICAL TEST METHODS FOR DETERMINATION ANALYSIS OF HEAVY METAL IONS TOTAL CONTENT IN WATER

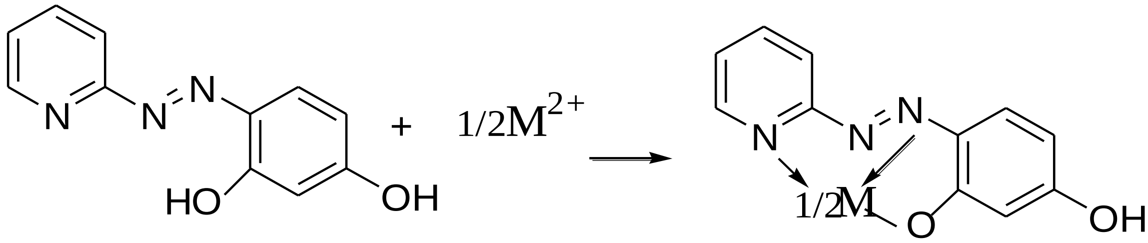
Man-caused load on the environment grows every year. One of the factors of such load is the increase in the number of domestic and industrial emissions that require their disposal. Industrial emissions include emissions from thermal power plants and various industrial enterprises. Heavy metals are especially dangerous andthey negatively impact the ecological system of reservoirs. They can be found in the wastewater of metallurgical and metalworking enterprises, galvanic shops, car companies. No matter how perfect the wastewater treatment is, a significant amount of heavy metals enters the environment.

Heavy metals are a vague group of elements with metallic properties. This group usually includes transition metals, some metalloids, lanthanides and actinides. The term "heavy metals" is used for the following elements: chromium, cobalt, nickel, copper, zinc, arsenic, selenium, silver, cadmium, antimony, mercury, thallium and lead. The environment is polluted mainly by the following metals: Cu, Fe, Pb, Cr, Zn, Cd.

Recently, there has been a tendency to analyze environmental objects in the field, that is, in the place where the object of analysis is located, and not in a stationary laboratory.

Chemical and biochemical test agents are very important for non-laboratory analysis. They are simpler and cheaper compared to mini-analyzers. Paper strips, films, indicator tubes, tablets, ampoules and other chemical analysis test instruments are becoming more and more widely used. Most test determinations are based on chemical reactions that occur on the surface of various sorbents and are accompanied by an effect that is easy to detect, such as the appearance of color or discoloration. Test analysis has many advantages: it saves time and money on the delivery of samples to the laboratory and the laboratory analysis itself reduces the requirements for the qualification of the performer.

Therefore, the reactions of heavy metals with 4-(2-pyridylazo)-resorcinol or 1-(2-pyridylazo)-2-naphtholimmobilized on a film with different sorbentsare usedto determine the total content of heavy metal ions in water. Thus, stable and accurate results are given by the method based on the reaction of complexation of metals (cobalt (II), cadmium (II), copper (II), zinc (II), nickel (II), lead (II)) with 4- (2-pyridylazo)-resorcinol (surfactant) which is immobilized in a gelatin film. The reactionbetween metal ions and surfactants can be represented as:



The same reaction can be carried out between metal ions and surfactants immobilized on the sorbent in the presence of nonionic surfactants Triton X-100 which is added to improve the wetting of the sorbent surface.

Another method of determination is based on the formation of red metal ions complexes in the alkaline environment with 1-(2-pyridylazo)-2-naphthol immobilized on paper. In this case, a color scale is obtained, which allows determining the total concentration of heavy metal ions in the control solution.

After test research it is necessary to evaluate metrological characteristics of visual analysis methods. To estimate the limit of determination (C_{lim}) using a color scale, it is necessary to experimentally find the standard deviation of the determination analysis with the concentration close to C_{lim} (S_c). The triple value of the standard deviation ($3S_c$) is taken as the final estimate. Based on this estimate, a conclusion is made about the total content of heavy metal ions in the solution.

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AUTOMATION AND ROBOTICS - GOOD OR EVIL?

First we need to know what automation is and why it is needed.

Automation is a natural process in the development of social production

In-house automation is a complex subject in its own right. Global competition is pushing it forward. Automation is the process of developing machine production, in which the control and monitoring functions previously carried out by man are transferred to machines and automatic devices.

The objectives of automation are:

1) to increase productivity and optimise equipment utilisation,

2) improving product quality through close observation of technological processes

3) ensuring of safety and improvement of working conditions

4) increase of material utilization factor

5) Reducing labour requirements and systematically increasing profits

These tasks require modern hardware and software, as well as highly skilled personnel.

The first thing that comes to mind is that automation of production is great, but is it?

On the one hand, it speeds up production several times over, but it crowds out human labour. It is worth remembering that in order to create the same robot you need several factories, thousands of employees, such as engineers, designers, programmers, assemblers and many other professions are needed here. And from the company's point of view, it is more profitable to invest a few thousand dollars and get an acceleration in production, as well as improvements in product quality. As a rule, humans make a lot of mistakes as it is inherent in us.

We use automation in our daily lives, for instance we type text on PC, laptop or phone, not by hand as our elder generation did.

A robot hoover also makes life easier, so we don't have to broom our way through the house or shovel dust by hand, and we don't have to move the sofa again to pick up the trash.

Robots everywhere?

But there are some obstacles to making such a rosy prospect a reality. While the US and Europe should benefit from such trends, China, where the population is ageing and wages are rising, is also investing heavily in robotics. China has only 30 robots per 10,000 workers, South Korea has 437, Japan 323, Germany 282 and the US 152, according to the International Federation of Robotics. It predicts, however, that as early as next year the total number of industrial robots in China will be higher than in North America. IHS Technology expects sales of robots in China to increase from 55,000 in 2014 to 270,000 in 2021.

The main use of robots.

Robots are typically used in the production of machinery, food, and much more rarely clothing.

Putting together a computer or phone processor is impossible because it is important to place it down to the nanometre, which is virtually impossible for a human to do. In the near future, robots will find their application in the military, medicine and even space exploration.

The most striking example of manufacturing automation is TeslaX.

The factory is located on a 5 million square foot area (464500 m2) - there are 3000 people and 160 robots working at the factory and the level of automation is constantly increasing - robots are installing batteries, the engine itself, the car interior, all the cables. All this makes it possible to produce around 400 cars a week. Just think about that figure of 400 cars in 7 days, how many of those eco cars could they make a year with 500 robots? Sounds good, yes it would take away a few hundred people's jobs, but it would also create new ones.

In conclusion, automation and robotics are the future, we will get more quality products, simplification of everyday life and more free time. Also, robots do not need to be paid for their work, so the price should go down, which is a good point.

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RESEARCH OF THE VALUE OF RAW MATERIAL LOSSES AND INTENSITY OF TOOL WEARWHEN PROFILING NATURAL STONE PRODUCTS

Examining the market of natural stone, we can conclude that recently, the tendency has been growing significantly to order the service of profiling when decorating stone products, designed primarily for installation as kitchen surfaces, countertops, window sills, and niche stoves. This service is most often ordered to increase the service life of natural stone products. Profiling is an effective preventive method, as it allows to remove the sharp edge from the surface of the finished product, resulting in increased decorative properties over a long service life, primarily by preventing chipping of the face of the product during its operation. Therefore, taking into account the above aspects, it is reasonable to assume that at this stage of development of the stone industry considering consumer needs, it will be relevant to study the profiling process for decorating natural stone products to establish optimal types of profiles in terms of value, labor intensity and raw material losses in their implementation [1].

The study of raw material losses and the rate of the working tool wear when performing profiling of different sizes (Fig. 1.) were performed on the basis of the company "Granitdrev". Profiling operations were carried out using a PLC-600 edging machine with a working tool in the form of diamond cutters of standard sizes, granodiorite slabs of the Pokostivskyi deposit were used as the processed products.

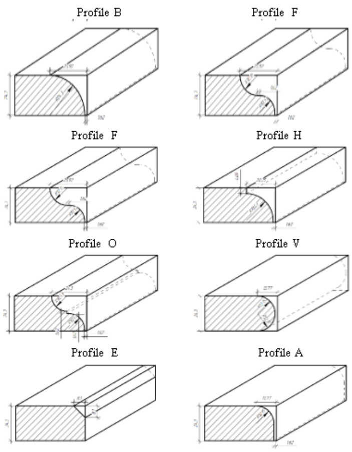

Fig.1. Types and key dimensions of the studied profiles

The determination of the amount of losses is based on the analysis of the geometric dimensions of the working tools of different types and the analysis of the linear dimensions of the workpiece plates. Therefore, the essence of this analysis was to draw the profiled products on a scale of 1:1 and determine the area of the part of the plate, which is removed during profiling. It should be noted that during the manufacture of profiles B, F, H, O, V and A there is a gap of 2 mm, which is due to the design features of the cutters. This gap provides more uniform and aesthetically pleasing appearance of the product profile. In addition, this gap increases the amount of raw material losses and reduces the service life for the working tool, so this gap should be taken into account both when building profiles and when determining the amount of losses and tool consumption. The determination of the amount of raw material losses in this study will be mainly caused by the area of the workpiece plate, which is removed during its profiling. Under normal conditions, this area can be found as the area of individual simplified geometric figures in the cross-sectional plane of the profile [2].

The process of determining tool wear is more complex, and consists not of analytical but of practical research. The essence of the study is to determine the thickness of the working layer of the tool worn over a certain operating cycle with the help of appropriate measuring instruments. The value of the working tool wear, when performing a certain amount of work is described, using a number of appropriate values, which include: the thickness of the working layer of the tool before the work cycle; the thickness of the working layer of the tool at the end of the work cycle and the actual work performed during the cycle.

The calculation of the amount of raw material losses in the process of performing the technological operation of profiling was carried out at the rate of m^3 per one running meter (Table 1.1). The basis for calculating the amount of tool wear is to compare the thickness of the working layer of the tool before the start of the work cycle and after its completion. Since each of the experimental situations had different values of the length of the work cycle, a unified value was calculated, which characterizes the value of tool wear for the same work cycle, that is, the value of tool wear per running meter was determined [3].

Table 1.1

The value of raw material losses and the intensity of tool wear when profiling natural stone products

№ з/п	Profile type	Amount of raw material losses, m^3 / m.p.	Tool wear intensity, mm / m.p.
1	Profile B	0,00025	0,21
2	Profile F	0,00050	0,22
3	Profile H	0,00029	0,17
4	Profile L	0,00018	0,12
5	Profile O	0,00045	0,25
6	Profile V	0,00016	0,18
7	Profile E	0,00005	0,10
8	Profile A	0,00011	0,17

The largest amount of raw material losses is observed during the manufacture of profiles of type F and O, namely 0.0005 and 0.00045 m^3 / m.p. Instead, the lowest amount of raw material losses is observed during the manufacture of profiles of type E and A, namely 0.00005 and 0.00011 m^3 / m.p. As for the production of profiles of type B, F, L and V, the amount of raw material losses is in the range from 0.00016 m^3 / m.p. to 0.00029 m^3 / m.p.

Based on the results obtained, it can also be concluded that the amount of losses is determined mainly by the area of the part of the plate that is removed during profiling.

The most intensive tool wear is facilitated by the use of profiles of type O, F and B, obviously, this is due to the fact that when drilling these profiles, the contact area of the cutter with the area of the workpiece plate is the largest. Accordingly, the lowest intensity of tool wear is observed when using cutters of type E and L.

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ANALYSIS OF THE CHLORIDE IONS CONTENT IN MINERAL WATER OF VARIOUS MANUFACTURERS

Water is one of the most important factors in the environment that affects all processes of the body's life. The quality of drinking water raises certain requirements, since poor-quality water can cause diseases both of infectious and non-infectious nature. It is connected with a certain chemical composition or pollution of water reservoirs by various harmful substances. Bottled mineral water has different chemical composition. To compare the ionic composition of mineral soda water, samples of different manufacturers were taken (Table 1).

Table 1

Chemical composition of mineral water samples of various manufacturers

Name of water	Indexes	Number, mg/dm^3
«Morshynska»	HCO_3^- SO_4^{2-} Cl^-	30-200 <100 <60
«Mirgorodska»	HCO_3^- SO_4^{2-} Cl^-	350-500 <50 <50
«Borjomi»	HCO_3^- SO_4^{2-} Cl^-	3500-5000 - 250-500
«Poliana Kvasova»	HCO_3^- SO_4^{2-} Cl^-	4500-8000 <25 300-600

The data show that all samples contain Cl^- and its concentration varies from 25 to 600 mg / dm^3 depending on the brand of water. Therefore, control of the chloride content in mineral waters is an actual issue.

Chlorine is needed for a normal functioning of the human body. The daily rate of chlorine is from 800 mg to 7 g (adults); for children up to one year – from 0.18 to 0, 57 g. But chlorine excess is capable of causing health problems, such as: high blood pressure, cardiovascular diseases, irritation of the mucous membranes, dry skin, and hair fragility. In order to avoid negative health consequences, the content of chlorine in mineral water should not exceed the norm, which is not more than 250 mg /l.

Today, chemical, physico-chemical and physical methods of analysis are used to determine chlorine ions in water. Namely, the definition of chlorides is carried out using the following methods: titrimetry (chemical), potentiometry, nephelometry, conductometry (physical and chemical).

Titrimetric determination is based on the formation of low-soluble sediments. The reaction should take place according to the equation. The precipitate formed should be virtually insoluble and fall fast enough. The method involves formation of of Cl- precipitation under the reaction with argentum (I) nitrate solution ($AgNO_3$). A solution of potassium chromate (K_2CrO_4) is used as an indicator. When titrating, a precipitate of argentum chloride is formed by the following reaction: $Ag^+ + Cl^- = AgCl$. When the deposition of chlorine ions ends, an excess of argentum nitrate reacts with an indicator, forming argentum chromate precipitation of orange-red color: $2Ag^+ + CrO_4^{2-} = Ag_2CrO_4$. The differences between the results of parallel definitions should not exceed 0.1%. This method gives inflated results. Thus, the definition of chloride ions is better to carry out by instrumental methods of analysis such as potentiometric titration.

Potentiometric titration under other equal conditions has a number of advantages in comparison with visual titrimetric methods of analysis. The chemical reactions used in this method meet the same requirements as in titrimetric analysis. In contrast to the described method based on the use of color indicators, the potentiometric titration method uses an electrode indicator for ions involved in indicator electrochemical reaction. The potential jump at the point of equivalence is taken as an indicator of the reaction completion. In further studies, the determination of the content of chloride ions in mineral water will be carried out with the help of the specified method.

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LIFE WITHOUT PLASTIC BAGS?

Plastic bags are convenient and reliable helpers in everyone's life, we use bags every day when we go shopping, during leisure, at work and we can't imagine how it is possible to live without this invention. When plastic entered our daily lives, it seemed like a revolution - convenient, practical and cheap.

This device has a 100-year history. The conventional packaging bag was first produced in the USA in 1957 [1] and was intended for packaging sandwiches, bread, vegetables and fruits. By 1966, about 30% of bakery products produced in this country were packed in such package. By 1973, the production of bags in Western Europe was 11.6 million pieces. In 1982, plastic bags with a handle ("T-shirts") appeared on sale in the largest shopping centers. Up to 5 trillion plastic bags are used in the world every year [2].

Bags are actively used in the food industry, medicine, construction. However, plastic bags are a danger to the environment and humanity.

Plastic bags are spread all over the planet; they are instantly carried by the wind over long distances polluting rivers, forests and mountains. Tons of plastic fall into the world's oceans every year. It is dangerous to burn such garbage. During combustion, a huge amount of carcinogens are released into the atmosphere, which pollute the air and destroy the ozone layer. Waste recycling is poorly developed. According to environmentalists, only 1 % of polyethylene on the planet is recycled.

Plastic kills 1 million birds, 100,000 marine mammals and countless shoals of fish each year [5].

6 million 300 thousand tons of garbage, most of which is plastic, is dumped into the oceans every year. Captain Charles Moore, who is involved in the sea voyages of the Marine Research Organization "Algalita" (AMRF), concluded that a quarter of the water surface is covered with floating plastic waste [5].

Naturally, package decomposes over 100 to 500 years, so if you do not reduce its production, the entire planet will be overwhelmed with used packages soon.

Various measures are taken to combat plastic pollution. A large number of countries around the world refuse using plastic package and impose fines and taxes for its use and production.

Ukraine is also struggling with this problem and going to abandon the use of packages in 2021-2022. On July 3, in Ukraine, we celebrate the Day without polyethylene; the purpose of this day is to stop using polyethylene at least for one day. However, such action could be extended for a month which could gradually stop polyethylene use.

Some tips to avoid using plastic bags:

1. Buy an eco-bag; it is stylish, fashionable and does not harm the environment.

2. Go to the supermarket with your bags (you can buy them in the store or sew yourself); remember, that one regular trip to the market "brings home" more than a dozen of disposable bags.

3. Use package several times; on average we use one package for 20 minutes but then it lives for more than 100 years on the streets, rivers and mountains. Every Ukrainian throws out about 500 packages a year. In Europe, this figure is much lower - 90.

4. Buying some products, you can refuse of the package at all; some fruits and vegetables that have their own protective shell do not need to be put into the package (bananas, oranges, tangerines, potatoes, carrots, tomatoes and many others). Also, the package is not required for milk, cheese, flour and other products that have already been pre-packaged.

5. Choose drinks in glass or metal bottles.

6. If there is a choice between buying goods in plastic packaging and ecological (for example, paper), choose the ecological option.

7. Do not take plastic bags at the checkout!

Don't be indifferent - life changes for the better today.

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DESIGN AND TECHNOLOGICAL PREPARATION OF DRIVE STAR DETAIL MANUFACTURE

The article presents the overview of the bachelor's qualification work the purpose of which is development of the drive star part design and the technological process of its manufacture using metal cutting machines, cutting tools and control devices at optimal cutting modes, with the least loss of time and with the lowest cost of processing. The object of the work is a drive star detail.

The drive star detail is made of Steel 35L; its weight is 180 kg. The purpose of the part is to drive the plate chains, which are the traction elements of the plate conveyors. Plate conveyors are widely used in all industries, including mechanical engineering. In mechanical engineering such conveyors are used to transport a variety of products.

Analysis of the manufacturability detail design is carried out on the basis of two criteria:

- by qualitative indicators
- by quantitative indicators

This part refers to bodies of rotation and has a relatively simple configuration, medium strength and rigidity. All surfaces are available for processing with a standard cutting tool. The accuracy of the surfaces location indicated in the drawing is provided by processing on metal-cutting machines of normal accuracy. In general, the design of the part is considered technological.

Steel 35L workpiece for drive star part can be obtained by the following methods:

- shell molding
- chill casting

Criteria by which the method of obtaining the workpiece is selected, were calculated for a given part. Therefore, to obtain a given part, we use the method of shell molding. After that the necessary cutting modes and time norms were calculated, as well as the technological process of machining a given part was developed.

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SHPERNER'S THEOREME

The aim of the work was to study the methods of proving the generalized Shperner Theorem, its multiset analogue, to prove partial cases of the theorem, to study the behavior of samples from the multiset.

In the course of this work the analysis of the proofs of the simple case of the Sperner Theorem was carried out, the approaches to the proof of the complicated case were proposed, the partial cases of multisets were considered, the theorem for these partial cases was proved, the generalized theorem was proved for some partial cases.

C_n^i (the number of i - element multisets of n - element multiset), developed a small program to graphically show this fact, proved the bimonotonicity of this function.

Also, in the course of this work, one of the possible applications of this theorem was considered, namely, the «Procedure for secret distribution», but the applied potential of the theorem does not end there.

Sperner's theorem in discrete mathematics describes the most possible families of Kintsev multiplies, which cannot take revenge on the other multiples in the family.

There is one of the central results in the extreme theory of many. The result of the names in honor of Emanuel Sperner, which was published in 1928 in Russian. The whole result is sometimes called Sperner's lemma, ale the name "Sperner's lemma" can also be referred to as an unsubstantiated result, and the very combinatorial analogue of Brower's theorems about a non-destructive point. For the interdependence of two results, the result for the size of the Sperner family is now more likely to be Sperner's theorem.

The number of Sperner's families on many n elements is the number of Dedekind, the first number of which:

2, 3, 6, 20, 168, 7581, 7828354, 2414682040998, 56130437228687557907788.

If you want to see accurate asymptotic estimates for larger values of n, it's unavoidable, but obviously the exact formula is that there can be many numbers of cychoristan. The choice of the family of Sperner on the set of n elements in the possible set of organizations at the view of the different rosette lattice, in which the connection of the two families of Sperner is recognized as the combination of the two set of views.

The relevance of robotics begins with the presentation of Sperner's Theorems for multi-multimedia display, so that theorems for multiple input of elements are used. By the method of bringing the theorems to the end of the day to the end of the day to bring the theorems, you can projection of these methods to bring the theorem to the table, the development of the method of bringing the theorems to the multi-multiplier to the end,

explorations - Sperner's theorem, which is used on multipliers.

Exploration method - mathematical apparatus of discrete mathematics, combinatorics, theory of many, line algebra, theory of graphs. The scientific novelty of the obtained results - the way of bringing the theorems to the multi-multiplier display is proponated.

From Hall's theorem (also like the theorem about the wall) is inaccurately valid, but whether a regular step graph is admissible without steam. The theorem is to be used on a two part graph with an endless number of peaks, for the mind, all peaks may be at the end of the day. The application of an unfinished two-part graph, for which the theorem is not valid - a straight cylindrical glass, which will be used in this way: the first part of the set of vertices is the points of the upper stub part of the bottle and the center of the lower base; the other part - the point of the lower part of the lower base; the edges of the graph are all points of the lower base and vertical lines of the surface. The basis of the Hall's theorem was used to proof the Shperner's theoreme multiset variant. The binomial coefficients also were used to proof Shperner's theoreme multiset variant.

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ONIPKO ROTOR. UNIQUE HIGH-EFFICIENCY WIND GENERATOR

About 25 years ago, the World Program of Action for New and Renewable Energy was adopted as a testament to the scientific hypothesis of the impact of greenhouse gases on global warming. Today, even children know that the use of traditional fossil energy sources (coal, oil, gas) emits carbon dioxide (CO2). By burning 1kg. of coal or $1m^3$ of natural gas, we pollute the atmosphere with 2.2kg of carbon dioxide, respectively. The danger is that it is one of the main factors of the greenhouse effect. As a result - an inevitable increase of average air temperature, decrease of glacier area and global climate change on the planet. [1, p.1]

That is why humanity is paying more and more attention to alternative energy sources. Such exhibitions where scientists present their inventions would help us to be more informed about the ways how to obtain energy from alternative sources.

Unique windmills that produce electricity even in low winds are the result of the work of Ukrainian scientist, Doctor of Technical Sciences Oleksiy Onipko. The feature of its design is the unusual shape, which provides high efficiency, making the device almost silent.

Traditional wind turbines use different blades, while Onipko’s windmill refused such a solution. The scientist proposes to use three-dimensional spirals which have different diameters and can be installed at different heights. The uniquely high productivity is the result of a non-standard shape, which the scientist calls "natural" and which is able to generate energy even in low winds, while the bladed windmills in such conditions remain stationary.

Onipko rotor

To demonstrate the benefits of the new development, the scientist installed a traditional windmill and his own wind turbine. During the operation of both devices in terms of strong winds, the blade installation produced a strong noise and completely stopped when the wind speed decreased, while the Onipko's windmill worked continuously, creating a minimum of noise. [2, p.1]

On the author's official website, you can find the following characteristics of this rotor:

- working in a range starting from 0.1m/sec, the Onipko's rotor is the only wind-driven generator that operates in areas with low wind speeds;
- the large active area provides maximum energy from minimum wind speed. The unique spiral design creates a wind cushion surrounding the rotor, increasing it's efficiency;
- the long blade surface provides an even higher efficiency with plenty of surface area for the wind to move;
- the shape of the surface is designed with millimetre accuracy for optimum results;
- the single rigid construction provides the noiseless work and an ergonomically safe design for birds;
- the Onipko's Rotor can function in areas with wind speed less than 5.6 m/sec. This wind range is globally dominant and makes up most of the Earth's surface;
- the power output from the Onipko rotor is 220V AC [3, c.1].

For his invention, the Ukrainian scientist received many awards and prizes, namely: the Leonardo Da Vinci Medal, awarded by the Association of European Inventors "AEI", the Green Oscar awarded by the International Federation of Inventors (IFIA), the Diploma of the participant "GREENEXPO / Alternative Energy" and dozens of others.

The scientist have been working on this project for ten years, and it is interesting that he began his work together with his three grandchildren. The process of making rotors is not complicated by itself, but you still need some skills. According to Onopko, even small deviations in size lead to significant losses of efficiency - a reduction of up to 30% with a deviation of 5 mm. [2, c.3].

At the moment, Oleksiy Onipko is looking for investors who would bring his invention to manufacturing on a production scale, because now you the rotors are made by his own forces.

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MAXIMUM HEAT TRANSFER CAPACITY OF FLAT HEAT PIPES WITH METAL-FIBER CAPILLARY STRUCTURE

Scientific and technological progress is characterized by the creation of new an d more advanced electronic devices of various sizes. This, in turn, leads to the need to create more powerful cooling systems capable of diverting large heat fluxes with mini mal losses. Flat heat pipes can be used as heat dissipation elements of such systems. T hey are able to cool both large surfaces, for example, in the elements of electronic equ ipment, as described in [1], and miniature devices – smartphones, tablets, laptops [2]. Due to the shape of its body, flat heat pipes fit as tightly as possible to the heat dissipa tion elements of electronic devices. Thus, the thermal resistance between the heat pipe body and the heat source is significantly reduced. However, flat heat pipes, as well as round ones, have certain limitations of their heat transfer capacity, namely:

- hydrodynamic limitation that occurs due to the excess of the total pressur e loss on the movement and evaporation of the coolant over the total capillary pressur e;
- restriction on boiling caused by the appearance of film boiling of the cool ant at certain values of the supplied heat flow;
- sound restriction caused by the blockage of the steam flow due to its appr oach to the speed of sound at the exit from the heating zone;
- restriction caused by the removal of fluid flow by the counterflow of steam.

This research studies the influence of different types of restrictions on the maximum heat flux, which can be supplied to flat heat pipes with a metal-fiber capillary-porous structure. The scheme of the experimental setup used in the series of experiments is presented in Fig. 1.

The investigated element was a copper flat heat pipe, the general appearance of which is shown in Fig. 2.

Figure 2. Flat heat pipe (photo)

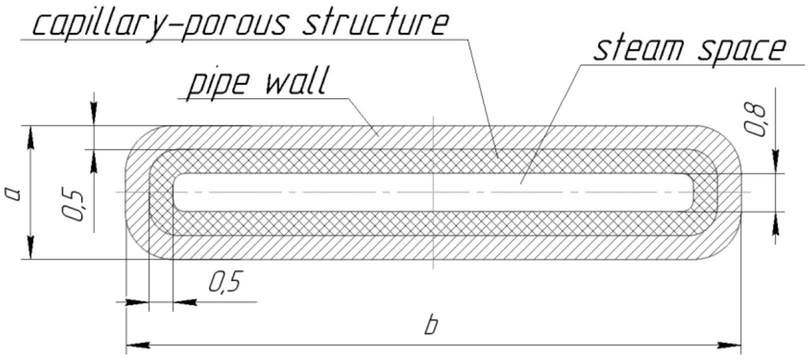
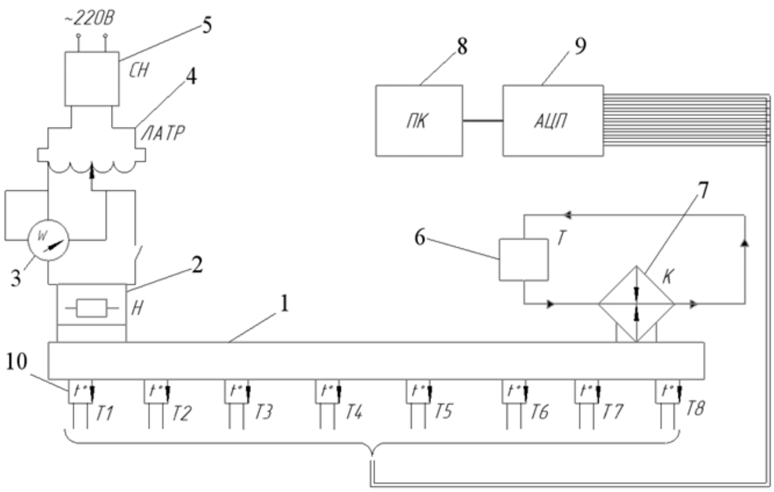


Figure 3. Cross section of a flat heat pipe (dimensions in mm)

The wall thickness of the pipe and the capillary-porous structure was 0.5 mm, the thickness of the vapor space was 0.8 mm (Fig. 3). The flat heat pipe was made by pressing from a round heat pipe with a diameter of 5 mm, a total length of 224 mm, a heating zone length of 40 mm and a condensation zone of 65 mm. The length of the fibers of the capillary structure was 3 mm, fiber diameter 50 μm, porosity - 75%.

The supply and removal of heat from the flat heat pipe was organized using a fl at heater and a flat condenser, respectively. The pipe was pressed against them, and be tween the surface of the pipe and the surfaces of the heater and condenser was a layer of heat-conducting paste to reduce the contact thermal resistance.

The research showed that in the main part of the studied temperature range the hydrodynamic constraint is the most critical and if it is not reached, in the case when the capillary pressure of the capillary-porous structure exceeds the total losses for the liquid and vapor phase, then other constraints will not be reached automatically and the efficiency of the flat heat pipe will be maintained (Fig. 4).



1 - flat heat pipe; 2 - heater in the heating zone; 3 - wattmeter; 4 - laboratory autotransformer; 5 - voltage stabilizer; 6 - thermostat; 7 - capacitor; 8 - personal computer; 9 - analog-to-digital converter; 10 - copper-constantan thermocouples (8 pieces)

Figure 1. Scheme of the experimental setup

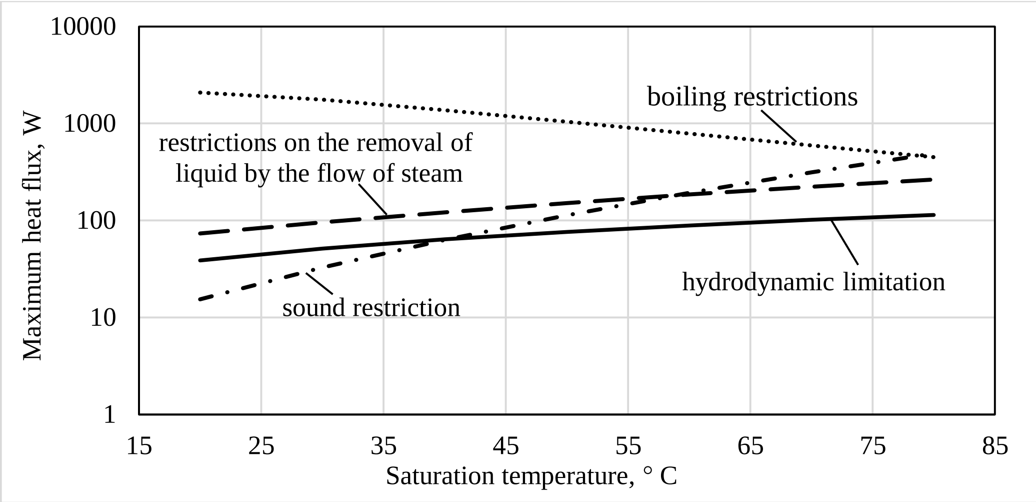


Figure 4. Existing limitations of heat transfer capacity for a flat heat pipe

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Session work № 6

CURRENT RESEARCH IN THE FIELD OF MEDICINE

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THE IMPACT OF STAKEHOLDER ON THE QUALITY OF MEDICAL EDUCATION

Admission: The role of medical education is to provide citizens with proper health care quality. In the context of growing global interest in education and health care and increasing public demand for progressive change, universities are interested in the transformation of medical education ("Strategy for the Development of Medical Education in Ukraine", 2019). At present, there is a need to revise some traditional ideas about the educational process and its technology, which allows us to bring the quality of training to the requirements of modern science and practice. Implementation of strategies and programs for the development of professional educational organizations involves active interaction with numerous organizations, groups and individuals.

The purpose of the study is to study the impact of stakeholders on the quality of medical education.

Research methods: at the level of studying the theory methods of analysis and generalization were used, and at the practical level observation and study of professional activity were examined .The research was conducted at the Nursing Department of the Zhytomyr Medical Institute.

All studies were performed in compliance with the basic provisions of the GCP (1996), the Council of Europe Convention on Human Rights and Biomedicine (April 4, 1997) and the Helsinki Declaration of the World Medical Association on the Ethical Principles of Human Scientific Research (1964-2000)., the order of the Ministry of Health of Ukraine № 281 from 01.11.2000 [1].

Presentation of the main material: the institution of higher education (faculty) should become a place of free professional discussion in order to find and form new ideas and experience. The development of medical education is an important task for students, teachers, scientists, university administrations, as well as doctors, managers, politicians. In developing of the educational institution, the development of stakeholder theory is used [2].

According to our research, the institution of higher education, as a stakeholder company, realizes its mission in the interests of all stakeholders, maximizing the effectiveness of mutual cooperation and its own competitiveness in today's worldt. In order to meet public needs and fulfill its purpose, the university should be open to dialogue, exchange information and interact with internal and external stakeholders as objects of influence on its functioning.

The purpose of stakeholders is to coordinate the activities of students, administration and stakeholder and to aim at improving and enhancing the quality of training of future professionals, the positive dynamics in quality of higher education [3].

Conclusions: To sum up, the study of the quality of medical education is based on improving the level of professional training. According to our study, the quality of medical education is influenced by stakeholders. They provide ways for improving the quality of practical training of higher education students and the necessary competencies to master innovations in health care, optimize and improve information resources, create links with potential employers etc. It is extremely important to analyze and study the impact of stakeholders on the quality of medical education because it is the key to obtaining highly qualified medical stuff.

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MODERN METHODS OF DIAGNOSIS OF BREAST CANCER IN WOMEN

Breast cancer is a malignant tumor of the glandular tissue of the breast, which is considered the most common form of cancer in the world, for it affects one of every 13 women aged from 13 up to 90 years old during life time It is also the second most common disease of its kind after lung cancer in overall statistics (including the male population) [1, p. 1].

In Ukraine, as well as in the majority of the countries of the world, breast cancer ranks 1st in the structure of cancer morbidity and mortality from malignant neoplasms in women. The incidence of breast cancer in our country increases annually by 1-2%; 6,500 new cases are diagnosed every year [6, p. 1].

Risk factors for breast cancer can be grouped into 4 main categories: family history (hereditary cancer); reproductive (endocrine system malfunctions); environmental and lifestyle risk factors (radiation, electromagnetic fields, pollution, environmental contamination); breast tissue pathology.

The tumor more often develops from epithelial cells of the ducts and/or lobes of the breast parenchyma. With age the number of cases of breast cancer gradually increases.

[16, p. 1].

The insidiousness of breast cancer, like many other types of malignancy, is that in the early stages, when treatment is most effective, the disease is asymptomatic. The general state of health remains normal, and the woman may not be aware of any potential health issues.

Breast cancer symptoms include:

- Formation in the chest, which is tactilely different from the surrounding tissues;
- Bloody discharge from the nipple;
- Changes in the shape and/or size of the breasts;
- Crusts, scales on the nipple and halo;
- The nipple, which previously looked normal, becomes sunken.

There is a type of breast cancer with atypical symptoms. It is an inflammatory breast disease of the corresponding category that causes thickening and swelling of the skin, change in its color (from normal to red/light red) and local temperature (from tactilely warm to hot) and may resemble a lemon peel in texture. The breast enlarges and looks inflamed. The affected individual is recommended to see the doctor if any alike breast alterations or seals are noticed [9, p. 1].

Diagnosis of breast cancer consists of 2 stages: primary and refined. The primary one includes visual and tactile self-examination and/or examination by doctors/ qualified specialties. A detailed history of disease and important life-related factor is composed, which is substantiated by examination and palpation. The following factors are crucial for medical history and related data collection:

- Sustained and concomitant diseases of the liver, thyroid gland, genitals and other organs and systems, which can cause a number of hormonal disorders in the body and cause tumors in the mammary glands
- Gynecological and reproductive history
- Sexual function
- Socio-domestic characteristics and professional factors

Heredity

Thus, the initial diagnosis of clinical forms of breast cancer during careful and precise interpretation of the detected changes, allows most patients with common forms of the disease to make a correct diagnosis. But in the initial forms of the disease, clinical assessment of the nature of the pathological process in the breast is difficult. In this case, the doctor comes to the aid of instrumental and laboratory methods of research, i.e. the diagnosis is clarified [6, p. 1],

- Mammography is performed on a MAMMOMAT Revelation mammogram by Siemens – one of the best and most accurate in the world. The procedure is painless, and the results are interpreted by radiologists of the highest category with specialization in mammology and mammography.
- Fine-needle aspiration and thick-needle breast biopsy under ultrasound control and/or stereotactic biopsy under mammography control are performed.
- High-quality CT and MRI are used to assess the prevalence of the disease.
- There is a specialized pathohistological center for the study of tumor samples and the establishment of the final (morphological) diagnosis and choice of treatment tactics.
- The necessary tests are performed in the laboratory, including the determination of the level of hormones and specific tumor markers [2, p. 1].

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SCIENTIFIC STUDY BASED ON THE RESULTS OF MEDICAL AND SOCIOLOGICAL RESEARCH OF APPLICANTS' LIFESTYLE DURING TRAINING IN THE INSTITUTIONS OF HIGHER MEDICAL EDUCATION (IHME) AS A RISK OF OBESITY

Topicality of our research. In recent years, the problem of overweight and obesity is becoming increasingly important [1; p.48]. In today's world, this problem has become global for today's people and is gaining turns to spread, even among countries with low living standards. So the scientist, A. Ametov, calls obesity - "epidemic", because obesity has signs of an epidemic on the scale of a socially significant problem [4; p.26]. Therefore, it is appropriate to focus on students, because this problem is alarming every three decades, because the figure doubles [2; p.21]. Motivation for a healthy lifestyle among applicants, the formation of a high level of behavior in relation to their lifestyle during education is a topical issue today [3; p.11].

Aim of research to analyze and study the lifestyle (eating behavior, physical activity, the presence of bad habits) of medical practitioners during training as a factor of obesity development.

Results and their discussion: We conducted a medical and sociological study. The study involved 200 applicants from Zhytomyr Medical Institute of Zhytomyr Regional Council (ZRC) and its separate structural unit Vocational College, aged from 15 to 52 years. Among them, 83,5% are female and 16,5% are male. The questionnaire contained three blocks of questions, each of which provided for the collection of the necessary information about the applicant, including: assessment of daily eating behavior, physical activity and compliance with the basic rules of HLS.

It should be noted that only 7,5% follow a healthy lifestyle (morning exercises, exercise, nutrition), and 65% try to follow. 31,5% rated their current health as "good", half of the surveyed applicants, and it's 55% rated their health as "satisfactory", 12% rated their health as "poor", and 1,5% as "very bad", with 32,5% of applicants emphasizing the presence of chronicity (chronic diseases), and 60% stressed the lack of genetic predisposition among close relatives and parents.

It should be noted that the applicants assess their knowledge level in relation to a healthy lifestyle - 64% have a medium level of knowledge, 33,5% - high and only 2,5% rated the level of knowledge as low, that is, summarizing the results, they indicate the students' awareness about the basic rules and principles of HLS.

The level of students' awareness about the causes of development and the consequences of overweight and obesity is also important for human health, which is quite sufficient:

- "sufficient" 52,5% (105 applicants);
- "average" 38,5% (77 applicants);
- "low" 9% (18 applicants).

The positive side is the applicants understand that obesity is a serious problem - 95%, and that only 32% have bad habits. According to the results' analysis, 13% have a level of academic success – «5»; 15,5% – have «4»; 52,5% study at «4-5»; 17% study at «4-3», only 2% have a level of success «3». As a result, most students have an average level of success, but 13% of students still have an excellent success rate.

We should focus on the following question, which was read as follows: "Were you afraid to gain "extra pounds "?", to which 49% answered «Yes» and mostly those were female respondents, 21,5% are concerned about this question only occasionally. The situation is identical with the following question, as 76% had a desire to get rid of "extra fat" on certain parts of the body.

Unfortunately, in recent decades in Ukraine the diet of the population is increasingly not in line with WHO recommendations. Rational nutrition is a necessary condition in formation the applicants' health state at all stages of their development and is one of the main factors responsible for maintaining the health of students.

First of all, the applicants answered that they try to follow the right diet - 60%, while only 8,5% gave a clear answer that they follow the diet.

After processing the data, it should be noted that almost half of the surveyed students (44%) eat breakfast before going to school. On the positive side, the applicants have a full lunch – 64,5%, and after classes they usually have dinner – 73,5%.

45,5% say that they try to follow the time schedule of meals, while 23% do not follow these rules.

No less important issue is the students'control of the food portions size during meals:

- control – 32%;
- do not control – 32,5%;
- sometimes control– 35,5%, i.e. most applicants control or sometimes control the portion size.

We found that young students prefer meat, vegetables and fruits, pasta and bakery products, i.e .carbohydrates. Only 9,5% of the surveyed students regularly eat sweets and junk food in the form of "Mivina", chips, etc. However, among the proposed options, respondents answered that the most prevalent in their diet is meat and meat products – 44,9%.

48,5% sometimes notice a feeling of "fullness" when they get up from the table after a meal, 63% say they do not overeat, and 42% consume harmful food only occasionally.

Among the factors that affect applicants when choosing food are:

- the influence of comrades' and friends' opinion - 5%;
- the influence of advertising and the media (Internet, television) -7%;
- influence of parents and family traditions - 35%;
- financial opportunities to buy food – 41,5%;
- imitation and adherence to various diets and fashionable ways to lose weight -11,5%.

The main influence on students is the financial ability to buy food, parents and family traditions, imitation and adherence to various diets and fashionable ways to lose weight, the latter is common among female respondents.

More than half of the student youth – 59,5% say that they often / constantly eat fried, fatty, spicy food. Undoubtedly, chaotic food consumption affects the occurrence of overweight and obesity during training, which is confirmed by 90% of applicants' answers.

Applicants' assessment of their own physical condition and development: 5% rated their physical condition and development as "low", 78% rated it as "average", 17% rated it as "high". Among the questions presented in the questionnaire, the question which group of physical training the respondents belong to is extremely important, so the main group includes the majority of respondents – 51,5%, which is an excellent indicator.

95% believe that with the help of physical activity, exercise they can reduce extra body weight. Also identical indicators are obtained in the next questionnaire, i.e. 95% believe that systematically organized physical activity is required for the obesity prevention.

It should be noted that 27% are dissatisfied with their own figure or body weight which makes them exercise constantly, 50% of respondents noticed the presence of breath shortness when walking fast, climbing stairs.

Conclusions. Unfortunately, today's Ukrainian student youth does not realize that proper nutrition, physical activity and the absence of bad habits are the key components of healthy lifestyle. That is why every applicant must have the necessary knowledge to rationalize and modernize the way of life. In such conditions, the problem of nutrition, physical activity of student youth in modern conditions of education becomes relevant.

It is proved that the lifestyle of a modern applicant directly affects the occurrence of overweight or obesity. However, it should be noted that the results have also positive indicators, which show the applicants' solid position in relation to lifestyle during education.

Prospects for further research. Therefore, in the future it is necessary to scientifically substantiate the promising approaches in the form of practical recommendations for applicants' lifestyle rationalization as a part of obesity prevention system.

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THE ASSOCIATION BETWEEN PSYCHOLOGICAL FACTORS AND HEALTHY LIFESTYLES CHANGES

Admission: The importance of healthy lifestyle is an essential priority of the modern world. Health is sensitive to any changes in human life and society as a whole. The state of health of young people is one of the important generalizing parameters of the nation's health and the well-being of the population. The need to preserve health and prevent its destruction requires a comprehensive study of all possible forms of implementation in the education system, the formation of a healthy lifestyle. The result of the formation of healthy habits among young people is the formation of positive motivation for a healthy lifestyle, the availability of relevant knowledge, skills, and abilities.

The aim of the study: This paper reviews evidence for the “psychosocial hypothesis” influencing healthy lifestyles changes and suggests strategies for clarifying these issues.

The research methods and material: The scientific literature and other sources relevant to a particular problem were examined and compared. A 50-item questionnaire was formulated and randomly distributed to 60 students. The suggested self-administered questionnaire included questions on socio-demography, eating habits and psychosocial factors. Based on the findings of the study, relevant interpretations were discussed and analyzed, some recommendations were suggested.

In this article we consider “psychosocial factors” to be any exposure that may influence a physical health outcome through a psychological mechanism. There are four levels of formation of the foundations of a healthy lifestyle of a young person: high, medium, satisfactory, and low. Work on the formation of a healthy lifestyle should consist of two interrelated aspects: 1) acceptance by young people of healthy values; 2) acquisition by young people of knowledge, skills, and abilities necessary for independent fulfillment of its requirements.

Scientists distinguish the concept of "health-preserving competence” as a level of medical and valeological literacy, physical, mental and intellectual abilities, state of social well-being, the degree of development of creative forces expressed in the organization of life and ecology.

Evaluation of the effectiveness of health programs for young people can be carried out on four main indicators: increasing the interest of young people to the problems of a healthy lifestyle; active participation in the health program; reduction of morbidity and risk factors; raising the level of values of young people.

Our survey has shown nearly 48.5% forget about healthy lifestyle because of feeling lonely, 28.1% felt completely upset or nervous when it comes to studies or part-time job, or family issues, 53.8% have no time to maintain healthy lifestyle, 10% are bored to keep healthy way of life.

According to the study, young people do not have a common understanding of the essence of health and a healthy lifestyle. Young people are characterized by one-sided views: not to smoke, not to use alcohol and drugs, to eat rationally, to have enough sleep, not to be nervous, to keep body hygiene, do sports. Most of them do not have the necessary knowledge, skills and abilities about the basics of health and a healthy lifestyle.

"Human health competence" is a definite level of medical and valeological literacy, physical, mental and intellectual abilities, state of social well-being, degree of development of creative forces, expressed in the organization of its vital activity, in relation to itself, other people, to ecology.

Conclusion: Work on forming a healthy lifestyle should consist of two interrelated aspects: 1) acceptance by young people of healthy values lifestyle; 2) acquisition by young people of knowledge, skills and abilities necessary for independent fulfillment of its requirements. Psychological aspects in the formation of a healthy lifestyle in youth require concerted actions from government and all government agencies. A more critical approach to observational evidence alongside further experimental evaluation of possible psychosocial intervention strategies is needed.

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ERKÄLTUNGSKRANKHEITEN – SIND GEFÄHRLICH!

Erkältung nennt man die Erkrankungen der oberen Luftwege. Dabei handelt es sich um Infektionen, die durch Unterkühlung entstanden sind. Je nach ihrer Lokalisation und ihren Besonderheit unterscheiden wir: Schnupfen, Katarrhe, grippale Infekte, Grippe und Pneumonien.

Jede Erkältungskrankheit vermindert die Abwehrkraft des Körpers und bereitet den Folgenkrankheiten, wie chronischer Bronchitis, Lungenkrankheit, Herzerkrankungen, Gelenkentzündungen und Rheumatismus den Weg.

Husten und Niesen verbreiten die Erkrankung. Auf dem Wege der Schmierinfektion überträgt der Mensch die Erreger [3, c. 98].

Zusammen mit der Luft, die man einatmet, gelangen diese Krankheitserreger in die Atemwege des gesunden Menschen und vermehren sich in der Schleimhaut. Dabei produzieren die Viren einen starken Giftstoff, das Toxin, das auf den ganzen Organismus einwirkt.

Die Erkrankungen treten öfter in den kalten Monaten auf. In dieser Periode ändern sich bekanntlich die Lebensverhältnisse. Im Winter hält man sich mehr in geschlossenen Räume werden auch nicht so gut durchlüftet. Verschiedene Erkältungserkrankungen lösen stabile Störungen in der Regulierung der Körpertemperatur aus und schwächen die Widerstandsfähigkeit gegen die Viren ab.

Die Unterkühlung des Körpers mindert dessen Abwehrkraft und trägt somit wesentlich zur Entstehung einer Erkältungsinfektion bei. Um die Unterkühlung zu verhindern, muß man der Körper abhärten.

Um den Körper zu tranieren und damit den Erkältungskrankheiten vorzubeugen, muß man Sport treiben. Um die Wiederstandsfähigkeit des Körpers nicht zu vermindern, muß man genug schlafen. Jedoch ist stets auf eine laut der Altersstufe entsprechende Schlaudauer größter Wert zu legen [4, c. 45].

Bei Niesen und Husten soll man ein Taschentuch vorhalten und sich von anderen Personen abwenden, um sie nicht anzustecken. Ein Erkälteter, der nicht vorsichtig ist, kann viele Personen anstecken [2, c. 289].

Heute besonders gefährlich ist Coronavirus. Diese Erkrankung sieht wie Grippe, aber es geht schneller. Covid-19 steckt Luftwege und Lungen an. Die häufigsten Symptome von Covid sind Fieber, Müdigkeit, allgemeine Schwäche und trockener Husten. Der Patient kann über Kopf- und Muskelschmerzen, laufende Nase, Halsschmerzen oder Durchfall klagen[1, c. 194].

Manche Menschen infizieren sich ohne Symptome und füllen sich nicht schlecht. Wenn Sie diese Symptome auftreten, konsultieren Sie sofort einen Arzt. Um Sie zu schützen, sollten Sie Schutzmasken tragen, Hände desinfizieren und Abstand halten [5, c. 101].

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MODERN METHODS OF DIAGNOSING DISEASES OF THE CARDIOVASCULAR SYSTEM

According to the World Health Organization, diseases of the cardiovascular system cause more than half of all deaths in the world, also these diseases account for a third of causes of disability and claim 17.5 million lives each year. These findings are based on an investigation of GBD (Global Burden of Disease) for 2019 year. The burden of cardiovascular disease has continued to rise for decades in almost all middle- and low-income countries. It is also alarming that the age-standardized rate of cardiovascular disease has begun to rise in some high-income countries, where it has previously declined. Global Burden of Disease measures the burden of health problems among the population in 196 countries, including Ukraine. It is the most comprehensive comparative health study, covering 286 causes of death, 369 diseases and injuries, 87 risk factors in 204 countries since 1990. The study is a systematic scientific effort to quantify the loss of health from disease, injury and risk by age. Coordinated by the Institute of Health Metrics and Evaluation (IHME). [1, c. 70]

Cardiovascular diseases are a group of diseases of the heart and blood vessels, namely: coronary heart disease - a disease of the blood vessels that supply blood to the heart muscle; cerebrovascular disease - a disease of blood vessels that supply blood to the brain; peripheral artery disease - a disease of blood vessels that supply blood to the upper and lower extremities; rheumatic heart disease - damage to the heart muscle and heart valves as a result of a rheumatic attack caused by streptococcal bacteria; congenital heart disease - existing from birth deformities of the heart; deep vein thrombosis and pulmonary embolism - the formation of blood clots in the veins of the legs, which can move and move to the heart and lungs. Among the diseases of the cardiovascular system, the most common cases are hypertension, coronary heart disease, myocardial infarction and stroke, atherosclerosis, and rheumatic heart disease. [2, c. 58]

Cardiovascular diseases are diagnosed using an array of laboratory tests and imaging studies. The primary part of diagnosis is medical and family histories of the patient, risk factors, physical examination and coordination of these findings with the results from tests.

• Electrocardiogram (ECG). This test records the electrical activity of the heart, shows abnormal rhythms (arrhythmias), and can sometimes detect heart muscle damage.

• Stress test. This is also called a treadmill or exercise ECG. This test is done to monitor the heart while you walk on a treadmill or pedal a stationary bike. Your doctor also monitors your breathing and blood pressure. A stress test may be used to detect coronary artery disease, or to determine safe levels of exercise after a heart attack or heart surgery. This test can also be done using special medicines that stress the heart in a similar manner as exercise does. Sometimes a stress test will collect ECG information along with heart ultrasound pictures. This is called an exercise or stress echocardiogram. It is more sensitive and specific than ECG stress testing alone.

• Transthoracic echocardiogram (echo or TTE). An echo is a noninvasive test that uses sound waves to evaluate your heart's chambers and valves, and how well it pumps. The echo sound waves create a real time image on the monitor as an ultrasound probe is passed across the skin over your heart.

• Coronary Angiography and Cardiac Catheterization. This test is an invasive test. A dye is injected into the veins to reach the coronary arteries. This is done via coronary catheterization. Thereafter detailed pictures of the blood vessels of the heart are taken using special imaging methods. This is called coronary angiography. Cardiac catheterization involves threading of a thin, flexible tube called a catheter via a blood vessel in the arm, groin (upper thigh), or neck. The tube is inserted under imagine guidance till it reaches the heart. Coronary angiography detects blockages in the large coronary arteries.

• Chest X Ray. This is a test that shows the shape and size of the heart lungs and major blood vessels. This is a test seldom used in diagnosis of heart diseases as it does not provide added information over echocardiography and other imaging studies.

• Electron-Beam Computed Tomography or EBCT. EBCT helps to detect the calcium deposits or calcifications in the walls of the coronary arteries. These are early markers of atherosclerosis and coronary heart disease. This is not a routine test in coronary heart diseases.

• Cardiac MRI. Cardiac MRI (magnetic resonance imaging) that uses radio waves, magnets, and a computer to create pictures of the heart. This gives a 3D image of the moving as well as still pictures of the heart.

• Tilt table test. Your doctor may perform a tilt table test if you've fainted. They'll ask you to lie on a table that moves from a horizontal to a vertical position. As the table moves, they'll monitor your heart rate, blood pressure, and oxygen level. The results can help your doctor determine whether your fainting was caused by heart disease or another condition.

• CT scan. A CT scan uses multiple X-ray images to create a cross-sectional image of your heart. Your doctor may use different types of CT scans to diagnose heart disease. For example, they may use a calcium score screening heart scan to check for calcium deposits in your coronary arteries. Or they may use coronary CT angiography to check for fat or calcium deposits in your arteries.

• Heart MRI. In an MRI, large magnets and radio waves create images of the inside of your body. During a heart MRI, a technician creates images of your blood vessels and heart while it's beating. After the test, your doctor can use the images to diagnose many conditions, such as heart muscle diseases and coronary artery disease. [3, c. 130]

The ways doctors diagnose heart disease can vary quite a bit, depending on which kind of heart disease we're talking about.

When a patient complains of symptoms that may suggest a heart or blood vessel problem such as shortness of breath, chest pain, chest pressure, heart palpitations, dizziness, sweating, numbness and weakness the health care team will run a variety of tests to diagnose and screen for cardiovascular conditions. Usually, diagnosing a heart problem requires a combination of blood tests, heart monitoring and imaging tests. Cardiovascular diagnostic and screening tests can provide a wealth of information about the electrical activity of the heart, heartbeat rhythm, how well blood is pumping through the heart's chambers.

In conclusion, *everyone needs to know and be able to timely recognize the signs of heart attacks and strokes that require emergency medical care, which occur suddenly, at any time of day and in different situations.*

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BE ABLE TO FEEL AGAIN

Hand transplant is a treatment option for people who have had one or both hands amputated. In a hand transplant, one or two donor hands and a portion of the forearms are received from a person who has died. Hand transplants are specialized procedures performed in only a few transplant centers worldwide.

Although not guaranteed, a hand transplant may help to regain some hand function and sensation. While a hand transplant can improve the quality of life, it is a lifelong commitment to treatment. Special medications (immunosuppressants) are to be taken and routine physical therapy and doctor appointments to check on the condition of the donor hands are to be implemented.

The roots of limb transplantation date back to the fourth century when twin saints Cosmas and Damian described the transplantation of a cadaveric leg, replacing a cancerous one. It highlighted early human longing for successful limb transplantation.

In 1964 the first hand transplant was attempted by surgeons in Ecuador, without the benefit of modern immunosuppression. The allograft was rejected within several weeks. Attempts continued subsequently in laboratories but a human hand transplant would not be attempted again for another 34 years, until 23 September 1998 in Lyon. The recipient was a 48-year-old man who had lost his right arm in a saw accident four years earlier. The operation was initially successful but the patient suffered multiple episodes of rejection, became disassociated with the grafts, non-compliant with immunosuppression and ultimately requested graft removal in 2001.[1]

A hand transplant is performed in selected cases in an attempt to improve quality of life and to give some function and sensation to new hands. Hand transplantation is an option available for patients with amputations or injuries of the arm or hand. This includes military personnel returning from active duty. Regaining an arm or hand can vastly improve the quality of life of a patient, allowing them to continue doing daily tasks that they may not have been able to do before.

Patient Eligibility. A number of considerations is determined for the suitable candidate to get hand transplantation. In addition to several screening tests, the following listed factors are to be considered:

- Patients should be between the ages of 18 and 60.
- Patients should have had amputations performed at least six months prior to consultation; during this time, prosthetics and rehabilitation must also be considered before considering transplantation.
- Patients should have no history of malignancy within the last 10 years.

- Patients should have no co-existing medical conditions that may affect results such as Diabetes or bleeding disorders.
- Patients should have no congenital anomalies causing loss of limb
- Women who are pregnant will not be considered, and agree to take reliable contraception for 1 year following transplantation.
- BMI should be less than or equal to 35.

What is a hand/arm transplant surgery like?

The human hand consists of 27 bones, 28 muscles, 3 major nerves, 2 major arteries, multiple tendons, veins and soft tissue. Hand transplant surgery is complex and can last from 8 to 10 hours. It involves bone fixation, reattachment of arteries and veins and repair of tendons and nerves.

Patients waiting for a hand donation can be called into the hospital for surgery at any time. After surgery the patient will be placed in a surgical intensive care unit (SICU) for several days. Once the surgical team feels comfortable to move the patient out of the SICU, the patient will be moved to a transplant unit, where the expected duration in the hospital is from four weeks to three months. The amount of time spent in the hospital depends on a number of factors, including the amount of support and assistance the patient has at home, as well as the distance from home to the hospital for follow-up care, and any delays that might occur in recovery.[2]

Rejection of a donor hand happens when the body's immune system treats the donor hand as foreign to the body. Like invading viruses or bacteria, the immune system will then try to destroy the donor hand. Rejection can happen in two ways:

Acute rejection. Acute rejection happens when the immune system tries to quickly destroy the tissues in the donor hand. It can also happen when the immune system sends special proteins (antibodies) to attack blood vessels and tissues in the donor hand.

Acute rejection usually can be controlled with medications, but in rare cases, the donor hand or hands have to be removed. A previous acute rejection doesn't disqualify the patient from having another hand transplant, but it may make it more difficult to match the patient with a donor.

Chronic rejection. Chronic rejection happens over a longer period of time. The hand transplanted may become painful and lose function. The patient may notice a loss of hair on the hand transplanted or changes in fingernails.[3]

The patient will be taught to watch for early signs of rejection. The patient has to report any changes in the appearance or sensation in the hand to transplant team. If the transplant team suspects the body is rejecting the donor hand, the patient may need to begin taking more anti-rejection medications. The transplant team will likely order tests to be done on the hand transplanted, including a biopsy of the tissue in the donor hand.

Immunosuppressants are medications to be taken to prevent the body from rejecting the donor hand or hands. Immunosuppressants are powerful medications that need to be taken for the rest of the patient’s life. Major side effects of immunosuppressants are the following:

- Increased risk of serious infections, including cytomegalovirus (CMV)

- Increased cancer risk
- Kidney damage
- Increased risk of developing diabetes
- Osteoporosis
- Increased cholesterol, increasing the risk of heart disease[4]

Potential benefits. In solid organ transplantation (SOT), such as liver or heart, transplantation is essential for life. Function is defined by the physiological and biochemical properties of the organ. Surgeons rarely hesitate when discussing these operations. However, in the case of hand transplantation, the patient will survive without the transplant and so the operation is not lifesaving. In fact, undergoing the operation has risks associated with it, which can increase mortality.

While the procedure does not increase quantity, there is a potential increase in quality of life. As a result, hand transplantation has been noted as a life giving/improving procedure. This perceived improvement in quality is a highly subjective measure and a new hand can mean different things to different people. Since the only measure is quality, many doctors argue that the risks of the operation are not justified by unquantifiable.

How many total hand/arm transplants have been performed worldwide? More than 85 patients have received hand/arm transplants at institutions around the world. The longest surviving hand/arm transplant is the first U.S. recipient at 11 years.

Conclusion. Thus, a hand transplant can give hope for a full life for the person with lost limb.[5]

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THE IMPORTANCE OF TEACHING SEXUALITY EDUCATION AMONG STUDENTS

The purpose of this study was to prove the need to teach a subject such as sexuality education. The World does not stand still and everything in it develops to become more modern. Children have become modern, as well as adolescents who believe that they are ready to engage in sexual relations. The own problem is that sexual relationship is not just sex. Sex is not only a pleasure but also a responsibility. Students of high school and also students know about sex education is only thanks to films from the USA.

Unfortunately, the school curriculum does not provide for an additional subject that would tell much more information about sex and its consequences.

The modern rhythm of life and new norms and standards of behavior of society are the cause of changes in the behavior of young people. The most significant changes are the physiological and psychological killings of adolescents, who have recently begun to outpace the previous generation.

To understand the need to prevent many diseases, young people need to be encouraged to know the etiology of many sexually transmitted diseases, lectures, and communication with parents, teachers, and health professionals to understand the dangers of consequences and unplanned premature pregnancies. Prevention of early sexual intercourse is not just about sex, it is first of all knowledge about the structure of one's own body, which needs to be explained and taught to children and adolescents, and so on.

A survey of students was conducted, which was agreed with the child school psychologist and social educator.

The survey of students was anonymous and took place in Google forms, where there were no teachers and people who could influence the results. Besides, among students, only condoms were mentioned among contraceptive methods, and there is also a low percentage of questionnaires where the field on contraceptive methods was empty.

In Ukraine, there are no targeted programs in educational institutions. However, in some countries, there are strategies for implementing youth sex education programs and the first steps in their implementation. Education, however, offered in educational institutions is focused on covering the problems of risks associated with sexual life, including unwanted pregnancies and sexually transmitted diseases. This orientation does not contribute to the interest in obtaining more information and skills development from young people, in addition, their dissemination or promotion faces the problem of parental dissatisfaction with the study of children's sexual topics.

A comprehensive program approach based on understanding sexuality as one of the human potentials will enable young people to expand their capabilities and skills and define their sexuality to create harmonious relationships with other people, for harmony with themselves, and as a result of skills capable of distinguishing themselves and others from possible risks.

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PHYSICAL CULTURE AS A DETERMINANT COMPONENT OF A HEALTHY LIFESTYLE FOR STUDENTS OF HIGHER MEDICAL EDUCATION

Topicality. Today, the modern student youth of Ukraine is the gene pool of the nation, the foundation of cultural, intellectual, scientific and physical activity of our country [4]. In recent decades, there has been an alarming trend of deteriorating health and fitness of the population of Ukraine. This is due not only to the problems of economics, ecology, but also to the underestimation in society, institutions of higher education of the role of physical education in the process of forming the skills of a healthy lifestyle of student youth [2].

According to the latest scientific data, up to 90% of applicants have health problems, more than 50% are registered at the dispensary and are assigned to a preparatory, special medical group or are fully exempt from physical activity due to their health condition. Over the last decade, the prevalence of cardiovascular pathology, cancer - by 18%, bronchial asthma - by 35.2%, diabetes - by 10.1%, almost every fifth applicant suffers from hypertension and vegetative -vascular vascular dystonia [3].

The level of more than 70% of student youth in our country does not meet even the average level of the state standard of physical fitness, which poses a real threat of degeneration and extinction of the people of Ukraine. In this regard, Ukrainian society makes new demands on the system of education and upbringing of student youth in general, and especially future health workers [1].

The purpose of the study is to theoretically substantiate and determine the level of development of students and the impact of physical culture and nutrition on their success and performance.

Research methods. Methods of system analysis, logical generalization and medical and sociological research were used for this purpose.

Results and discussion. As a result of the sociological study substantiated and confirmed the negative impact on the success and efficiency of students, lack of physical activity, including physical education, failure to follow proper eating habits and ignorance of the basic principles of a healthy lifestyle in general.

Having studied and analyzed the state of the studied students' attitude to physical education classes, more than half of the respondents, 87 people (54.4%) like physical education classes, 60 applicants (37.5%) attend classes on educational needs, which evidence of disinterest, there are those applicants who do not like physical education classes, but such applicants are not many, only 13 people (8.1%).

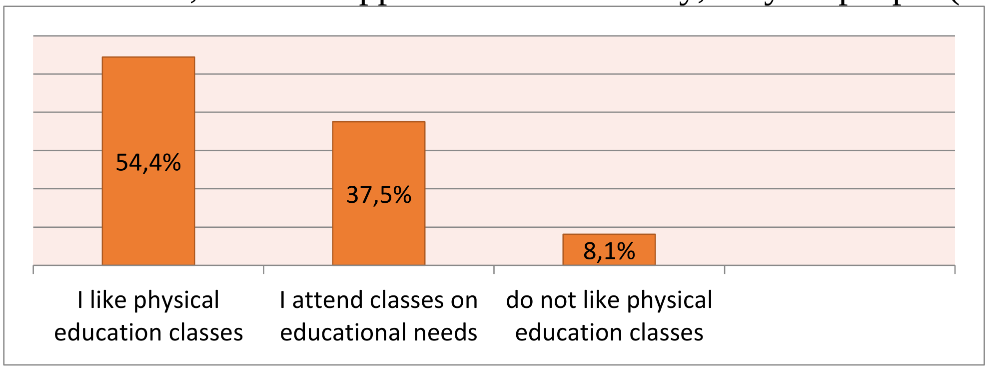

Fig.1 Distribution of applicants' answers to the attitude to physical education classes

Regarding the observance of a healthy lifestyle by applicants (performance of morning gymnastics, hardening, observance of rational, high-quality and healthy nutrition): only 25 people (15.6%) adhere to a healthy lifestyle, which is a disappointing indicator; 93 people (58.1%) try to follow; almost half of the respondents do not follow the basic rules of a healthy lifestyle at all - 42 people (26.3%).

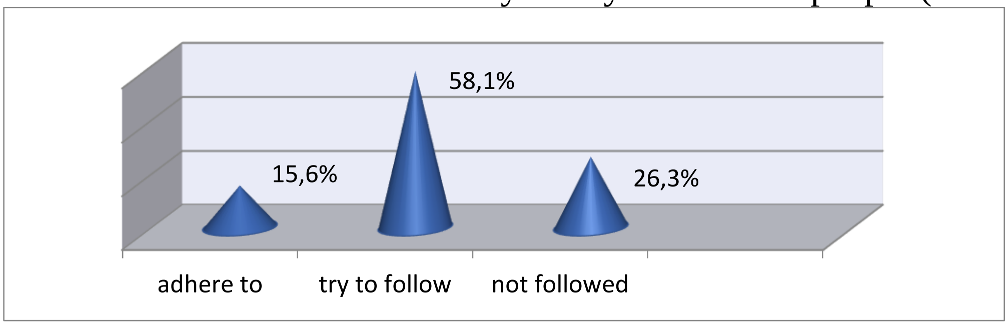

Fig.2. Distribution of applicants' answers regarding their compliance with the HLS

The data of the diagram (Fig. 3) show that the majority of respondents 87 people (54.5%) see the dominant motivation for physical activity, the desire to improve the figure, posture, lose weight, build muscle mass; 25 people (15.6%) - as a result of physical education they want to improve and strengthen their health; 13 people (8.1%) - desire to play and move; only 9 people (5.6%) aim to develop physical qualities, master various motor skills and abilities; the desire for emotional relief, receiving positive emotions, communication, maintaining a good mood, excitement is the dominant motivation of 20 respondents (12.5%); 1 person (0.6%) seek to imitate a famous person, relative, friend; 5 people (3.1%) as a result of physical education assert themselves and develop their moral and volitional qualities.

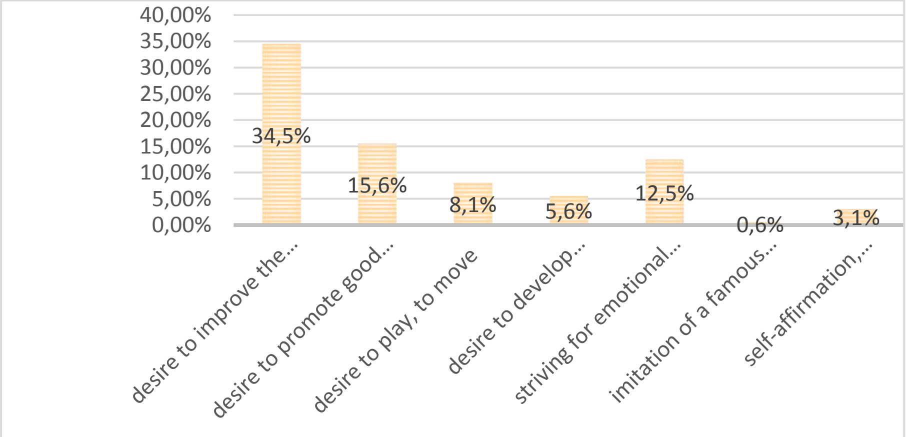

Fig.3. Distribution of respondents' answers on the dominant motivation for physical education

Among the reasons why applicants do not engage in physical culture, the answers were distributed as follows:

- they believe that sport is a useless occupation - they did not choose this answer

no respondents testifying to their balanced position on the place of sports in life and healthy people;

- lack of conditions in the institute for sports - 7 people (4.4%);
- lack of information on where in the institute you can play sports - 3 persons (1.9%);
- lack of free time - 61 people (38.1%);
- lack of support from friends - 1 person (0.6%);
- the impact of harmful companies - 1 person (0.6%);
- inability to force themselves to increase motor activity, overcome laziness - 19 people (11.9%);
- a large amount of the curriculum - 22 people (13.8%);
- incorrect priorities - 6 people (3.7%);
- fatigue, laziness, unwillingness to engage - 26 people (16.2%);
- lack of skills and habits - 6 people (3.7%);
- lack of funds for logistics for full-fledged classes - 8 people (5%).

Conclusions. According to the results of medical and sociological survey of applicants, it is clear that the lack of physical activity and streamlined diet and quality of food directly affects the level of success of the applicant and his ability to work while studying in higher education.

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THE ROLE OF A NURSE AS A MEMBER OF A MULTIDISCIPLINARY REHABILITATION TEAM

Relevance of research. In the conditions of hostilities, the rehabilitation of servicemen is of national importance and is an important component of the country's defense capabilities.

The nurse is one of the main organizational and medical units at all levels of the rehabilitation process.

Working in a multidisciplinary team, the nurse not only performs the actual nursing manipulations, but also is the coordinator of other professionals and performs social rehabilitation functions.

The aim of the study. Develop and theoretically substantiate the organizational model of physical rehabilitation (physical therapy, occupational therapy) to ensure quality medical rehabilitation of combatants.

Research methods. To achieve this goal, bibliosemantic, medical-sociological, medical-statistical research methods were used among 90 subjects (60 patients and 30 nurses). The research was conducted during 2020 – 2021 on the basis of Zhytomyr Basic Military Hospital.

Results and discussion : As a result of the conducted sociological research it is substantiated and confirmed that participants of hostilities belong to a special contingent of patients who demand application of specially developed, in some cases even individual system of medical – rehabilitation measures. Successful recovery of a wounded soldier by 80% depends on the effectiveness of this process.

The purpose of medical rehabilitation of combatants is to provide appropriate conditions for the restoration of lost body functions and the development of compensatory properties of the body and adaptation to conditions in everyday life and work. [1, p. 14]

The form of activity of the multidisciplinary team is a meeting of all members (doctor, rehabilitation specialist, physiotherapist, psychologist, nurse), during which an individual rehabilitation plan is developed based on the results of the rehabilitation examination, the results of monitoring and evaluation of the intervention plan are considered. [2, p. 419]

At the initial (inpatient) stage of rehabilitation, the nurse spends more time with the patient – a participant in hostilities than the doctor and performs medical appointments and rehabilitation, according to the established individual program, thus providing medical rehabilitation and treatment of disease. [3, p.16-17]

The role of a nurse as a member of a multidisciplinary rehabilitation team at different stages of inpatient rehabilitation:

I stage: expert diagnosis: detection of the underlying disease – the nurse performs all prescribed by the doctor examination to confirm the diagnosis;

II stage: prognosis – the nurse, using the data obtained during the nursing examination of the combatant and entered in the «Nursing History of Health», participates in assessing the rehabilitation potential of the combatant and determining the achievement of rehabilitation goals and drawing up an individual rehabilitation plan.

III stage: the nurse participates in the formation and implementation of rehabilitation goals, organizes the necessary care and monitors the state of vital functions of the body, to meet physiological needs, meet security and social needs, prevents complications that may occur during the process rehabilitation, provides emotional support to the combatant and his relatives.

IV stage: control and evaluation of the effectiveness of rehabilitation – reports on changes in the general condition of the patient, the elimination of problems that were present in the assessment of rehabilitation potential and reports on the effectiveness of the rehabilitation process according to the combatant (using a questionnaire he filled out).

Conclusions: The research proved the role of the nurse in the rehabilitation process, because the nurse is one of the main organizational – medical units at all the most important levels and areas of the recovery process. The nurse plays a significant role in the rehabilitation process of combatants, performs doctor's appointments and teaches patients – combatants to follow the recommendations, organizes a comfortable rehabilitation process of combatants and is an important member of the multidisciplinary team.

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THE IMPACT OF INDIVIDUAL FEATURES OF BEHAVIOR ON THE FORMATION OF A HEALTHY LIFESTYLE AMONG INDIVIDUALS WITH DIFFERENT LEVELS OF EDUCATION

Topicality of our research. Maintaining appropriate health level through a healthy lifestyle should be the main goal of every individual. First of all, "*health*" is identified as the main and the most important possession of any human being, which determines his/her ability to work, achieve success and ensure the harmonious development of personality [1; p.48].

Scientifically health is defined as a state of complete harmonious development of the organism in which all vital functions are normally performed [2; p.46]. In Ukraine the issue of forming a healthy lifestyle of students and the nation as a whole is the most pressing issue in terms of public health at the present stage of its development [3; p.184].

Aim of research is to analyze the individual peculiarities of behavior of individuals, which meet the qualificative requirements of our research, and scientifically substantiate the formation of medical students' formative principles of a healthy lifestyle in the process of obtaining different educational levels.

Results and their discussion: We conducted a survey of 150 students of the Zhytomyr medical institute of Zhytomyr regional council, including the vocational college. Among respondents 85.3% of the interviewed were females and, respectively, 14.7% of the surveyed were males; the age of respondents ranges from 15 to 48 years; statistically, the age of the students who participated in the experiment varied in the following ration: 17 years – 21.3%, 18 years – 14%, 19 years – 13.3%.

Also, the level of education of the surveyed was the following: junior bachelor (58.7%); bachelor (20%); master’s degree (21.3%).

The highest priority values of life, which occupy a prominent place in the lives of students, is indicated in the following way: 37.3% chose a family as the priority; 30% highlighted their health; 18% preferred freedom, which is manifested by independence and autonomy; for 10.7% the priority is materially secure life; the last positions in priority are occupied by: social acknowledgement (respect of the peers) – 2%; entertainment (pleasant lifestyle with minimal responsibilities) was chosen by 1,3% of respondents; friends and acquittances occupy prominent place in the lives of 0,7% surveyed.

The preservation of health is directly influenced by various factors. According to the students, the most important health-impacting factor is the observance of the customs and rules of a healthy lifestyle – 68%; 7.3% believe that the level and availability of medicine and medical care is of major importance, and 10.7% are inclined to believe that the ecological state of the environment affects the preservation of health; only 4% identified genetic heredity as the crucial factor of health status' changeability. It is important to emphasize that 48.7% of respondents claim that they lead a healthy lifestyle only occasionally; 13.3% do not stick to the rules of HLS at all; 16.7% of participants find it difficult to answer this question, and only 21.3% say that they lead a systematic healthy lifestyle.

The main motive for leading a healthy lifestyle for students is the desire to be healthy and strong (33.3%); 14% surveyed see it as the means to succeed in many areas of life; 26.7% of respondents exploit it to amplify sense of confidence and emotional well-being; 26% of individuals identify HLS as the way to become spiritually rich and healthy person.

In addition, among motivational factors for a healthy lifestyle, according to students, prominent place is given to willpower – 70.7% of respondents chose this option; 13.3% claim that the availability of financial resources plays an important role; others emphasize the need for certain skills, abilities (9,3%) and the availability of relevant knowledge (6.7%). Quite often the opinion of the acquittances, family, role models is taken into consideration – 72% of students supported this idea; the attitude of 18% Respondents' health is directly influenced by the media, while 5.3% are impacted by peers and friends; 4.7% of participants require a piece of advice from their teachers.

It should be noted that more than half of the respondents (65.3%) rated the level of their awareness of possible negative impacts on their health as "medium"; 28% said that they have a "high" level on the main issues of healthy lifestyle; 2.7% identified their level of awareness as "low"; 4% did not provide a clear answer, as this question was "difficult to answer". It is important that students rate their physical condition and development, so 2.7% rated their overall physical parameters as "low"; 72.6% rated it as "medium"; 20.7% identified it as "high" and 4% chose "difficult to answer" option.

Only 13.3% of surveyed follow a proper daily routine; moreover, 35.4% of students have bad habits that can harm their health; 48.7% have a negative attitude towards smoking, 56.7% of students (more than half) noted about the neutral attitude towards alcohol use; positive indicator is that students have a negative attitude towards the use of various drugs among the majority of those surveyed 96.9%.

Also, more than half of the respondents (56.7%) try to adhere to a regular and complete diet. As a result of generalizing the data obtained, the most common and effective options to overcome stress among the students are the following: listening to music or watching a movie, simple physical activity, talking to a loved one. However, it should be noted that there are students who struggle with stress through bad habits and stress-eating. It is necessary to dwell on the following question, which involves obtaining information about the causal links that contribute to the irrational nutrition of students. According to the majority of respondents, one of the main reasons is lack of time (54%), reluctance to cook at all (22%), lack of financial resources (14%), unawareness of the basic principles of healthy eating (10). The majority of respondents have the opportunity to change the quality of their food, balance and rationalize it - 58.7% confirmed this fact, but 13.3% are unable to do so due to a number of reasons.

90% of respondents believe that systematically organized physical activity is necessary for a healthy lifestyle, but only 28% of the surveyed are systematically engaged in the corresponding activities. 66.7% believe that it is necessary to add a health-preserving competence forming component to the educational programs; 50% consider the environment of the Institute a favorable area for health preservation.

Conclusions. It is confirmed that the lifestyle of a modern applicant of education directly affects the efficiency and success in obtaining different educational levels. Therefore, every individual must possess knowledge of rationalization and adjustment of his/her lifestyle. Thus, the problem of formation of health-preserving competence in students and applicants of education proves its relevance and topicality.

Therefore, in order to maintain and strengthen the health, it is necessary to extent the understanding of health and disease, as well as the ability to use all aspects of HLS and its components to form a positive attitude to a healthy lifestyle. It should be noted that the level of health is usually directly related to the level of education. It is believed that the higher the level of education is the better the overall health indicators would be. It is impossible to take care of one's own and public health without appropriate corresponding knowledge.

The training of highly qualified specialists who are aware of the health-preserving means and methods in the system of education of Ukraine includes not only the process of mastering subject knowledge and vital competencies, but also the formation of relevant life values, the result of which is their ability to independently "manage" their health. The students have also emphasized the urgent need to transform the educational environment into a health-friendly and stress-relieving entity that would contribute to the fulfillment and realization of the “Healthy nation” state concept.

Prospects for further research. Development of practical recommendations for motivating students to form HLS during the acquisition of different educational levels in higher education is the priority goal of our research. In order to fulfill it, we must investigate the overall application of corresponding educational material, which will promote improvement of a level of health of the population and will correspond to the state "Healthy nation" concept. These materials will be spread via the social media, audiovisual materials for interviews, student- and teacher-oriented lectures aiming at increasing the awareness of the current health-preserving issues, forming the necessary health-directed competencies, stimulating the interest in health, as well as organizing socio-pedagogical and educational trainings, educational activities to promote a healthy lifestyle.

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A NEGATIVE IMPACT OF UNHEALTHY LIFESTYLE ON A STUDENT'S BRAIN

Admission: The most dangerous habits are obtained at a relatively immature age. Such habits often cause considerable damage to human existence – premature aging of human body and the acquisition of diseases of various kinds.

Aim of the study: This study aims at clearly specifying the worst lifestyle habits done by university students, and how these habits could influence students' academic achievements. Our paper explains the category of bad habits that both harm human health and restrict person from the full use of his abilities throughout his life.

The research methods and material: The scientific literature and other sources relevant to a particular problem were examined and compared. A 18-item questionnaire was formulated and randomly distributed to 20 students. Based on the findings of the study, relevant interpretations were discussed, and some recommendations were suggested.

Most research on habit is based on correlational studies using self-report measures. Habits form through repetition of behaviour in a specific context [1]. Depending on students' perceptions, the worst lifestyle habits most students suffer from are lack of sleep, studying overnights, overuse of multimedia and alcohol.

Alcohol refers to a group of neuro depressants - substances that impair the activity of the brain centers. Such substances reduce the flow of oxygen into the human brain relatively strongly, because of that the brain can only function with less activity: the person experiences coordination distortion, speech inconsistency, unclear thinking, loss of concentration and attention, inability to think logically and make reasonable decisions. When alcohol is consumed, the amount of oxygen in the brain decreases, which, in the worst case, can lead to the death of brain cells - alcoholic dementia. The most severe form of alcoholism is considered to be the white fever. Trembling, rapid pulse, excitement, high blood pressure, and fever are symptoms of such kind of illness. White fever is manifested as hallucinations, disorientation, obscuration of consciousness [1].

To be more specific bad lifestyle habits have several effects on students' performance. Smoking makes student's memory worse and makes twice as likely to get dementia, including Alzheimer's. It also causes heart disease, diabetes, stroke, and high blood pressure [2]. According to scientific researches, quitting smoking leads to some recovery of the cortex though it is slow and may be incomplete.

Next habit mentioned in the survey was lack of water. According to a study in Human Brain Mapping journal, dehydration causes shrinkage of brain tissue as well as negative effects on cognitive performance. It is needed to mention, to maintain a proper level of water in student's body, we need to try upping water intake by sipping on detox water if we are bored of plain [3].

Based on the results of our survey, we have figured out that students consume too much sugar. It was proved that excessive intake of sugar for a long period disturbs student's body's capacity to absorb proteins and nutrients. This might result in a condition called malnutrition, which deters the brain's growth. It happens because our body lacks adequate nutrients in the blood, and hence, it does not deliver enough nutrients to our brain, which in turn, deters its development [5].

At the same time we can't but mention the consumption of salt. High salt consumption is a contributing factor for high blood pressure. As a result, high blood pressure leads to an increased risk of stroke and causes repeated small traumas to your brain resulting in minor cognitive deficits both among younger and older people [8].

It is important to underline, the most unhealthy habits students owe, is not getting enough sleep. This has been discussed by a great number of authors in literature. Sleep deprivation can lead to several issues such as extreme daytime drowsiness, depression, and impaired memory. The part of the brain that suffers due to lack of sleep is the 'hippocampus'. Even a single night of improper sleep can affect your brain's ability to memorize new information. The brain purifies itself of toxins only during the deep sleep cycle. Lack of sleep can cause the death of brain cells, which can lead to impaired memory and reduced abilities [5].

Another key point is sitting for too long. It is needed to mention, sitting isn't just a physical health risk — it's a neurological risk as well. It is possible that sedentary behaviour is a more significant predictor of brain structure, specifically [medial temporal lobe] thickness, and that physical activity, even at higher levels, is not sufficient to offset the harmful effects of sitting for extended periods of time [6]. All that screen time can negatively impact students’ mental and emotional wellbeing. The lack of true personal interaction limits the brain’s opportunities to make better connections. It can also lead to loneliness and depression — mental conditions that contribute significantly to reduced brain health. According to experts, excessive screen time has a negative effect on intellectual abilities as well as emotional well-being [10].

Conclusions: From the outcome of our investigation it is possible to conclude that bad habits harm not only students’ achievements but also their brain. If we are concerned about the health of human’s brain and the quality of thinking in the future, students’ need learn to take care of their brain. A few simple changes to students’ lifestyle could boost their memory, learning, mental resilience, and overall health.

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FACTORS AFFECTING HEALTH-PROMOTING LIFESTYLE BEHAVIORS AMONG FUTURE NURSES

Admission: Lifestyle is defined as normal and conventional daily activities which are accepted by people during their lives and these activities can affect the health of individuals [1, 2]. Promoting a healthy lifestyle is the foundation of reviving a nation's health. A healthy lifestyle of an individual is a way of life corresponding to genetically determined typological features of a given person, specific living conditions and aimed at the formation, maintenance and strengthening of health in order to fully perform human socio-biological functions. The solution to the problem of maintaining one's own health lies in the person himself, in his knowledge and understanding of the problems of its formation, preservation, strengthening and restoration, as well as in the ability to follow the rules of a healthy lifestyle.

Aim of the study: Considering the importance of the way a new behavior affects "life quality" as a motivational factor for starting and continuing that behavior, this study aimed to determine the relationship between health-promoting lifestyle and its aspects.

The research methods and material: The scientific literature and other sources relevant to a particular problem were examined and compared. 40 first and second year students of Zhytomyr Medical Institute were also interviewed concerning their healthy habits and motivation. Data collection was done through a three-section questionnaire. Their comments were observed. Based on the findings of the study, relevant interpretations were discussed, and some recommendations were suggested.

Health specialists who were previously focusing on treating diseases are now concerned with prevention and providing health through lifestyle promotion and eliminating the factors which negatively affect human health in any way. Most health problems such as obesity, cardiovascular diseases, cancers and addiction which are observed in most countries are associated with the transformations in the individuals' lifestyle. Also, inappropriate lifestyle is one of the influential factors for the emergence of chronic diseases like hypertension, chronic obstructive pulmonary diseases, liver cirrhosis [3]. Non-contagious diseases are closely related to lifestyle; in other words, lifestyle is one of the important determining factors in the health and disease of individuals [4]. Obviously, with no modification in lifestyle, there will be irreparable consequences in future. Lifestyle modification requires behavioral changes that constitute a major part of daily habits. If lifestyle changes do not promote global quality of life, persistence of this motivation will face some problems.

At this level, health is defined as using some positive qualities recommended by World Health Organization. Health is the fulfillment of human potential, maintenance of balance and goal orientation in the environment [2].

The modifiable risk factors that contribute to most of those diseases are physical inactivity, poor dietary habits and misperceptions of preventable diseases [5, 6]. However, healthy lifestyle such as physical activity, good eating habits, and stress management can help prevent or reduce incidence of some of the chronic diseases.

The most important factor in ensuring a lifestyle is the personal component, which involves establishing a lifestyle depending on the hereditary typological features of man, hereditary or acquired diseases or disorders of his regulatory-adaptive systems or immunity, level of valeological education, life goals, socially available -economic conditions. When using social technologies to form a healthy lifestyle, it is necessary to take into account the age characteristics of customers.

Results: There was a significant correlation between all approaches of promoting the healthy lifestyle. The highest score was for an interpersonal relationship (60.2%), and the lowest score was for and physical activity (32.4%). Significant differences were found in physical activity by gender. There were significant differences in health responsibility, spiritual growth and body mass index by family background ($P < 0.01$). Almost all the participants, 92% reported that they had a healthy eating behavior. Many of participants, 80% stated that they preferred to cook their own traditional Ukrainian food at home. However several of them, about 56%, admitted that once in a while they eat fast food, especially when they spend time with their peers.

Conclusions: social differentiations are the most important factor, because it founded limits of every-day practice. So, way constructing about every-day habits are connected with real conditions of life, financial opportunities.

Since one out of six students in this study does not work out or go to the gym health program planning to promote lifestyle, especially physical activity and nutrition among students is recommended. Results might be representing for development person’s opportunities and rationality on base of manage of different information and use it for their health. Our findings may be helpful for faculty administrators, curriculum planners, and health educators in designing guidelines to structuralize a healthier campus and to develop health promotion programs supporting healthy choices among students.

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EXPLORING THE RISKS OF EMOTIONAL WELL-BEING OF NURSES RELATED TO THE PREVENTION OF CORONAVIRUS TRANSMISSION

Admission. Coronavirus pandemic can be reasonably regarded as the toughest crisis period in modern development and functioning of health care service [1]. While the infection has been spreading rapidly, the drawbacks and weaknesses of health care sector have been found [3]. At the same time, the search and implementation of new approaches to the provision of medical services during the pandemic took place [2; 3].

Nowadays healthcare facilities continue working under strenuous conditions as they face numerous problems, require additional financial and material governmental support and struggle to strengthen their own potential in order to combat coronavirus transmission [3].

Procedures and safety provisions aimed at prevention of further coronavirus transmission have been developed by healthcare facilities. Municipal Non-profit Institution 'Regional Medical Centre of Mental Health of Zhytomyr Regional Council' is not an exception.

The purpose of the study is to analyze the level of competence of nurses working in a psychiatric department concerning the prevention of coronavirus transmission.

Research methods: system analysis, comparison, generalization, systematization of scientific literature and logical generalization, survey, questionnaire, mathematical approach to data processing. The research was conducted among nurses working at Municipal Non-profit Institution 'Regional Medical Centre of Mental Health of Zhytomyr Regional Council.'

In order to get the results of the research, the following evaluation criteria were developed: low level of knowledge (nurses answered correctly to 60% of questions), satisfactory level (full answers were given to 80-90% of questions), and high level of knowledge (nurses confidently explained the main issues regarding the prevention of coronavirus transmission).

Mathematical processing of numerical outcomes was conducted involving the usage of correlation coefficient (r).

Research findings and further discussion. COVID-19 pandemic challenged mental health service immensely, both medical staff and patients. However, preventive measures aimed at combating coronavirus should not create the environment where patients' rights are violated and their dignity is humiliated. Moreover, treatment methods of mentally ill patients require group work and activities aimed at patients' socialization, but not at increasing the distance. Restrictions that have to protect patients from infection can cause the increase of anxiety, irritation, uneasiness and even aggression among them. That is why a balance between preventive counter-epidemic measures and medical approaches is becoming increasingly important in facility’s functioning.

Psychiatric assistance is a set of special measures aimed at prevention, early detection (including preventive examination), diagnosis of mental disorders, treatment, supervision, and care, medical, psychological and social rehabilitation of people, who suffer from mental disorders.

Patients of mental health service have some distinctive characteristics such as high level of disability, distortion of social contacts, social maladjustment, distortion of cognitive functions, limitation of vital functions, existence of accompanying pathology, need of durable in-patient care, low awareness of danger level.

As a result, coronavirus infection among these patients is predicted to cause additional complications.

A nurse constantly maintains the contact with mentally ill patient, knows his or her strengths and weaknesses due to nurse’s professional duties and personality traits. While a patient constantly maintains contact with a nurse, he or she trusts him/her, perceives a nurse as friend, a supporter, a coach or a person who can help and protect in a particular situation. A nurse can provide a safety environment in psychiatric department and protect a patient from being infected with coronavirus both by following the counter-epidemic measures and rules and by providing all necessary information regarding COVID-19. It is a nurse who has to teach a patient the main safety measures, prepare him or her to an independent life during the pandemic and explain him or her how to act and with whom to consult in case when the first symptoms of disease appear.

Conducted survey allowed to evaluate the level of competence of nurses working in a psychiatric department about the organization of working process during the coronavirus epidemic.

Nurses working in a psychiatric department (regardless of their qualification) are well aware of incubation period duration and the main clinical symptoms of disease. Nurses who took part in the survey, confidently named the standard security measures, outlined hand washing procedure, and fully explained the meaning of ‘social distance’ and ‘respiratory hygiene’.

However, the questions related to asymptomatic case of disease and the characteristics of groups of people that are the most vulnerable to coronavirus appeared to be complicated.

89,7% of respondents understand that coronavirus spreads via airborne transmission through breathing in droplets containing the virus that are released into the air while coughing or sneezing or while the virus that remains on the surfaces is transmitted to eyes, nose or mouth.

81,3% of respondents pointed that simple disinfectants can kill the virus and prevent the transmission and explained that viruses are not resistant in outer environment and they die immediately under the temperature above 56 degrees, and they are ruined under the influence of chloroform, formaldehyde, ethanol or ester.

The surveyed nurses are concerned about the fact that irregular appearance of new CoV types and outbreaks caused by them appear to be a serious global threat to health. 78,4% of respondents pointed that it is highly probable that due to the climate change, ecological issues and the increase of interactions between human and animals, the new outbreaks of this infection are inevitable.

Conclusion. Conducted research proved the importance of constant professional education of nursing professionals by the organization of training sessions regarding the issues of coronavirus transmission prevention in medical facilities.

Nowadays it is becoming extremely necessary to provide the constant information support of nurses in order to make sure that they carry out their duties safely during the coronavirus pandemic.

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RABIES: WHAT YOU SHOULD KNOW AND HOW TO PROTECT YOURSELF

Rabies is an acute infectious disease of animals and humans caused by the neurotropic rabies virus. It is characterized by the development of a kind of encephalitis with rapid damage to the central nervous system. In case of delay in providing qualified medical care, death is inevitable.

Causes of rabies and ways of infection transmission

A person can become infected with rabies from an infected animal through:

- bite;
- scratches and microdamages of the skin;
- getting infected saliva on the mucous membranes.

In contact with humans, cats and dogs are most often infected, and in the wild - foxes and wolves. Homeless animals are particularly dangerous, especially dogs, for which the bite is an instinctive reaction to protect the territory, members of the pack or to obtain food.

Symptoms of rabies

In humans, the incubation period of rabies usually lasts 1-3 months, but can vary from one week to a year, depending on a number of factors:

- places, number and depth of bites (the most dangerous bites in the face and head in general);
- the amount and activity of the virus that got into the wound;
- age of the victim (children are more vulnerable than adults).

The initial symptoms of rabies are fever and pain, as well as unusual or incomprehensible tingling, tingling or burning sensations at the site of injury.

After the onset of symptoms, the disease almost always ends in death. In the process of spreading the virus by the central nervous system develops progressive fatal inflammation of the brain and spinal cord.

There are two forms of this disease: active and paralytic rabies.

People with active rabies are characterized by hyperactivity, hydrophobia (fear of water) and sometimes aerophobia (fear of drafts or fresh air). Death occurs within a few days as a result of cardiorespiratory arrest. Paralytic rabies accounts for about 30% of all human cases. This form of rabies lasts longer than the previous one with a lighter course. The muscles gradually become paralyzed, starting at the site of the bite or scratch. The coma develops slowly and death ensues.

Treatment

In case of human infection, immediate hospitalization and administration of rabies vaccine are indicated. There should be six such vaccinations: on the day of the doctor's appointment (day 0), and then on the 3rd, 7th, 14th, 30th and 90th days.

The rabies vaccine prevents the disease in 96-99% of cases.

It is effective if the course is started no later than the 14th day after the bite or salivation. However, the course of immunization is prescribed even a few months after contact with a sick or rabies-suspected animal. Antibodies in humans appear only on the 12th-14th day, and their maximum levels are reached only after 30-40 days. Immunity becomes effective approximately two weeks after the end of the vaccination course and remains so throughout the year. In case of dangerous localization of bites (face, neck, head, fingers, perineum), multiple or very deep single bites, salivation of mucous membranes, any damage caused by predators, bats and rodents, when there is a risk of a short incubation period, except vaccines are used and human rabies immunoglobulin. The incubation period can be reduced to 7 days - this is less than the time of post-vaccination immunity. If more than three days have elapsed since contact with the animal, antirabies immunoglobulin is not used.

In general, treatment measures are aimed at reducing the patient's suffering.

The patient is placed in a separate ward and provided maximum peace. Drugs are prescribed to reduce excitability. Fluid loss is replenished by intravenous saline, plasma substitutes, glucose solution. If necessary, carry out artificial lung ventilation.

Medical personnel should wear protective clothing to prevent saliva from entering the skin and mucous membranes.

Rabies prevention. To prevent rabies you need:

- regularly vaccinate pets;
- avoid contact with potentially dangerous animals.

• beware of homeless, let alone wild animals that are not afraid to approach you.

First aid after the bite

If you are bitten by an animal, consult a doctor immediately!

When the doctor is not available, rinse the wound thoroughly for at least 15 minutes with soapy water, detergents, disinfectants for surgical treatment of wounds or other means (70% alcohol or 5% iodine solution) that neutralize the virus. After that, be sure to seek medical attention.

People must be vaccinated:

-who have been bitten by rabid or suspected rabies animals directly or through clothing, even with the slightest damage to the skin;

-bitten by any wild animals (even without suspicion of rabies);

-scratched by animals suspected of rabies or in case of splashing scratches with saliva of such animals, getting it on the mucous membranes;

-who have suffered any microdamage to the skin while working with rabies-infected animals, pathological material, or transporting animal carcasses for examination.

Is the rabies vaccine safe? Yes, it is quite safe. Among the common reactions: pain, swelling and redness at the site of the bite; nausea, dizziness; aches in the body; fever (often after revaccination).

As of 1.01.2020, there are 74,944 doses of rabies vaccine and 3,305 doses of rabies immunoglobulin in Ukraine.

In the last 5 years, 17 people have died of rabies in Ukraine. This was reported in the Ministry of Health

In Ukraine, when conducting preventive vaccinations, there are distinctions between unconditional and conditional indications. According to unconditional indications, it is prescribed for bites caused by clearly rabid, wild and unknown animals, as well as when the diagnosis of rabies in animals remains unclear.

Vaccination according to conditional indications is not carried out in single bites of healthy animals with localization of wounds on the extremities as well as if these animals are under veterinary supervision.

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THEORETICAL AND METHODOLOGICAL PRINCIPLES OF DISTANCE LEARNING IN THE EDUCATIONAL PROCESS OF HIGHER MEDIKAL EDUCATION

It is determined that among scientists there is no single approach to the interpretation of the concept of distance learning. Distance learning is considered by many scientists as the inclusion in the educational process of information and educational system of remote access, based on modern information technology. As an organization of the educational process, during which the teacher develops a curriculum, which is mainly based on independent student learning. Distance learning is personality-oriented. Features of distance learning compared to traditional are: flexibility, parallelism, asynchrony, mass, profitability, the status of teacher and student. The advantages of distance learning over full-time and distance learning are: efficiency, information, communication, pedagogical value, efficiency, ergonomics [1].

It is established that distance learning is a step-by-step process of organizing a system of professional training, which includes such components as goals and principles of implementation, content and methods of teaching, forms and means of teaching, implementation of indirect (distance) student-teacher relationship. The use of such distance learning tools as discussion forums, discussion of learned material in electronic networks, mailing lists, creates a new learning environment that increases the motivation to learn [4].

The peculiarities of the organization of distance learning are described, which provides for the stages of mastering the discipline: lectures, practical and laboratory classes, seminars, chats, forums, tests, independent work, consultations on academic disciplines, etc. At distance learning special technologies are used: case technologies (based on packages of educational and methodical materials for independent studying, control tasks and control tests); television technology (based on closed-loop television feedback systems); video conferencing technologies (based on the means of providing two-way or multi-way audio and video communication over long distances); network technologies (use of remote access means to obtain the necessary educational information, control of knowledge and individual consultations with teachers) and combined technologies [2].

It is established that European approaches to the problems of distance learning are mostly pragmatic, differ in the deep development of didactic aspects. For further development of the market of educational services, real introduction of distance learning in domestic education there is a need to implement the tasks prescribed in the Regulation on distance education, relating to the organization of a modern system of distance learning, its legal, personnel and financial support, formulation and scientific substantiation of distance learning strategy education [5].

It is established that the distance form of education has goals and content, which is determined by the program of a particular educational institution, teaching aids, organizational forms and methods. That is, it is part of any training system. Methods, teaching aids and organizational forms are determined by the specifics of the technological basis of distance learning. The organization of the educational process is based on the use of the best traditional teaching methods and new information and telecommunication technologies, as well as on the principles of independent learning. The most successful in terms of distance learning are the method of projects (for creative integrated application of acquired knowledge), research, problem-based methods. The development of information technology has influenced the method of distance learning, which allowed to make it interactive and increase its efficiency. Known forms of learning, namely lectures, seminars, laboratory classes, tests, coursework, tests, exams, consultations, independent work also take place in the distance learning system, but with certain specifics [3].

Distance learning involves a new organization of the educational process, which is based on the use of both the best traditional teaching methods and new information and telecommunications technologies, as well as the principles of self-study. It is based on fundamentally new teaching methods, technical means of information transfer and information and communication technologies. To create a system of distance learning requires sufficient research and practical activities, during which the issues of creating the necessary teaching methods, development of hardware and software, their content, training of the necessary specialists would be resolved. Distance learning is an appropriate form of education in medical universities and an effective system of training and continuous support of highly qualified specialists.

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FEATURES OF A NURSE'S ACTIVITY IN THE PRIMARY HEALTH CARE SYSTEM AT THE PRESENT STAGE

Relevance. Reorganization of primary health care (PMD) requires a nurse not only to fulfill the doctor's instructions, but also to independently perform the appropriate amount of work, primarily preventive. Of particular importance is "patient orientation", which contributes to a significant improvement in the quality of medical care, the success of treatment and the quality of life of consumers of such care. [1]. A new organizational culture needs to be developed to implement a patient-centered model at the PMD level. It should be based on respect for all parties involved, effective exchange of information, participation of patients and their families in the treatment process and decision-making, and genuine partnerships between patients, their families and all staff of the PMD facility[3]. The role of secondary health workers in shaping a healthy lifestyle of patients and conducting medical prevention in primary care units is particularly significant. [2].

Goal. Study of the peculiarities of nurses ' activities in the primary health care system at the present stage.

Materials and methods. An anonymous survey of 60 nurses of primary health care services in Zhytomyr was conducted at the place of work according to the developed questionnaire (14 questions), in order to assess the level of their readiness to provide medical services in the process of patient-oriented medical care in the conditions of a primary Medicine Institution. Respondents ranged in age from 23 to 58 years, with work experience ranging from 2 to 35 years.

Key results. According to the majority (75.5%) of respondents, the issues of organizing the medical and diagnostic process and corporate culture were not difficult to understand and implement in practice. At the same time, the majority (80%) who noted the effect of implementing a patient-oriented model of medical care, 15.0% of the nurses surveyed did not notice positive changes, while the rest could not answer this question. Among the leading methods of patient counseling, respondents most often use telephone counseling (92%) and motivational interview methods (50%); the "approach" (11.6%) and BATHE (18.3%) methods have the least idea. Only 30% of respondents reported that their institution has a pre-medical examination room (consultation by nurses, screening examination before visiting a doctor). 80% of respondents consider it appropriate to introduce (after preliminary training to improve the necessary skills) independent admission of patients by nurses.

Conclusions. The conducted sociological research proves the need to develop nursing practice, the use of new organizational technologies aimed at a holistic approach to human health, family and civil society, that is, a socially oriented approach to PMD. Problematic issues are identified, approaches to their solution are defined.

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THE PROBLEMS OF NON-TRADITIONAL METHOD OF TREATMENT

Acupuncture is a form of treatment that involves inserting very thin needles through a person's skin at specific points on the body, to various depths.

The history of acupuncture. Acupuncture is one of the oldest practices of traditional Chinese medicine. By the 19th century, acupuncture had become commonplace in many areas of the world.

The philosophy behind acupuncture. Scientists of those times believed that the human body was filled with and animated by an invisible life-giving force which they called 'qi' and when the qi was flowing well and going to all the right places, then a person would experience good mental and physical health. When the qi was flowing incorrectly (blocked or deficient) that would result in illness.

Qi is said to flow through meridians, or pathways, in the human body. These meridiens and energy flows are accessible through 350 acupuncture points in the body.

Inserting needles into these points with appropriate combinations is said to bring the energy flow back into proper balance.

Some experts have used neuroscience to explain acupuncture.

Paul Kempisty, licensed acupuncturist with a MS in traditional Oriental medicine, explains, "[Acupuncture is] a minimally invasive method to stimulate nerve-rich areas of the skin surface in order to influence tissues, gland, organs, and various functions of the body."

“Each acupuncture needle produces a tiny injury at the insertion site, and although it’s slight enough to cause little to no discomfort, it’s enough of a signal to let the body know it needs to respond,” Kempisty says. “This response involves stimulation of the immune system, promoting circulation to the area, wound healing, and pain modulation.” Contemporary research on acupuncture relies mainly on this theory.

Incorporating acupuncture into real life. An acupuncture session to last anywhere from 60 to 90 minutes. The number of treatments needed depend on the individual.

Needles. The most common mechanism of stimulation of acupuncture points employs penetration of the skin by thin metal needles, which are manipulated manually. Needles vary in length between 13 to 130 millimetres with shorter needles used near the face and eyes, and longer needles in areas with thicker tissues.

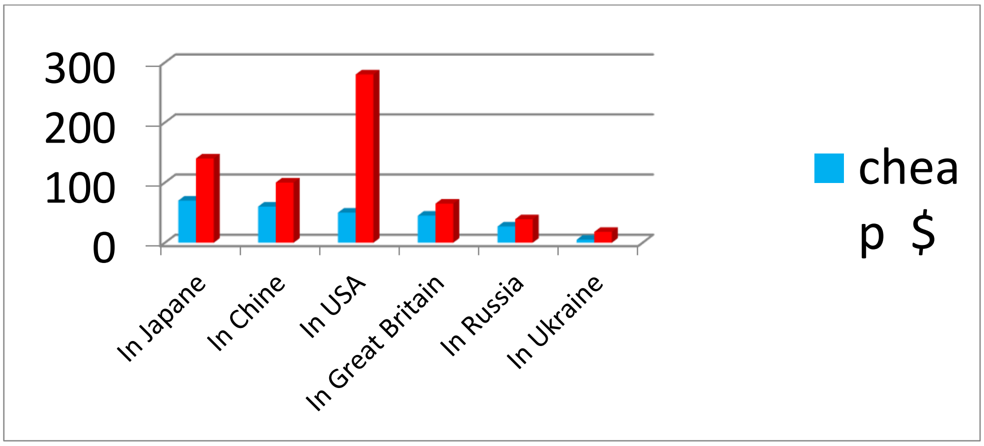
Uses and treatments of acupuncture.

The most common response to acupuncture. There is no universal response to acupuncture.

If you don't believe that **acupuncture help**, we can check on yourself. Several studies have shown that body pressure points are an alternative treatment to relieve certain illnesses and pains.

10 Magic points.

How much does an acupuncturist cost?



Conclusion. Acupuncture enjoys moderate to strong evidence of effectiveness in the treatment of 46 conditions and is considered safe in the hand of properly trained practitioners. Patients, medical professionals, and healthcare administrators can be confident that the recommendation of acupuncture for many patients is a safe, cost-effective, and evident-based recommendation. Note that acupuncture is more than a placebo.

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UNDERSTANDING THE CHALLENGES OF MAINTAINING A HEALTHY PREGNANCY

Admission: In spite of technology and medical science's ability to manage complex health problems, the current maternity care environment has increased risks for healthy women and their babies. Pregnancy is a wonderful time in every woman's life. A woman's body undergoes changes due to which the fetus can grow and develop normally. Childbirth education can help women simplify pregnancy and birth and be a resource for understanding how decisions about maternity care influence the health and safety of mothers and babies. But sometimes there are complications that adversely affect the health of mother and child. These complications are called pathologies.

Aim of the study: to identify and analyze pregnancy-related issues in order to increase chances of having a healthy baby.

The research methods and material: From fertilization to delivery, pregnancy requires a number of steps in a woman's body. One of these steps is when a fertilized egg travels to the uterus to attach itself. In the case of an ectopic pregnancy, the fertilized egg doesn't attach to the uterus. Instead, it may attach to the fallopian tube, abdominal cavity, or cervix [1].

Symptoms of an ectopic pregnancy can include a combination of: a missed period and other signs of pregnancy; tummy pain low down on one side; vaginal bleeding or a brown watery discharge; pain in the tip of your shoulder; discomfort when going to the toilet [3].

Another very serious condition that can occur during pregnancy is preeclampsia, which is high blood pressure during pregnancy in a woman who usually has normal blood pressure. This can cause problems with the woman's organs and potentially lead to a miscarriage and threaten the life of the mother if not watched and treated [1].

In addition to swelling (also called edema), protein in the urine, and high blood pressure, preeclampsia symptoms include: sudden increase in oedema – swelling of the feet, ankles, face and hands; excessive weight gain caused by fluid retention vision problems, such as blurring or seeing flashing lights [7]; belly pain, especially in the upper right side; severe headaches; dizziness; severe vomiting and nausea [4].

The next condition can happen as a result of preeclampsia. Eclampsia is when a pregnant woman begins to experience seizures. Seizures are normally seen in connection with brain injuries or disorders. In a case of eclampsia, the seizures are due to the woman's blood pressure being high along with the other changes that are happening during pregnancy. There are ways to treat this condition, but it varies from one pregnancy to the next. Sometimes, the only treatment is delivery of the baby in order to preserve the health of the baby and mom [1].

The lifeline for a developing fetus is the placenta. This supplies oxygen and nutrients and removes waste for the fetus since it isn't able to do it on its own. The placenta is usually delivered after a baby is born since it is needed up until birth. When the placenta separates from the uterus prior to birth, this is called abruptio placentae, or placenta abruption. This is also dangerous for the mom because she can bleed to death. There are four different classes of severity for this condition, which range from no symptoms to it being so severe that it causes hemorrhaging and fetal death, and sends the mom's body into shock [1]

Placental abruption is most likely to occur in the last trimester of pregnancy, especially in the last few weeks before birth. Signs and symptoms of placental abruption include: vaginal bleeding, although there might not be any back pain uterine contractions, often coming one right after another [5]; sudden-onset abdominal pain; enlarged uterus disproportionate to the gestational age of the fetus ecreased fetal movement, and decreased fetal heart rate [6].

And there is another possible problem that can arise with the placenta. Placenta previa is when the placenta is blocking the cervix, which is the entry way to the vagina or birthing canal. In this case, the baby cannot make its way to the vagina for birth. Most babies in this situation will therefore have to be delivered by Cesarean section, also called C-section. Moms experiencing this condition may have light to heavy bleeding, and early delivery by emergency C-section may be necessary [1].

Therefore, if a woman has any of the above symptoms, she should see a doctor in order to reduce the risk of even worse complications that will threaten the life of the child.

Conclusions: Childbirth education can help women connect with excellent resources and research to help them make decisions about their pregnancies and births that ultimately will make birth healthier and safer for them and their babies. More complete knowledge of the physiologic response of the body to early pregnancy will enhance our understanding of the causes of each sign and symptom and its relation to pregnancy loss.

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INTEGRATING THE PUBLIC HEALTH COMPONENT INTO THE MEDICAL CARE

Clinical medicine is concerned with diagnosing illness, treating disease, promoting health, and relieving pain and distress in individual patients. Public health is concerned with improving the health of populations and reducing inequalities in health [1; 5].

Public health goals can be identified in three main domains:

• Improving services is concerned with the organization and delivery of safe, high quality services for prevention, treatment, and care.

• Health protection is concerned with measures to control infectious disease risks and environmental hazards (such as chemicals, poisons, and radiation), including public health emergencies.

• Health improvement is concerned with societal interventions (e.g. in housing, education, employment, family/community life, and lifestyle) that are not primarily delivered through health services, aimed at preventing disease, promoting health, and reducing inequalities. Effective medical practitioners must be concerned with contributing to each set of goals [4; 5].

The science of public health is therefore concerned with making a diagnosis of a population’s health problems, establishing the causes and effects of those problems, and determining effective interventions. The art of public health is to create, advocate for, and use opportunities to implement effective solutions to population health and health care problems [2; 3].

Public health frameworks and principles are best illustrated in the context of everyday clinical practice. Problem-based learning features in the curricula of many medical schools and in some it underpins the whole educational system. More evidence is required as to the effectiveness of different approaches to public health education. Attachments/visits to individual families, primary care trusts, school health clinics, prisons, and other relevant institutions can heighten understanding of public health in practice. Most importantly, public health education needs to be participative and delivered enthusiastically [5].

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THE ROLE OF MEDITATION IN STRESS SITUATIONS

The purpose of this study was to investigate the role of meditation in the fight against stress. Parse the concept of "meditation", its role, essence, purpose, action, positive impacts. Learn the correct meditation techniques and make certain conclusions.

1) Introduction: the negative impact of society per person, a means of psychological protection - meditation.

2) The concept of "meditation" is a self-intelligence process for self-improvement in which a person remains alone with his consciousness.

3) The concept of "stress" is a state of mental tension that arises in the process of activities and difficult conditions. Life becomes a harsh and ruthless school for a person. Occurring on our way of difficulties (from a small problem to a tragic

situation), we have emotional reactions of a negative type, accompanied by a range of physiological and psychological shifts.

4) Phases and stress components:

a) The stage of anxiety is a stage that occurs with the appearance of a stimulus that causes stress. The presence of such a stimulus causes a number of physiological changes: the person accelerates breathing, a slightly rises pressure, increases the pulse. Changes and mental functions: an increase in violation, all attention is concentrated on an irritant, there is an increased personal control of the situation. This is based together to mobilize the protective capabilities of the organism and self-regulation mechanisms for protection against stress. If this action is enough, then anxiety and excitement subsist, stress ends. Most stresses are allowed at this stage.

b) Stage of resistance - comes in case of stress, which caused, continues to act. Then the body is protected from stress, spending the "reserve" stock of forces, with a maximum load on all body systems.

c) The stage of exhaustion - if the stimulus continues to act, then there is a decrease in the possibilities of confrontation stress, because human reserves are exhausted. The total resistance of the body is reduced. Stress "captures" a person and can lead him to illness.

5) The purpose of meditation: to be able to immerse yourself in a state of complete carelessness and alienation from external objects and internal experiences. Medical preparations act only at the level of processes of excitation or braking in our brain, they do not affect the mental processes of perception, adaptation and response. Meditation gives power and energy to change its emotional reactions. Thanks to this technique, it is easy to adapt to constant changes and overcome stress voltage. Meditation opens an internal source of peace.

6) History of the emergence and development of meditation: meditation in Indian and Buddhist yoga, development received in the spiritual exercises of the Jesuits, in the training of Muslims-Sufires and in some schools of psychoanalysis, aimed at improving the person.

7) Application of meditation: used as healthy people (including sports), so in the treatment of psychological problems and mental illnesses: drug addiction, alcoholism, for removing in patients with anxiety, insomnia and nervous tension.

8) Positive impacts of meditation on the human body:

a) Stabilizing action on blood pressure level
b) Reduction of heartbeat and breathing frequency
c) Reducing the content of stress hormones in the body
d) Improvement of mental activity
e) Increased immunity
f) Stabilization of the activity of brain waves
g) Energy and vivacity charge
h) Decrease in stress, anxiety and depression
i) Reducing fears, phobias, death of death
j) Improvement of mood, ability to enjoy life
k) An increase in self-confidence

l) Improvement of awareness

m) Improvement of the ability to concentrate

n) Strengthening emotions control force

o) Increasing the level of intelligence and organization of thinking

9) The action of meditation during stress: a person who meditates, learns to keep attention to their internal processes, looking at them as if from the side. Gradually, such detachment appears in a conventional state, you are abstract from what happens inside. And you have the opportunity to resist negative emotions.

10) The purpose of meditation is a healthy body and a healthy mind, peace, harmony, balance and happiness. All that is missing in our busy time.

11) Types of meditation: unidirectional and analytical.

12) Meditation technique:

a) It is best to meditate twice a day, in the morning for 15-20 minutes and in the evening the same;

b) It is better to meditate in a home and quiet setting, you should not distract;

c) Do not recommend practicing in such a room where you sleep, in this case there is a great probability that you will fall asleep during the session, because your brain is accustomed to falling asleep in this room;

d) It is not necessary to sit in Lotus's posture, most importantly, so that the back was straightforward, and you were convenient (the level of the back position is needed to breathe, and the air was better passed through your lungs, it is also necessary to save consciousness);

e) Close your eyes. Try to relax your body completely. Prompt your attention to tense areas of the body. As long as you watch breathing, you can not think about something at the same time.

13) Reaching a good concentration on breathing (Mantra), you will be able to observe thoughts from the side, by how they come and go, as they sail past you as clouds.

14) Tips for those who want to start meditating:

a) Do not wait for instant outcome

b) During the session, it is not necessary to strain and climb leather away to stop thinking,

c) It is better not to meditate before bedtime.

d) Pay attention to how much you feel in those days when you meditate.

e) It is better not to fall asleep during the session

f) You should not eat a lot to and immediately after the session.

g) Can first be worse.

15) Conclusion: in meditation, we are constantly opening what we are. This may be quite frightening or somewhat boring, but for a certain time it disappears. We are entering a certain natural rhythm and open our minds and the heart that are based on our nature.

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NEW TECHNOLOGIES IN THE FIELD OF MEDICAL SCIENCES

Scientific research in the field of medical sciences is an important aspect in the functioning of this industry. Medicine has the opportunity to become more qualitative and effective one not only in the theory but also in practical application due to the implementation of effective developments in its research.

To provide effective medical services, this branch should be developed in accordance with the needs of its users. The healthy person can perform manipulations, invent and improve something new and this is a person who has reached the absence of health complaints [1, c. 338-341]. For this purpose, the necessary innovations in medicine will allow us to reach a new level of diagnosis, treatment, operational interventions using absolutely new and integrated equipment. It will require a doctor only to control the procedure of work. It should be noted that these technologies have already been introduced in medicine, for example, the use of nanobots that perform surgical intervention independently. The surgeon doctor only manages it using a special control panel by controlling the process itself on a special monitor [2, c. 192-194].

Gerontology is considered to be a branch that uses nanoparts. The scholars are engaged in the direction of development of nanobots. It will not only suspend aging of cells but also stimulate their regeneration, thereby to "extend youth" and improve the physical state of the body of patients.

It should be mentioned that nanotechnology of using syringes without a needle is being developed. The scientists of the American Technological Institute of Massachusetts presented the development of an innovative syringe which has the ability to enter medication without a needle. The device operates with the help of Lorentz force. It is a small magnet but a powerful one which leads to a piston and then emits a medicinal product practically with a sound velocity (314 m / s) [3, c. 150-152]. Flying out of the top of the syringe, the thickness of which is very small, the drug pierces a very small hole and penetrates directly under the skin of the patient. The patient feels nothing. This device can be used to introduce any medications for injection in any place on a human body, even through the eardrum or the eye shell.

It is also necessary to focus on the fact that there is such an innovation in medicine as an artificial creation of stem cells. Scientists will be able to grow stem cells combining the DNA of the adult human cells and the genetic material of the egg. They (scientists) have already grown the urethra and kidneys by using this technology. In the long run, the patients will independently be able to grow material for transplantation. It brings forward the development of this branch of medicine to higher and integrated level.

Thus, the scientists all around the world are working on innovative developments in the field of medicine to provide modern, high-quality and effective medical services that help to prolong and improve the quality of life.

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ACUTE LYMPHOBLASTIC ANEMIA

One of the important problems of modern hematology is the problem of violation of normal hematopoiesis. At the same time, 75% of patients are children with acute lymphoblastic leukemia. One in two thousand children suffers from acute lymphoblastic anemia. This type of blood cancer is more common in developed, rich countries. This suggests that the disease occurs through the modern way of life. There were also quite "wild" assumptions when the appearance of cancer was associated with power cables, electromagnetic waves and chemicals. "The study suggests that acute lymphoblastic leukemia has a clear biological cause and is caused by a variety of infections in children who are predisposed to it and whose immune systems have not received proper training," says Professor Greaves.

Most cases of childhood leukemia are likely to be preventable. It is necessary to give children a safe "cocktail" of bacteria - for example, in a yogurt drink, which will help harden their immune system. Until now, we treated germs as "bad guys," but recognizing their important role in our health and well-being is revolutionizing the understanding of the causes of disease, from allergies to Parkinson's disease and depression, and now leukemia. The malignant nature of leukemia is that the human body usually cannot recover from the disease on its own. But as a result of advances in modern medicine, leukemia in all cases has become treatable, and in many cases has become curable. A dramatic aspect of the current situation in Ukraine is the impossibility of applying in practice modern effective diagnostic and treatment methods due to insufficient funding of the industry and irrational use of already allocated resources.

Typically, patients consult a hematologist after identifying characteristic changes in a detailed blood test (including the presence of anemia or thrombocytopenia), which may suggest the presence of leukemia, but there may be treatment with lymphadenopathy, splenomegaly or systemic symptoms such as fatigue and weakness, significant night sweats, weight loss, prolonged fever.

The diagnostic algorithm has become significantly more complicated over the past few years and today includes not only traditional clinical, laboratory and instrumental methods of examination to verify the diagnosis and start treatment, as well as additional diagnostic options. The full range of diagnostic studies in hematology includes, in addition to cytological examination of blood and bone marrow, their cytochemical analysis, determination of immunophenotypic markers using monoclonal antibodies to confirm linear affiliation and degree of differentiation, establishment of clonal excess based on cytogenetic and molecular , as well as histological examination of lymph nodes and bone marrow with enzyme - linked immunosorbent assay of pathological cells. In addition to these standard methods of examination of oncohematological patients, it has become important to determine the determinants of multiple drug resistance, markers of apoptosis, genetic mutations, the impact of which on the effectiveness of therapy has been convincingly proven in recent years.

Unfortunately, the full range of the above diagnostic measures, which have become routine for developed countries, is not performed in any medical institution of hematological or oncological profile of the Ministry of Health of Ukraine, and cytochemical, immunophenotypic, cytogenetic and molecular genetic research is available only in the institutes of the National Academy of Ukraine and the Academy of Medical Sciences of Ukraine.

Turning to the treatment of acute lymphoblastic anemia, it should be emphasized once again that this disease can manifest itself and proceed in different ways, and therefore with a certain clinical variant and features of the disease, medical treatment may not be required. Due to the development of treatment methods, including chemotherapy, radiotherapy, bone marrow transplantation methods, the survival of children with acute lymphoblastic anemia has increased from 0% in 1970 to 85% in 2017. Science does not stand still, so we have high hopes that very soon in Ukraine it will be possible to conduct operations so complex that we do not seek help from neighboring countries.

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SECRETS OF THE INNER WORLD

Background. Since the discovery of fiber-optic endoscopy to examine upper and lower gastrointestinal tract, diagnosis and therapy of gastrointestinal diseases were revolutionized. However, by these methods, of the small bowel, only the proximal duodenum and distal ileum could be examined. Hence, rest of the small bowel, which is more than four meters in length, remained like a black box.

In science, what is fiction today, may become reality tomorrow. This is amply documented once again by discovery of capsule endoscopy.

Capsule Endoscopy. Is a procedure that uses a tiny wireless camera to take pictures of your digestive tract. A capsule endoscopy camera sits inside a vitamin-size capsule you swallow. As the capsule travels through your digestive tract, the camera takes thousands of pictures that are transmitted to a recorder you wear on a belt around your waist.

Manufacturers. Capsule endoscopy is a combination of the device that physicist G. Iddan had developed and that devised by Paul Swain. This was an attempt to reproduce the movie fiction filmed by R. Fleischer in 1966, based on a story by I. Asimov. The first reported use of capsule endoscopy in ten human volunteers was published in 2000 by P. Swain in Nature. The first model of capsule endoscopy was made available by Israeli Company Given Imaging by the name of M2A.

Capsule Structure. Most capsules consist of a lens, 4 light emitting diodes, a color camera, 2 batteries, a radiofrequency transmitter and an antenna . The camera transmits multiple (usually 2/second) images by radiofrequency through sensor to a recorder.[1]

Why is capsule endoscopy done? Capsule endoscopy helps your doctor evaluate the small intestine. This part of the bowel cannot be reached by traditional upper endoscopy or by colonoscopy. The most common reason for doing capsule endoscopy is to search for a cause of bleeding from the small intestine. It may also be useful for detecting polyps, inflammatory bowel disease (Crohn's disease), ulcers, and tumors of the small intestine.

An empty stomach allows for the best and safest examination, so you should have nothing to eat or drink, including water, for approximately twelve hours before the examination. Your doctor will tell you when to start fasting.

Tell your doctor in advance about any medications you take including iron, aspirin, bismuth subsalicylate products and other over-the-counter medications. You might need to adjust your usual dose prior to the examination.

Discuss any allergies to medications as well as medical conditions, such as swallowing disorders and heart or lung disease.

Tell your doctor of the presence of a pacemaker or defibrillator, previous abdominal surgery, or previous history of bowel obstructions in the bowel, inflammatory bowel disease, or adhesions.[2]

Anatomy and physiology. Capsule endoscopy can be used to evaluate the esophagus, stomach, small intestine, and colon. It is ingested just like any other capsule and travels through the esophagus into the stomach. It then passes through the pyloric sphincter into the duodenum, jejunum, and ileum. The capsule proceeds through the ileocecal valve into the cecum. It then advances through the colon and is excreted during a bowel movement. In many cases, the patient will witness the passage of the capsule, but plain abdominal films can be used to evaluate the complete passage of the video capsule.

Indications. There are many indications for capsule endoscopy. The most common indication is for obscure gastrointestinal bleed thought to be located in the small bowel after upper and lower endoscopic procedures failed to find a bleeding source. Video capsule has a 35% to 77% detection rate of obscure gastrointestinal bleeds. Other indications for small bowel capsule endoscopy are as follows: diagnosis of Crohn's disease and evaluation of Crohn's disease activity, diagnosis of celiac disease, and evaluation of refractory celiac disease, polyposis syndrome surveillance, small intestine tumors such as neuroendocrine tumors, or carcinoid tumors. Capsule endoscopy is indicated to evaluate the esophagus for esophageal varices screening, Barrett's esophagus screening, and esophagitis identification. Colon capsule endoscopy is indicated for colon cancer screening in patients with a previous incomplete colonoscopy, patients that have major risks for a colonoscopy itself, and patients that cannot tolerate sedation

Technique. Prior to video capsule ingestion, the patient is outfitted with a sensor belt which gathers the capsule's transmitted images. Once a magnet is removed from the capsule, it becomes activated, and the patient can ingest the capsule while in an upright position. As mentioned above, the capsule can also be placed in the stomach or duodenum endoscopically. Patients are advised not to participate in any activities that may cause sensor belt detachment. The patient can resume a clear liquid diet 2 hours after capsule ingestion. They can have a small meal 4 hours after ingestion. Patients undergoing esophageal capsule endoscopy only need to fast for 2 hours before the procedure and will need to consume 100 mL of water just prior to capsule ingestion. The patient will swallow the capsule while lying supine and slowly move into an upright sitting position over a 5-minute period.[3]

What to expect after capsule endoscopy. Avoid any powerful electromagnetic fields. If you require magnetic resonance imaging (MRI) it is imperative that you wait until the capsule is excreted and undergo an x-ray to confirm that the capsule has left your body. Please return to the Laboratory 8-12 hours after ingesting the capsule for equipment removal.

After removal of the equipment, you may return home and resume all normal activities and diet. Results will generally be available within 24 to 72 hours.[4]

Risks. Capsule endoscopy is a safe procedure that carries few risks. However, it's possible for a capsule to become lodged in your digestive tract rather than leaving your body in a bowel movement within several days.

The risk, which is small, might be higher in people who have a condition — such as a tumor, Crohn's disease or previous surgery in the area — that causes a narrowing (stricture) in the digestive tract. If you have abdominal pain or are at risk of a narrowing of your intestine, your doctor likely will have you get a CT scan to look for a narrowing before using capsule endoscopy. Even if the CT scan shows no narrowing, there's still a small chance that the capsule could get stuck.

What are the disadvantages of this procedure? One disadvantage is that capsule endoscopy is an all-day test, although patients do not usually stay in the hospital to complete it. Another disadvantage is the potential for the capsule to become impacted or lodged within a narrow area or stricture in the small intestine. This complication can occur because the capsule is not pliable. Patency capsules, which are dissolvable "dummy" capsules, can be administered in these cases, as the passing of a patency capsule within 24 hours ensures that a regular capsule will pass through without consequence.

In addition, a capsule may occasionally have difficulty exiting the stomach, or it may stay in the stomach for its entire battery life. This problem has been partially alleviated by the use of a real-time viewer, which allows clinicians to see the location of the capsule.

Results. The camera used in capsule endoscopy takes thousands of color photos as it passes through your digestive tract. The images saved on the recorder are transferred to a computer with special software that strings the images together to create a video. Your doctor watches the video to look for abnormalities within your digestive tract.

It might take a few days to a week or longer to receive the results of your capsule endoscopy. Your doctor will then share the results with you.[5]

So, in the future, new capsule devices may offer a great potential for minimally invasive diagnosis and targeted therapy. Moreover, capsule movement will be actively controllable thereby opening new avenues for advanced specific diagnosis and targeted therapy.

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THE IMPROVEMENT OF THE NURSING CARE FOR THE COMBATANTS IN THE MILITARY HOSPITAL CONDITIONS

The relevance of the topic: The civilian and military medicine faced to the large-scale problems related to the organization of medical care for both military personnel and civilians due to the beginning of the operations in the Eastern part of Ukraine.

The concept of the development of the security and defense sector of Ukraine, in particular, determines the priorities for the development of the health care system, these are: the development of the field medicine; the improving of the system of training and retraining of the military medical personnel; the psychological support for the militaries; the coordination of civil and military health care systems; the improvement of the medical service management system, its functional and organizational structure; the deepening international military-medical cooperation [**Ошибка! Источник ссылки не найден.**].

The Strategic Defense Bulletin of Ukraine defines the operational goal for the development of the military health care system. It is the construction of a system of the medical support, which is capable for providing the adequate medical support to the defense forces while performing any tasks. The implementation of the modern technologies of the medical care, the treatment of the wounded, the medical information support in accordance with the standards of medical care, the clinical protocols and other industry standards in the field of health care, the current research achievements. [2].

The medical support is a separate type of support for the Armed Forces of Ukraine (AF of Ukraine) and it is a system of measures for preserving and strengthening the health of personnel, preventing the emergence and spreading of diseases, providing medical care to militaries, treating and restoring their abilities to work after injuries, diseases and traumas. It includes organizational, medical and evacuation, sanitary and hygienic and anti-epidemic measures, medical supplies, the training of the military medical personnel and scientific solutions to the military medicine.

The basis of the medical support of armies in wartime is a system of medical and evacuation measures, which is a set of interrelated principles of medical care for the wounded, affected, injured and sick, their evacuation, treatment, rehabilitation and designated for its forces and means of medical service [3].

The main feature of the current armed conflict is the widespread using of missile and an artillery system, that’s why the shrapnel wounds - 62.5% and mine injuries - 25.6% are dominating in a structure of the sanitary losses of the surgical profile. Combined injuries are most common in the "gunshot + injury" option.

The proportion of the multiple and combined injuries is 27.4%. In terms of anatomical localization, the limb injuries predominate - 63.9%; the number of head injuries and injuries increased significantly - 38.5%, mainly due to mine injuries [4].

The effectiveness of the military medical service in the conditions of the combat operations, in addition to organizational components, staffing of medical units, their learning and training are also affects, as well as the provision of modern medical supplies. The effective care of the wounded and sick is possible only with the clear coordination and interaction of the medical institutions with the authorities, technical and administrative services in the area of armed conflict. That is why, the main task of the medical service in a case of mass sanitary losses is the medical sorting of victims, the possibility and the sequence of transportation taking into the account of the following stages of providing qualified and specialized care. The process of sorting gives preference to those who need to be rescued - who can survive (the amount of damage allows to determine the viability of the victim). This contingent requires the rehabilitation measures in a term of approximate treatment up to 90 days [**Ошибка! Источник ссылки не найден.**].

The aim of the study – studying of the peculiarities of the activities of nurses in the process of providing the medical care of the combatants, in a military hospital conditions .

To achieve this goal, the following **tasks** were solved:

1. To analyze blighty and foreign scientific resources.

2. According to the results of the questionnaire, to analyze the activities of nurses in the therapeutic department of the military hospital, To identify the specific parameters of patient satisfaction with medical care as the main consumer of the results of the hospital staff.

3. To identify the components of the nursing process of the care and supervision of patients in a military hospital.

4. To carry out the statistical processing of research results, to formulate the general conclusions, to develop practical recommendations.

Object of the research: nurses, standards of medical procedures, standards of practical skills; patients - the militaries who returned from the anti-terrorist operation zone.

Subject of the research: the quality of the nursing process in providing the medical care for the combatants.

Research methods:

- bibliosemantic - to study the blighty and world experience in the organization of medical care for combatants, the organization and improvement of nursing care;

- medical and sociological - to study the professional competence and level of the services, provided by nurses in a military hospital;

- medical-statistical - for statistical processing of the obtained results of medical-sociological research among the nurses and patients, determination of their statistical reliability.

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MODERN METHODS OF HIV TREATMENT AS A GUARANTEE OF A FULL-QUALITY LIFE

The aim of the study is to investigate the problem of HIV transmission among the population of reproductive age and the most effective ways of its treatment. HIV is a virus that attacks cells in the immune system (the body's natural defense against illness). The virus destroys a type of white blood cell in the immune system called a T-helper cell – also referred to as a CD4 cell – and uses these cells to make copies of itself.

As HIV destroys more CD4 cells and makes more copies of itself, it gradually weakens a person's immune system. This means that someone who has HIV, and isn't taking treatment for it, will find it harder and harder to fight off infections and diseases.

If HIV is left untreated, it may take up to 10 or 15 years for the immune system to be so severely damaged that it can no longer defend itself. However, the rate at which HIV progresses varies depending on age, general health and background. HIV can be passed from one person to another via the following bodily fluids: blood, semen (including pre-cum), vaginal fluid, anal mucous, breastmilk. [3]

Finding out you have HIV can be tough. But with treatment and support, people with HIV can live long, healthy, fulfilling lives. Millions of people have HIV. Most people get at least one STD in their lifetime, and having HIV or another STD is nothing to feel ashamed of or embarrassed about.

Finding out that you have HIV can be really upsetting. You might feel mad, embarrassed, scared, or ashamed at first. But you'll probably feel better as time goes by — having a good support system and getting counseling really helps.

Although there's no cure for HIV, there are medicines that help people with HIV live longer, healthier lives. HIV treatment called antiretroviral therapy (ART) lowers the amount of virus in your body (called your viral load).

Some people feel like their love lives are over when they find out they have HIV, but it's just not true. People with HIV can have fulfilling romantic and sexual relationships. People living with HIV can have relationships with partners who don't have HIV (called serodiscordant) or with partners that are also living with HIV (called seroconcordant). HIV treatment helps keep you healthy and helps you avoid passing HIV to someone else. If your partner does not have HIV, they can also take a medicine called PrEP that can help protect them from getting HIV.

It's important to tell your sexual partners about your HIV status. That way, you and your partners can make more informed decisions about testing, and treatment that are right for the both of you.

It's normal to be worried about how your partner's going to react. And there's no way around it: some people might get freaked out. If that happens, try to stay calm and talk about your plan to stay healthy and how they can stay HIV negative. It might help to give your partner a little time and space to process. You could also suggest they talk with your HIV doctor about ways to protect themselves from HIV.

If you tell someone you have HIV and they hurt you, shame you, or make you feel bad, it's not ok. You deserve to be with someone who respects and cares about you, and there are plenty of people out there who will.

Babies can get infected with HIV during pregnancy, birth, or breastfeeding — that's why it's recommended that everyone get tested early in pregnancy. If you have HIV, antiretroviral medications greatly lower your chances of giving HIV to your baby. With treatment, less than 2 out of 100 babies born to women with HIV will be infected. Without treatment, about 25 out of 100 babies will be infected. [1]

Antiretroviral medications can help to slow damage caused by HIV infection and prevent it from developing into stage 3 HIV, or AIDS.

A healthcare provider will recommend undergoing antiretroviral therapy. This treatment requires taking three or more antiretroviral medications daily. The combination helps suppress the amount of HIV in the body (the viral load).

Though the outlook has gotten much better for those with HIV, there are still some long-term effects that they might experience. People living with HIV may begin to develop certain side effects of treatment or HIV itself. These may include: accelerated aging, cognitive impairment, inflammation-related complications, effects on lipid levels, cancer. The body may also undergo a shift in how it processes sugars and fats. This can lead to having more fat in certain areas of the body, which can change the body's shape. However, these physical symptoms are more common with older HIV medications. Newer treatments have far fewer, if any, of these symptoms affecting physical appearance.

If treated poorly or left untreated, HIV infection can develop into stage 3 HIV, or AIDS. A person develops stage 3 HIV when their immune system is too weak to defend their body against infections. A healthcare provider will likely diagnose stage 3 HIV if the number of certain white blood cells (CD4 cells) in an HIV-positive person's immune system drops below 200 cells per mL of blood.

Life expectancy is different for every person living with stage 3 HIV. Some people may die within months of this diagnosis, but the majority can live fairly healthy lives with regular antiretroviral therapy. [2]

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