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INTRODUCTION

Dear colleagues, authors and readers of the Scientific Journal of Polonia University (PNAP – *Periodyk Naukowy Akademii Polonijnej*)!

Congratulation on the release of a new PNAP 50 (2022)!

In this issue we are presenting scientific articles, which deal with urgent problems of language, culture, communication, and education, as well as innovations and sociology, issues on health and technology, development.

The collected papers in language, culture, and communication are focused on actual issues of intercultural peculiarities of languages, stylistics, and literary studies. Special attention has been paid to the investigation of theoretical foundations and directions of research concepts in language in general. Among them an empirical study of the cultural awareness of Hungarian students concerning the UK and the USA, A new insight has been gained into metaphorical allusion in military political discourse, phraseological combinations with the numerical component in lexico-semantic and translation aspects, non-conjunction phrases in formal and grammatical background.

In the education domain much attention is concentrated on the development of a methodological system of teaching physics and other professionally oriented disciplines of the court of contribution, stem-education principles in the foreign-language communicative competence building (on the data of non-language major students), innovative projects and stem education in personality development through the prism of all links of education in Ukraine, implementation of a personality-oriented approach in higher education in France.

Interesting and innovative are considerations on the problem of pedagogical evaluation of the motivational and voluntary components of professional readiness of future pilots of tactical aviation for combat flights, choral performance in a pandemic in terms of modern solutions, as well as investigation of the specific features of musical culture and education in Southern Ukraine in the 2nd half of the 19th – beginning of the 20th century, artistic potential of junior schoolchildren emotional intelligence of formative assessment as effective classroom practice.

Authors in the sphere of innovation, work, society elicit regulation of the development of language of national minorities in Ukraine, the problems of ensuring human rights to public services for the residents of the united territorial communities of Ukraine. Special attention has been paid to theoretical aspects of Russian aggression in Ukraine (*teoretyczne aspekty analizy rosyjskiej agresji na Ukrainę*) and current threats near the borders of Ukraine and their possible consequences.

The scientific issue also contains theoretical, empirical and/or practical researches in health and related disciplines, such as application of psycho-hygienic measures to optimize learning conditions, professional training of teachers in basics of health care, features of reproductive function in women with miscarriages, morphological features of tumour angiogenesis in invasive ductal breast cancer.

PNAP also presents interesting observations in the realm of technology, creativity, implementation, such as theoretical basis of the development of effective parameters of a combined conveyor transport for moving waste mechanical processing and intelligent system for automation search of public transport routes.

We really appreciate all the articles that have already been sent to PNAP, and those, which are going to be submitted to our journal. We would also like to express our particular gratitude to all the members of the Editorial Board, to the reviewers, and to those who kindly accepted our proposal to work together and contribute to the creation and further development of PNAP.

Mirosława Skalik

LANGUAGE, CULTURE, COMMUNICATION**TO KILL TWO BIRDS WITH ONE STONE:
PHRASEOLOGICAL EXPRESSIONS WITH SACRED NUMBERS
IN ENGLISH, HUNGARIAN, AND UKRAINIAN****Viktória Albert**Ph.D., Kodolányi János University, Hungary
e-mail: dr.albertviki@gmail.com, orcid.org/0000-0001-7059-3946**Summary**

The paper is devoted to the identification and interpretation of some common and unique features of the phraseological expressions, or idioms, with numeric component in their formations in the English, Hungarian, and Ukrainian languages. In the course of analysis, various groups of meanings of these numbers found in these units are distinguished which accurately reflect the given nation's culture, beliefs, identity, mentality, folklore and provide a deeper insight into the link between language and culture. Moreover, the present study further outlines some challenging points for both non-native speakers and translators when dealing with culture-specific set expressions in a foreign language based on semantic and structural differences.

Keywords: phraseological expression (unit), symbolism, numbers, culture.

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1. Introduction

A language and its speakers are born, evolve, and mature simultaneously in a perfect symbiosis, mutually affecting and moulding each other. As once Heraclitus (c. 540 BCE – c. 480 BCE) put it: “The only thing that is constant is change” meaning that everything is in motion, everything changes, and these changes are interdependent. Being a dynamic system, language shapes the way we think and perceive the world around us. Similarly, its speakers wishing to satisfy their communicative needs create the lexical storehouse which reflects the spirit and unfaded beauty of their native language.

People live in the world of symbols from prehistoric times. The word 'symbol' evokes in a contemporary person not only a series of abstract meanings or concrete imaginations, associations, images, but also a feeling of something mysterious, furtive, and secret as regards their surroundings and inner world. Some symbols are used consciously, others – unconsciously or subconsciously.

It has been long established that in the Paleolithic period people attributed symbolic meaning to almost everything: constellations, herbs, animals, or numbers. During the Neolithic period, symbolism received a deeper and wider interpretation. First religions and arts could not exist without them. It is considered that symbolism began to flourish exactly in early agricultural tribes which inhabited South-Eastern Europe and a part of Asia between 10,000-4,000 BC.

It is obvious that the peculiarities of the language are better revealed in phraseological expressions which are stable formations made according to a definite pattern and are reproduced in a ready-made form suggesting that they are not created every time to fit the situation (Kunin, 1984: 7-10). Naturally, numbers and their symbolic meanings found their realization in phraseological expressions which are the product of the long history of mankind and reflect certain features pertaining to one's culture, traditions, customs, mentality, and lifestyle. These phrasemes help to (re)create the national and cultural picture of the world as they are passed on from generation to generation, each conveying symbolic meaning.

Earlier, the European and American linguistic literature there were few works devoted to the theory of phraseology whereas the phraseological material was generously presented in numerous dictionaries and phrasebooks (Bilonozhenko, 1999; Brewer, 2012; Radford, 1946; Nagy, 1979; Kunin, 1984; Subbotina, 2012). However, presently, the problems of phraseology have found a wide interpretation in grammar in stylistics, cultural linguistics, lexicography, language history, translation, and intercultural communication. In addition, phraseological units containing numbers have been just recently compared in numerous languages, such as Russian and Serbian (Andreici, 2017), Russian and Tatar (Zagidulina et al., 2018), Kazakh and English (Dossymbekova, 2016), English and Albanian (Robo, 2013), just to name a few.

Therefore, the main *objectives* of this article are to classify and trace the usage of numbers reflected in the phraseological expressions of modern English, Hungarian, and Ukrainian according to the peculiarities of their symbolic significance as well as to provide a contrastive analysis of their semantic meaning.

The linguistic data have been collected from the following dictionaries and phrasebooks: "English-Russian phraseological dictionary" (Kunin, 1984), "The Phraseological Dictionary of the Ukrainian Language" (Bilonozhenko, 1999), and "Magyar szólások és közmondások" (Nagy, 1976). During the current research 594 phraseological expressions have been collected, classified, and analysed (see Table 1. below).

The main *methods* of analysis applied in the research are quantitative, qualitative, contrastive, and descriptive.

2. The representation of numbers from one to ten in phraseological expressions in English, Hungarian, and Ukrainian

In this paper the first ten numbers have been chosen as they are regarded as the most productive and Table 1. demonstrates that all numbers except 'eight' and 'ten' are quite well represented in all three languages. In this connection, Andreici (2017: 101) states that although the belief in the magic powers of numbers may still be present in some areas; yet, in many cases, these expressions have become so common that they are no longer used with any regard to magic powers or symbolism.

Table 1

The occurrence of numbers with sacred meaning in phraseological expressions

Numbers	one	Two	three	four	five	six	seven	eight	nine	ten	Total
English	69	43	14	7	5	3	5	5	14	5	170
Hungarian	79	39	6	3	6	22	12	3	5	-	175
Ukrainian	139	49	21	6	5	1	19	-	1	8	249

Number 'one'. In symbolism 'one' means existence, being, the revealing of the spiritual essence of the mystic Centre, the Paramount Strength. This number was also a symbol of spiritual unity, and divinity and was associated with the light (Cirlot, 2020).

Thence, due to the above-mentioned qualities of this number, four distinct groups can be singled out based on their symbolic meanings, such as:

(i) 'unity, sameness, priority, or equality' which may carry either a positive or a negative meaning referring to people's thoughts, feelings, and behaviour: *one and only; one and all; one dog, one bull* ('fair play' and derives from Shakespeare and bullbaiting days. Only one dog was allowed to be loosened on the bull at a time, hence the phrase which is even now used extensively among miners in the North of England) (Radford, 1946: 169); *to be at one with something; hard on one string; with one accord; one big happy family; egy húron pendülnek* (to play on one string); *egy kanállal esznek* (to eat with one spoon); *egy iskolába járnak* (to go to one/same school); *mintha egy szájból köpték volna* (alike as if they were spat from one mouth); *однієї (одної) масті* (of one and the same breed); *одного гніздечка птаці* (one bird's nest); *одного поля ягода* (one field's berries); *один від одного недалеко відбіг* (they ran not far from one another); *одним духом дихати* (to breathe with one spirit); *як одна душа* (as one soul); *як один* (as one); *співати однієї й тієї ж* (to sing one and the same song); *на одній ноті* (on one note).

The expression '*egy füst alatt*' (literally, under one smoke) is also observed in Slovak, German, Latin, or Finnish and has an interesting origin. Back in the day, not only did people consider the 'family bonfire' to be the symbol of home but also its smoke. The ancient houses were built without chimneys, and the smoke could escape the house through different holes and cracks, but the greater amount of smoke clouds was still hanging above the heads of the family members who gathered by that fire. Overtime, this expression's meaning further evolved and has come to mean 'to do something in one sitting' or 'to do something in one go' (Nagy, 1979: 144).

(ii) 'swiftness, immediacy, and closeness' is richly represented in all the three languages: *all at once; at once; give somebody / something the once-over; one foot in the grave; egyszer mondom, kétszer ugorj* ('I say once and you are twice to jump!' says an indignant parent to a misbehaving child); *egy a vezényszó, egy a végrehajtás* (one is the order and one is an immediate fulfilment); *egyszer fent (fenn), másszor lent* (once up and then down); *за одну мить* (in one instant); *один крок від чогось* (one step from something); *одна нога тут, а друга там* (one foot here and the other there); *за одним присідом* (in one squat); *душа на одній нитці держиться* (the soul is held on one thread).

(iii) 'something being (in)sufficient': *the first stroke is half the battle; one dog sets all the street a-barking; egy jó álom mindent helyrehoz* (one good and sound sleep will fix everything), *egy kápolna nem templom* (one chapel is not a church yet); *ahol egy van, ott egy sincs* (where there is one, there is nothing, i.e., one thing can be easily lost or damaged); *egy szegre ne akassz mindent* (do not hang everything on one nail, which corresponds to *do not put all your eggs in one basket*); *egy kenyérért nem fűtik be a kemencét* (an oven is not heated for one bread); *залишатися в одній сорочці* (to remain in one shirt).

(iv) 'priority, importance, uniqueness, beginnings, having the best quality': *first come, first served; the first man; the first night; one cloud is enough to eclipse all the sun; one link is broken, the whole chain is broken; első boldogság az ész* (the first happiness is a good wit); *első az igazság* (the truth should always be the first); *jobb egy Isten száz papnál* (one God is better than 100 popes); *a Szentháromság után az első személy* (he is the first person after the Holy Trinity); *sok ördög sem ér egy angyalt* (a lot of devils are not worth one angel); *перша скрипка* (first violin); *проблема номер один* (problem number one); *тримати першість* (to be number one, i.e., be the champion).

Number 'two' stands for echo, reflection, conflict, or equilibrium. This number also corresponds to the passing of time, and in esoteric tradition number two was regarded as ominous, as something evil: it meant shadow, dualism, two opposite poles of good and evil, or life and death (Cirlot, 2020).

In this regard, the following six groups have been detected:

(i) 'conflict, contradiction, as something secondary in quality and importance' is observed in all the three languages: *two of a trade never agree; two blacks do not make a white; when two ride on one horse, one must sit behind; two dogs over one bone seldom agree; első a munka, a második a pihenés* (first comes the job, the second comes the leisure time); *nem jó egy kocsmában két dudás* (it is bad to have two pipers in one pub); *egy házban két gazda* (two masters in one household); *minden botnak kettő a vége* (every stick has two ends); *egy konyhában két szakács* (two cooks in one kitchen); *палиця з двома кінцями* (a stick with two ends); *два боки однієї медали* (two sides of one / the same medal, which is close to *two sides of the same coin*); *відійти на другий план* (recede into the background); *в одне вухо впускає, а в друге выпускає* (in one ear and out the other).

(ii) 'minimum or maximum quantity, distance, or immediacy': *two or three; second thoughts are best; a bird in the hand is worth two in the bush; jobb ma nekem egy-kettő, mint holnap tizenkettő* (it is better to have one or two than twelve tomorrow); *kettőre se felel egyet* (he does not give even one answer to two questions, which is used for a quiet, taciturn person); *egy-kettő* (one-two, i.e., immediately); *раз-два* (one-two); *у двох словах* (literally, in two words, *in a nutshell*).

(iii) 'simultaneousness and sameness': *in two; by two* (also *two and two; two by two*); *of two evils choose the lesser; egy csapásra két legyet* (two flies with one hit); *két ebszarnak egy a bűze* (two dogs' excrements stink alike); *між двох вогнів* (between two fires); *за двома зайцями ганяти* (to chase two hares); *на два фронти* (on two fronts, i.e., *on all fronts*); *сидіти між двох стільців* (to sit between two chairs, i.e., *fall between two stools*).

(iv) 'unity, integrity, wholeness': *two in distress makes sorrow less; two heads are better than one; two negatives make a positive; kettőn áll a vásár* (a bargain stands on two); *два чоботу пара* (two boots is a pair and is used to describe people who are close).

(v) 'multitude': some examples can be found in Ukrainian and Hungarian, such as *megmutatom neki, hogy hány a kettő!* (I shall show him how many two is! i.e., I shall teach him); *se nem egy, se nem kettő* (not one and not two, i.e., many); *двоїтися в очах* (the eyes see double).

(vi) 'simplicity': *two and two make four; put two and two together; annyi, mint kétszer kettő* (so simple, like two times two); *як двічі два чотирьох* (like two times two is four); *як двічі но два* (like two times two).

Pythagoras calls the **number 'three'** the perfect number, since "it represents the solution of the conflict posed by dualism" (Cirlot, 2020). It is also perceived as a spiritual symbol expressing the beginning, the middle, and the end (Brewer, 2012: 1099), and is associated with the concept of heaven and the Trinity (Cirlot, 2020). Furthermore, it stands for happiness, wealth, protection, and healing (Potapenko, 1997: 129). A person is threefold (body, mind, and spirit), and so is the world (earth, water, and air), the enemies (the world, the flesh, and the devil); the Christian graces (Faith, Hope, and Charity); the Kingdoms of Nature (flora, fauna, and minerals), and the cardinal colours (red, yellow, and blue) (Brewer, 2012: 1097). Besides, the World Tree has a structure of three elements: the heavens, the terrestrial world, and the underworld.

Long before the introduction of Christianity, this number had been often used in Slavic folklore. There, as usual, appear three sons, three daughters, three years, three ways, three kingdoms, or three mountains. The systematic repetition of this number is observed in wedding, birth, and funeral ceremonies and rituals.

Based on the above-mentioned symbolic meanings of this number, three large groups are distinguished based on the collected data expressing:

(i) 'a group or a company' is detected in English and Hungarian: *when three know it, all know it; the three tailors of Tooley Street* (i.e., a comparatively small group of people considering themselves to be the representatives of the whole mankind. Canning (1770-1827), an English politician, witnessed when three tailors of Tooley Street appealed to the Parliament with a petition beginning with the following words: "We, the people of England ..."); *három asszony kész vásár* (it takes three women to make a bargain); *egy tudja, titkos, kettő tudja, homályos, három tudja, vilagos*; or *amit három tud, nem titok* (what one knows is a secret, what two know is something obscure, what three know, the whole world knows).

(ii) 'annoyance with the implication of physical injury' and finds its main representation in Ukrainian: *to give somebody the third degree* (i.e., to question somebody intensively for a long time, perhaps also using physical methods of torture to make them confess to a crime or give secret information); *hosszú, mint a hármás tánc* (as long and annoying as three dances); *знати в три шиї* (literally, to chase in three necks meaning make somebody leave); *спустити три шкуру* (to strip the three layers of skins, i.e., to hit somebody hard); *викинути у три вирви* (to throw in three ditches, i.e., to chase away).

(iii) 'threefoldness of a process, triunity': *three cheers* (to shout 'hurray' three times to show admiration or support for somebody or something); *three souls* (metaphysicians say that a man has concentrated within himself three origins: that of herbs, animals and homo sapiens); *the three readings*; *három a szent szám* (three is a holy number); *három az igazság* (three is the truth); *háromszor iszik a magyar* (the Hungarian drinks three times).

Number 'four' is well depicted in mythology, religion, philosophy, and linguistics. It is the symbol of the world, the earthly space and is equated to a quadrant or a cross which represents the four seasons and four parts of the world (Cirlot, 2020: 577).

The collected phraseological units with 'four' can be divided into two groups meaning:

(i) 'fourfoldness of the whole' is observed in English and Ukrainian only: *from the four corners of the Earth; within the four seas; four corners; іди на всі чотирі сторони / вітри* (go in all four directions/winds is a swearing expression which is similar to *go to hell*).

(ii) 'flaws and perfections': *four eyes see more than two; nincs ki a négy kereke* (he does not have four wheels, i.e., he is stupid); *a lónak négy lába van, mégis megbotlik* (a horse has four legs, but it can stumble all the same); *a négylábu is botlik* (a four-legged stumbles too); *кований на всі чотирі ноги* (all four legs are forged, i.e., very experienced); *в чотирі ока* (with four eyes, i.e., to watch carefully, to keep an eye on something).

Number 'five' symbolizes a person (four limbs of the body plus the head which controls them), health, and love (Cirlot, 2020). Moreover, it is associated with the five senses (hearing, sight, smell, taste, and touch); and the five wits (common sense, imagination, fantasy, estimation, and memory) (Brewer, 2012: 427).

In relation to the symbolic meanings of 'five', the collected phraseological units split into three groups:

(i) 'completeness and perfection': *the five wits, tudja mint az öt ujját* (knows as his own five fingers, i.e., to know something like the back of one's hand); *beadta az ötöt, ki kell tölteni*

a *hatot* (if you promised to do something for five, do it for six); *знати як своїх п'ять пальців* (to know something as well as your five fingers, i.e., to know something/body very well).

(ii) 'redundancy and unimportance': *the fifth wheel*; *ötödik kerék a kocsiiban* (the fifth wheel in the cart); *як п'ять колесо до воза* (like the fifth wheel to a cart); *як собаці п'ять нога* (like a dog with five legs). Identical phrases are common in German: *das fünfte Rad am Wagen*, French: *la cinquième roue du carrosse* and other languages.

(iii) refers to physical attributes and human nature: *a bunch of fives* (meaning a punch); *ötön vész* (to take something with five i.e., to steal); *ötön vette Kotoriban* (he bought it for five in Kotori, i.e., to steal); *kap egy magyar ötöst* (to get a Hungarian 'five', i.e., to get a slap in the face).

Number 'six' symbolises both ambivalence and balance, comprises the union of two triangles and signifies the human soul. It also corresponds to the cessation of movement as the Creation lasted six days, hence it is associated with experience, trial, and effort (*Cirlot, 2020*) as well as with love, harmony, fidelity, reliability, and fairness.

The collected phraseological units with the number 'six' are divided into three groups expressing:

(i) 'multitude, intensity, completeness': *to knock somebody or something for six* (to destroy completely); *six feet under* (dead and buried); *ki hat mesterséget tud, éhen hal az meg* (a person who knows six trades will die of hunger); *hatször is megolvassa a pénzt* (he will recount his money six times); *hat gyűrűje egy ujján* (six rings on one finger); *úgy dolgozik mint hat* (he works like six i.e., giving the work all his energy); *hat ház nem falu* (six houses is not a village yet); *всунати по шосте число* (literally, to hit somebody to the sixth number i.e., to punish severely).

(ii) 'likeness, equality, and sameness': *it is six of one and half a dozen of the other*.

(iii) 'luck, fortune, happiness': *olyat aludtam mint a hat* (I have slept like a six i.e., to have a good sound sleep); *hatot vet a kocka* (the dice shows a six i.e., somebody has luck); *egynek hatot, másnak vakot vet a világ kockája* (for one it is six i.e., everything, for the other – nothing).

Number 'seven' is endowed with exceptional value and is correlated with perfect order, full period, or cycle. It corresponds to seven Directions of Space and forms the basic series of musical notes (*Cirlot, 2020*). In addition, this number refers to the main Seven Gifts of the Spirit (wisdom, understanding, counsel, fortitude, knowledge, righteousness, fear of the Lord); the seven senses are animation, feeling, speech, taste, sight, hearing, and smelling (*Brewer, 2012: 1004*); the Seven Wonders of the World, and the Seven Deadly Sins (*Radford, 1946: 192*).

According to its symbolic meaning, three distinct groups can be observed, such as:

(i) 'luck, happiness': *in seventh heaven*; *once in seven years* (i.e., once in seven years even the worst farmers have the best crops); *rain before seven, fine before eleven*; *olyan boldog voltam, hogy a hetedik menyországban éreztem magam* (I was so happy that it felt like being in seventh heaven); *hetedik gyermek* (the seventh child is believed to be lucky and can see even the hidden treasure); *Isten is megpihent a hetedik napon* (God also took a rest on the seventh day); *на сьомому небі* (in seventh heaven).

As it can be seen, 'to be in seventh heaven' occurs in all the three languages and means 'to be extremely happy'. Its first appearance is recorded in the *Testament of the Twelve Patriarchs* and refers to the highest place where God resides.

(ii) 'evil, misfortune, curse': *the seven-year itch* (i.e., the wish for a new sexual partner because you are bored with your present husband or wife); *one lie needs seven lies to wait upon*

it; hová lép, hét évig ott fű nem nő (i.e., where he treads, there the grass does not grow for seven years); *hét bőre van mint a cigánynak* (he has seven layers of skin like a gipsy and means 'being impudent and arrogant'); *hetesével jár a rossz* (i.e., something bad goes with seven i.e., of seven people go somewhere and are up to no good); *хай йому сім чортів* (let him have seven devils is used as a cursing); *як чорт сім кін гороху змолотив* (as if the devil ground seven piles of peas and this phrase is used to describe an ugly face / look); *клясти до сьомого коліна* (to curse up till the seventh generation); *сnyстуми сім шкур* (to flay seven skins means 'to punish severely or hit somebody hard').

Special attention deserves the following expressions: *heten vannak mint gonoszok* (they are seven like the devils) and *sovány mint a hét szűk esztendő* (as undernourished as the seven thin years). *Hetten vannak mint gonoszok* is mainly connected to a superstition according to which the devils were not walking alone but walked together, in a group of seven. *Sovány mint a hét szűk esztendő* has a biblical origin. Joseph, Jacob's son, being imprisoned in Egypt, was the one who managed to explain the pharaoh's dream. In his dream the pharaoh, initially, saw seven thick and big cows and then seven lean cows: those seven skinny and ugly cows gobbled those seven thick cows. Then again, the pharaoh had another dream in which seven full and nice ears of corn were gobbled by seven thin corns. Nobody could explain the dream but Joseph: seven thick cows and seven nice ears of corn meant seven rich and prosperous years. However, those seven skinny cows and seven thin ears of corn meant that seven thin years would follow those prosperous years. There also would not be rain, the animals would die of thirst and hunger; the harvest would be very poor. Therefore, Joseph advised making a good store of food and water which would save the citizens (Nagy, 1979: 139).

True to their nature, people spoke very little about the seven prosperous years; whereas people talked a lot about those seven bad years since those hardships remained deep in their memories, and that is why it gave way to the appearance of *seven thin years*.

(iii) 'reliability and security': *hétszer mérj, egyszer vágj* (measure seven times and cut off once); *hétszer nézzünk, egyszer csináljunk* (one should look at something seven times before doing something); *nið cimoma замкаму* (under seven locks, which corresponds to *under lock and key*). For instance, *za cimoma nečamkamu* (literally, a book with seven seals meaning *a closed book*) has a biblical origin and "refers to secrets known only by the Great Creator" (Andreici, 2017: 94). This is the reason why it has proliferated in other languages as well.

Number 'eight'. Owing to its shape this number is associated with two interlacing serpents symbolizing the balance of the opposing forces or the equivalence of the spiritual to the natural power (Cirlot, 2020). Besides, it has some negative implications in both English and Hungarian: *behind the eight ball*; *one over the eight*; *megmutatja valakinek hány a nyolc!* (to show somebody how many eight is i.e., to teach somebody manners); and *ez nekem nyolc* (this is eight to me meaning 'I do not care').

Number 'nine' is the triplication of the three. In Judaism, it was the symbol of justice, entity and protection from evil (Cirlot, 2020). The holiness of the number 'nine' was associated with the nine months of pregnancy. In fables and myths, one may encounter nine-headed snakes or hydras. According to the beliefs of some tribes, thunder was sent by nine gods. In Dante's inferno, there are nine circles of hell.

In Ukraine, this number is present in an array of different rituals. In the Carpathians, the bread loaf was made of nine smaller loaves. In Polissya, after the engagement ceremony, nine pies were baked which were given to the bride. The reference to this number can be found in medicine as well. For instance, in Poltava and Dnipropetrovsk, sick people were bathed in the waters of nine fords or drank the liquor made of nine kinds of herbs.

Based on the meanings of the collected expressions, 'nine' can express:

(i) 'multitude': *a stitch in time saves nine* (if you act immediately when something goes wrong it will save you a lot more work later otherwise the problem will worsen); *aj baj, kilenc tehén, még sincs vaj* (oh, that is trouble when there are nine cows but there is no butter); *megbanta mint az eb, mely egyszerre kilencet fiadzott* (regrets as that dog which whelped nine puppies at a time); *békés malacai egy olban kilencen is elférnek* (even nine peaceful pigs can fit in one pigsty). *дев'ямуї вал* (the ninth wave).

(ii) 'closeness to the summit': *on cloud nine*; *dressed up to the nines*; *touch it off to the nines*; *a cat has nine lives* (refers to the care which a cat takes of itself. Its caution, its suspicious approach to anything unknown or unrecognized, its tenacity in life, its resilience, and the habit of always falling on its feet and avoiding bodily injury, all serve to lengthen its life span) (*Radford, 1946: 106*); *nine tailors make a man* ('tailors' is a corruption of 'tellers'. A 'teller' was the stroke of the church bell in case of death: three strokes (tellers) indicated the death of a child, six of a woman, and nine of a man (*ibid.: 162*); *a nine days' wonder* (of a person or thing that attracts a lot of attention, but only for a short period of time); *kilenc vármegyében nincs párja* (there is no match for her or him in nine counties); *már megint utólért a kilencednap?* (i.e., Does the ninth day again catch up with you? which is used for a quarrelsome person).

Number 'ten' denotes the comeback to unity and, consequently, to number 'one' (10: 1+0=1). According to some theories, it symbolizes the integrity of the universe as it brings everything back to unity and perfection (*Cirlot, 2020: 579*).

Phraseological expressions with 'ten' are also classified into two groups:

(i) 'top intensity, to the limits' and is represented in English and Ukrainian: *the top ten*; *the ten commandments*; *ten to one*; *the upper ten*; *здираати десяту шкуру* (to peel off the tenth skin, i.e., to torture); *до десятого поту* (till the tenth sweat, i.e., to work arduously).

(ii) 'remoteness, insignificance' is found in Ukrainian only: *в десятому коліні* (the tenth relation is used for a very remote relative); *із десятих рук* (from the tenth hand means unreliable, insignificant); or *обминати десятою дорогою* (to avoid something or somebody by picking the tenth alternative route).

From the above-listed expressions, it is evident that "the image becomes a symbol through its function in a person's life, in the life of a society, country, religious or cultural community and, finally, in the life of the whole mankind" (*Kononenko, 1991: 31*). It happens because of the similarity of nature, and the psychology of a man, even though they are also oriented towards a definite community. The verbal symbolism of people is an important factor in the creation of the national and cultural picture of the world, whereas even some individual symbols are influenced by the peculiarities of the language.

As seen, phraseological units tend to be used according to the accepted formula because of their integral and general meaning. Some expressions are universal and can be traced in all the three languages, whereas some of them are quite specific and unique. Therefore, understanding and using them correctly can be quite challenging for non-natives and translators (*Mykhaylenko, 2019: 69*). In fact, it is essential that those units be defined in the text correctly; consequently, finding the best equivalent should be the translator's top priority (*Subbotina, 2012*). Translators must be very careful and refer to phraseological dictionaries in the first place. In case, the phrase is not there, the translator must comprehend the context and choose one of the translation methods: descriptive translation or translation by analogues (*Mykhaylenko, 2019: 70*). At the same time, Mykhaylenko warns against 'domestication' of those units since it may result in the loss of essential cultural information which can confuse the reader (*ibid.*) and lead to improper reinterpretation or interlingual interference (*Dossymbakova, 2016*).

In light of the above-mentioned facts, of special interest are the transformations of key symbols into nationally specified: *három a magyar igazság* (three is a Hungarian verity). Only in the middle of the last century did this proverb appear in Hungarian and immediately gained popularity. This expression is a free translation of a Latin proverb: *Omne trinum perfectum* (that is perfect what is three). *Három a magyar igazság* does not at all mean that only Hungarians consider this number to be holy and the property of their own. They have transformed and adapted this proverb attributing to it some national colouring just for the sake of emphasis as it often occurs in their folktales, in which three children are involved or three wild animals should be killed or something should be obtained during the interval of three days (Nagy, 1979: 224).

3. Contrastive analysis of structure and semantics of phraseological units with numbers

Kunin distinguishes different types of stability of phraseological units based on their usage, semantic, lexical, and syntactic stability (Kunin, 1984: 10). Comparing the studied expressions, some phraseological equivalents have been detected which can be of two types: mono-equivalents and sampled phraseological equivalents (*ibid.*).

1. Monoequivalent is the only possible phraseological equivalent that can be **absolute** and **partial**.

Absolute phraseological equivalents are those which have an equal meaning, lexical structure, imagery, the same stylistic and grammatical structure. For instance, *first violin = első hegedű = перша скрипка*; *first thing = első dolog = першим ділом*; *first steps = első lépések = перші кроки*; *at first sight = első látásra = з першого погляду*; *one God knows = egy Isten tudja = один Бог (Господь) знає*; *second breath = második lehelet = друге дихання*; *when three know it, all know it = amit három tudja, világos = що відомо трьом, відомо всім*; *in the seventh heaven = a hetedik mennyországban = на сьомому небі*; *measure seven times and cut off once = hétszer mérdj, egyszer vágj = сім раз відміряй, один раз відріж*.

Partial phraseological equivalents are those which have some lexical, grammatical or lexico-grammatical divergencies but as regards their stylistic meaning, they are equal: *one swallow does not make a summer ≈ egy fecske nem tavasz (= spring) or egy fecske nem csinal nyarat (= summer) ≈ одна ластівка не робить весну (= spring)*; *to kill two birds with one stone ≈ egy csapasra két legyet (two flies with one hit) ≈ вбити двох зайців одним пострілом (to kill two hares with one shot)*; *two and two make four ≈ kétszer kettő négy (two by two is four) ≈ два плюс два чотири (two plus two equals four)*.

2. Sampled phraseological equivalents occur when a phrase has a different equivalent in other languages, so the translator must choose the best one to make it work in a certain context: *olyan mintha kettőig sem tudná számolni* (i.e., he looks as if he were not able to count to two) – *he looks as if butter would not melt in his mouth*; *one man no man – один у полі не воїн* (a single man on the battlefield is not a soldier yet); *two in distress make sorrow less – поділене горе – це нізгоря* (shared grief is half the sorrow); *four eyes see more than two or two heads are better than one – один розум добре, а два краще* (one wit is good, but having two wits is better).

4. Conclusions

The present study has attempted to classify the collected phraseological expressions of modern English, Hungarian, and Ukrainian according to the symbolic meaning of numbers and

to describe their structural and semantic peculiarities. Besides, it has been proved that there exists a strong link between the culture and the language, and numbers used in phrasemes help to reflect the worldview and mentality of a certain culture. In these expressions, numbers often tend to lose their original numeric meaning and acquire a symbolic meaning instead (Zagidulina, 2018: 263).

The first classification of phraseological units based on the symbolic meaning of numbers is rather general and universal as there is an overlap in the interpretation of symbols in the studied languages. This classification reflects the most general associations and approaches to the understanding of the world which is similar to all representatives of the mentioned languages and does not always reflect the specific features of the mentality of people of definite nations.

Furthermore, their categorization demonstrates that oftentimes one and the same number can express different symbolic meanings as well as one and the same symbolic meaning can be expressed via different numbers. For example, the number 'one' as well as numbers 'two' and 'six' symbolize equality and sameness – *with one accord, монтатися на одному місці, egy huron pendülnek; два чоботу – пара; it is six of one and half a dozen of the other*. Numbers 'one' and 'two' symbolize importance: *first come, first served; проблема номер один; első boldogság a jó ész; two heads are better than one; kettőn áll a vásár*. To express cursing with implication of physical injury, numbers 'three', 'seven', 'eight', 'ten', 'eleven', and 'thirteen' are used: *to give somebody the third degree; rosszabb a hetes esőnél; megtudja, hány a nyolc; спустити три шкури; даму під сьоме ребро; здирати десяту шкуру; до десятого поту; чортова дюжина* and so on.

Conversely, some meanings of numbers do not necessarily coincide in the contrasted languages. It happens because every language is unique and so is the perception of the world by its speakers. Fairly often, one must be familiar with the story behind those expressions in order to understand and use these units properly in conversation. Translators in this case must be creative and turn to various ways of rendering these phrases accurately and consistently.

Finally, this topic can be further developed and studied from the historical perspective based on the material of more languages involving other numbers as it can provide a more comprehensive answer about the worldview of its speakers.

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CHORAL PERFORMANCE IN A PANDEMIC: MODERN SOLUTIONS AND PROSPECTS

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Summary

The article is devoted to the research of new forms of organization of remote work in choirs. With the introduction of quarantine restrictions, the rhythm of life has changed significantly, which has led to the search for new forms and methods of work. Various methods of introduction of the newest technologies in music education of different levels are considered. The experience of using new teaching methods in professional and educational choirs in schools and universities is analyzed. The influence of new forms of choral creativity on Ukrainian culture in general is determined. Eric Whitaker's experience in organizing the world's first virtual choir as an international art project has been studied. Professional, amateur and educational choirs in the pandemic were forced to look for new forms of work organization. This was the impetus for the introduction of new forms of work. A characteristic feature of remote choral rehearsal is the shift of emphasis from collective to individual performance. Awareness of oneself as an integral part of the whole characterizes the positive consequences of remote work. Among the negative consequences of remote work, we can identify low efficiency, depression as a result of loneliness, deterioration of the quality of the material. The unification of singers into virtual choirs has become a new wave in the modern cultural process of Ukraine and the world.

Keywords: remote work, virtual choir, methods, training, cultural process.

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1. Introduction

As a result of quarantine measures, millions of people around the world are in self-isolation, whether voluntary or forced. For many, remote work becomes a real challenge, as the usual rhythm of life changes dramatically.

With the beginning of the coronavirus pandemic in the world in 2019, our lives have changed dramatically. The restrictions imposed by the WHO affected all spheres of life, but the quarantine most severely affected the arts – a field of life that cannot be imagined without the interaction of performers and listeners, actors and spectators, artists and the public. Today the world has moved to another dimension, from the real to the virtual, digital, on-line mode. The process of communication, interaction through the monitor screen limits our ability to interact, express our emotions and get impressions. In the age of the Internet, this “moment of art creation” is almost eliminated, because, unfortunately, it is quite difficult to feel one with art when watching videos on YouTube at home on the couch. It is another thing to sit in the majestic hall of the Opera House, which is over a hundred years old, and wait, breathtaking, for the climax of Habanera's aria Carmen in Bizet's opera.

Today the problem of innovative methods and techniques of music education is very acute. World events are forcing teachers to look for new approaches to teaching, given all the

restrictions imposed by the authorities. Unfortunately, today there is no scientific study that has covered the use of modern digital technologies in working with the choir. The theoretical and methodological basis of the work were the works of Ukrainian and foreign scientists in the field of research of virtual art and distance education. Modern Ukrainian scientists O. Olkhovska, D. Olkhovsky (*Ivanov et al., 2017: 58–62*), A. Zabolotsky (*Zabolotsky, 2016: 19–23*), Yu. Ivanov (*Ivanov, 2017*), in their research considered the application of computer technologies for distance learning in higher education. Zakhar Duboviy's dissertation investigates distance learning as a set of modern innovative pedagogical and information technologies, including multimedia, network, music and computer, e-learning, blended and blended learning technologies that provide interactive information delivery from teachers to those who are studying (*Oak, 2019: 200*). The issue of virtual choir as a component of distance learning was studied by Ukrainian scientist Lilia Kachurynets, but in her research, she did not study the activities of professional and amateur choirs in the conditions of remote work (*Kachurynets, 2020*).

The purpose of this article is to identify the place of new technologies in the process of remote work of choirs and their impact on the modern cultural process. This determines the following **tasks**:

- To study modern pedagogical methods and principles in distance learning;
- Investigate the practical significance of the introduction of remote work in the performance practice of choirs;
- Identify the positive and negative consequences of remote performance and the use of such a form of work as a virtual choir.

The object of research is modern choral culture in the conditions of remote work.

The subject of analysis is the methods and tools used in remote rehearsals in the context of counteracting the spread of coronavirus infection.

Research methods. The methodology of research of methods and techniques of remote choir work is quite complex. Longitudinal and praxeological approaches were used to study and analyze the process of remote work and the impact of new forms of choral performance on cultural processes in Ukraine.

2. Ukrainian virtual choir

Let's start with the same YouTube service, where today we can find recordings of performances of world opera houses in just two clicks, or even more – watch the play online, along with thousands of other viewers from around the world. Even 20 years ago it was difficult to imagine this, and today we can see the show without leaving home, without traveling to another country, almost free (excluding internet traffic fees), and we can compare performances by different singers, etc. YouTube has become a platform for many art projects.

One of them is a virtual choir in Ukraine, created by Olena Slobodyska, an artist of the Vinnytsia Chamber Choir named after V. Gazinsky, a graduate student and lecturer at the Mykhailo Kotsyubynsky State Pedagogical University. The Virtual Choir in Ukraine art project is a search for new forms of cooperation to support and develop choral art in Ukraine, attract the general public and creative intelligentsia, unite Ukrainians from around the world, and establish creative relations. On May 11, the Virtual Choir in Ukraine art project, which brought together 111 Ukrainians from Italy, Poland, England, Russia and Ukraine, was presented on YouTube. All singers, performing parts of the same work, recorded themselves on video, and the organizers combined everything into one common video clip. Singers from Kyiv choirs and the capital's educational institutions took part in the project. The project is officially registered in the Book of Records of Ukraine as a

national record – the largest virtual choir in Ukraine, which gathered more than a hundred participants. The organizers received a certificate of record holders of Ukraine, and the singers were awarded diplomas.

To date, this art project has three records, the last – Ukrainian Christmas, has gathered 153 Ukrainians from around the world.

The virtual choir performed such works as:

- “Silent Night” (comp. F. Gruber, lyrics by J. Moore) – a Christian Christmas song belonging to the intangible cultural heritage of UNESCO;
- “Immaculate Virgin” – Ukrainian folk carol, which has a cult-religious character;
- “Oh, the peacocks walk” (from the rap. “Picardian third”, music by J. Nudyk) – folk Christmas song;
- “New joy has come” – one of the most famous Ukrainian folk carols;
- “Good evening to you, sir” – a popular Ukrainian folk carol, is a shining example of a close combination of religious and folk carol traditions.

In the third season, the organizer Olena Slobodyska acted as a generator of ideas for finding ways to develop and promote the project, as well as a copywriter. One of such ideas was the registration of the song “Ukraine” in the international competitions “Jiskra” (Czech Republic) and “Constellation Ukraine – Europe”, the victory of which was a pleasant surprise and encouragement for choristers. And also, participation in the International Choral Festival “Perú Canta”, where the project “Virtual Choir in Ukraine” worthily represented our country among fifty groups from around the world. All singers of the previous season received personal diplomas, and the project – a valuable prize – a certificate for € 200 to participate in competitions next year.

Currently, work is underway on 4 projects, where leading soloists are invited, and from the Song Theater “Sources”. The song “Fog by the ravine”, and the soloist will be the author of the arrangement Olga Tokar.

Many Ukrainian choirs have chosen this format of work, and, as we see, it turned out very well.

Here is another example – the chamber choir MORAVSKI – Ukrainian choir, at the charity fund “School of Paul Muravsky”, which was established in September 2017 on the initiative of Honored Artist of Ukraine, choral conductor – Larissa Buhonskaya. The constant leader is a graduate of the Tchaikovsky National Academy of Music of Ukraine (conducting class – L.M. Venediktov), winner of international competitions Olena Radko. Several choral works were recorded during the pandemic. Last year, the world premiere of a joint music project of the Central Conservatory of Music (Beijing) and the Tchaikovsky National Academy of Music of Ukraine in support of medical workers around the world, who save many lives every day in difficult pandemic conditions. NMAU them. P.I. Tchaikovsky, led by Rector Maxim Tymoshenko, supported an international project aimed at raising the morale of the heroes of our time. Joint virtual choir of the Tchaikovsky National Academy of Music of Ukraine and the MV Tchaikovsky National Specialized Music Boarding School. Lysenko recorded Li Xiao Bin’s We for the Beijing Central Conservatory.

Teachers of art schools and universities in Ukraine were also forced to transfer their classes online, and if there were no special problems with individual classes, the choir or ensemble became essentially individual, when the teacher works with each student individually and then combines parties.

The scientific novelty of this article is that for the first time the methods and techniques of remote work with the choir were studied and the influence of the newest art forms on the choral culture of Ukraine was determined.

3. Amateur virtual choirs and their place in the world cultural space

Internet and remote work expand the possibilities of choirs, there are many remote competitions, where you only need to send a video performance (you do not need to go anywhere, which compensates for the cost of quality video – travel and accommodation costs).

But Ukrainians are not the only ones to unite in a virtual choir during the pandemic, for example the Lyon choir performed *Do not Stop Me Now* – a song by the English rock band Queen. Each of the 60 participants recorded their party on a smartphone. Then the installation was done. For several days, Frederick Glass “collected” the composition at home. He was satisfied with the result.

The idea to organize an online choir came from New Yorker Casper Ter Kul. He asked his Twitter followers if they would join him online to learn a few songs. “I’m not a doctor, I’m not involved in any way with the ‘advanced’, but knowing that the best thing to do now is to stay at home, I thought I could do something that would make people happier at home.” he says. Casper teaches everyone involved simple songs, one line at a time. He says that if you are ashamed to sing so that everyone can hear you, you can just turn off your microphone and sing just for yourself. The online choir is held every Sunday through the Zoom video conferencing app. “These songs are a kind of medicine. Medicines for the soul. This is what I wanted to share. True medicine is such an important craft. But there are also ways we can take care of ourselves and our loved ones” he said. Anyone can join the choir, just have the app installed and follow the link that Casper posts on his Twitter.

4. The idea of creating a virtual choir and the world’s first “Virtual Choir”

But the idea of creating a virtual choir is not new. More than a decade ago, a girl named Britlin Lossi posted a video on YouTube in which she performed a soprano from Eric Whitacre’s “Sleep.” She preceded her singing with a warm introductory speech addressed to the composer, where she confessed her love for his work. The video touched Whitacre and led him to address people with the following proposal: to record individual parts of his works in order to then consolidate them into a single file. He created a video in which he described the concept of his work called “Lux Aurumque”, and then conducted for future performers to the accompaniment of piano – so that singers can make their own recordings using this “backing track”. Many people responded to the request. The first “Virtual Choir” included 185 singers from 12 countries. Everyone liked the project so much that “Virtual Choir 2.0” was soon announced – for the song “Sleep” (the same one she sang in the fan video of Brittany Losi). This video, published in 2011, included an order of magnitude more participants – 2,000 people from 58 countries. Later, the number of participants increased. In “Virtual Choir 3.0” (2012), performing the work “Water Night” – about 4,000 participants from 73 countries, in version 4.0 (2013, the song “Fly to Paradise”) edited 8409 videos from 5905 people from 101 countries.

5. Conclusions

As P. Chesnokov said – the basis for working with a large team is discipline, curriculum implementation and systematic movement towards the goal. Each concert, art program is erected as a building – from design, sketch, drawing, logistics and up to completion (*Chesnokov, 1961*). All participants must work in concert on local tasks and deliver the result in a timely manner. Unfortunately,

the quarantine adjusted both the deadlines and plans, as well as the process itself. An important factor that, in my opinion, changed the attitude of children, teachers, society as a whole – was the need for self-organization, self-discipline, which organizes and becomes the main guarantee of results.

Thus, we observe positive trends in distance learning, mastering modern technologies and their implementation in art education. The Internet is blurring the boundaries, so it's important to use it to your advantage. Quarantine has made us feel an urgent need for live communication, so perhaps this will be the impetus for increasing interest among young people in classical music, live performance in front of gadgets and the Internet.

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CHOICE OF INFANTS – ACCEPTABLE OR UNACCEPTABLE (CHILDREN AND ADULTS' POINT OF VIEW)

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Summary

This article deals with the results of a long-term four-year study of the problem of children's choice of the first year of life in the environment of various vital areas of knowledge of the immediate surrounding. The collected, analyzed, generalized facts of the infants' choice testify their active self-realization in the process of cognitive selective actions. It has been found that the parents' and teachers' insufficient understanding of children's natural rights of their choice leads to the suspension of such actions. As a result, there is a delay in the timely mental, sensory, physical development of infants. It was found that the full realization of children's reasonable choices is possible in conditions of adult recognition of infants' subjectivity in interaction with them. The authors established that infants show fundamentally important signs of subjectivity in contrast to the actions in the status of the object of interaction, which is constantly imposed on him by adults in the process of choosing. Using demonstrations of infant's subjectivity, it is possible and necessary to provide them with conditions for its further development and improvement in reasonable selective activities.

Keywords: choice, infants, early age, subject, object, interaction, parents, teachers.

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Don't expect that your child will be such as you want.
Help it to become not you, but itself.

Janusz Korczak

1. Introduction

Democratic transformations in social spheres have led to corresponding changes at all the levels in educational environment – from preschool to higher education. In order for today's younger democratically educated generations to continue the process of democratization and improve its results, they must become the direct subjects of it in modern conditions. Accordingly, the place, status, role of the child in the family and in educational environment of the preschool institution (PI) require a conceptual review.

From this multidimensional problem, the aspect of the child's choice of the desired for their own needs, preferences, interests has not yet been studied. In early and preschool childhood, research in this area has broad prospects, as children's lives are not yet as regulated

by the program content and organization of the educational process as schoolchildren or students.

Modern scientific developments and the practice of preschool education in democratic Europe were analyzed and generalized (*N. Melnyk and colleagues, 2020*), prove the positive consequences of the teachers' attitude to preschool children as the subjects of interaction with adults. The research of I. Bekh (*I. Bekh, 2003*), students and followers of his scientific school (*O. Reipolska, 2020*), revealed the progressive consequences of a multidirectional personality-oriented approach to preschool children. Theoretical and practical training of the future specialists in preschool education according to the research (*L. Artemova and colleagues, 2021*), (*V. Borova and colleagues, 2021*) provides appropriate specialists' training who are able to introduce the latest approaches to working with young children in Ukraine. At the same time, the problem of choosing early and preschool children's personal agency remains unexplored.

We consider the problem of choice as the rights of children to manifestation of natural activity and the desire for self-realization. Numerous choices where children demand to realize themselves in the position of the subject are mostly meet misunderstanding and neglecting by adults (parents, teachers), who receive children as the objects of their own actions. It provokes misunderstandings between these subjects of constant vital interaction. The insufficient study of this phenomenon of the children's choice and resistance of adults to its implementation, especially in early childhood, determines the relevance of study of this problem in the context of democratic transformations in educational processes of Ukraine.

Purpose. The purpose of this study is to identify and justify the presence of manifestation of the children's subjectivity from the first year of their life.

Objectives.

1. To concretize the choice of the desired by infants as natural and personal manifestation of their subjectivity.

2. To substantiate the natural and personal right of children in the first year of life to make the right choice and to warn adults about unacceptable choices.

Methodology of the Study. The conceptual basis of the study is a personal-oriented approach to the young child as a subject of interaction with adults: its understanding, perception by parents and teachers on a partnership basis. This multidimensional approach looks ahead the aspect of the children's reasonable choice of desire, but this aspect does not yet studied. Adults should perceive with respect and support to this aspect, making the conditions for such choices realization. At the same time, they need to take care of the correct reorientation of children from unacceptable choices to more appropriate ones.

Methods of the Study.

Theoretical analytical and synthesizing study of scientific sources from the point of view the problem of children's subjectivity in the educational process and, in particular, their choice.

A long-term 4-year study of early children's choices in families and preschools was carried out by the following methods:

- providing conditions for children's access to a variety of object and toy environment at home, nursery groups, streets, public parks, playgrounds, swimming pools, etc.,
- purposeful selection of different types of toys (figurative, interactive, dismountable, auxiliary materials, etc.) for the infants' free choice of the desired,
- observation, various records (recordings, videos, photos, dictaphone) of demonstration of children's choices desired in their various activities: everyday, communication, games, etc.,

- making different situations for infants' choices of the desired – in accordance with an image, design, size, ability to act, organic, cognitive needs, preferences of singing, melody, pictures, constructive actions, etc.,
- offer to kids the choice of different feasible tools and materials for appropriate functional actions or random manipulations with them,
- providing children with a choice of different books (for children and adults) in Ukrainian, German, English, with vivid illustrations of the characters and the environment of the work, with printed text without illustrations, different composition (cardboard, paper),
- the above-mentioned questions were indicated in the developed questionnaires, these surveys are for the parents,
- communication with parents, teachers about their motivation to allow certain choices by children and obstacles to others,
- study of children's reactions to permissive or forbidden emotions, words, actions of adults concerning to the things chosen by kids,
- communication with children about their choice to identify their preferences for one subject among others,
- comparative analysis, synthesis, classification, generalization, interpretation of the facts of children's choices of the desired among a variety of subjects, in different conditions of action with them.

The study was conducted in families and preschools in Kyiv, Rivne and nearby regions of the Western region of Ukraine; in Frankfurt am Main, Germany.

2. The main text

Theoretical and methodological principles of the study. The UN Convention on the Rights of the Child (adopted by the UN General Assembly on November 20, 1989, ratified by the Verkhovna Rada of Ukraine on September 27, 1991) recognized the main provisions of the "Declaration of the Rights of the Child" according to law (these provisions were proclaimed by the UN General Assembly on November 20, 1959). The main articles of these documents, implemented in a number of legislative acts of Ukraine, determine the rights of children and the responsibilities of adults concerning meeting the vital needs of children in love, understanding, morals, best interests of the child, guarantee the usage of all rights and freedoms.

Guided by these documents, the state program "I am in the World" (*Team of Authors, 2019*) determines educational, upbringing, developmental tasks of young children from the first half of life. Among these tasks are the following: the optimal development of the infants' personality, taking into account their needs, cognitive interests, leading activities.

We believe that provision and observance of the children's rights and interests mentioned in these documents are for their optimal mental, sensory, physical development from an early age and all this is possible in terms of adult recognition of the children's subjectivity in partner interaction with adults.

Having analyzed many well-established concepts, it was possible to identify the fundamental features and differences between the subject and object. We can form the following concepts as working ones and offer them to you.

The concept of subject (Latin *subjectum* – is that which is at the basis) is a carrier of activity that knows the world around. The subject of cognition is a person who knows something, someone, a worker, the engine of some processes, a source of activity with the position of a researcher and a transformer.

The concept of object (Latin *objectum* – is oriented particular activity) – it is an object, a person who knows, the result of cognition, change, which is aimed at the activities of the subject.

The subject of cognition indirectly makes its efforts through subject-practical activity on the object in interaction with it, with other objects, with people, with the phenomena of reality; but the object – on the contrary, accepts the purpose, tasks, conditions of the offered activity, changes in environment of its influence. A child can be alternately a subject or an object in interaction with an adult.

Taking into account these concepts, we have analysed the facts of the young children demonstration of the subjectivity, expressed in their choices of the desired. It has been noted that infants' choices have characteristic features of subjectivity or objectivity corresponding to the essence of these concepts, namely: they actively express their own desires in their choice and try their own efforts or asking the help of an adult to make it; as a child grows and develops, such actions in his behavior become more and more comparable to the actions of the object – making out-of-the-box solutions, conditions, proposals of the adult. However, this relationship may vary depending on the predominant style of the behaviour of an adult with an infant from the first days of life – democratic or authoritarian.

Modern pedagogics is moving from the subject-object model of adult interaction with children to the subject-subject. However, the optimal balance of subjectivity and objectivity of the child in interaction with the adult in different activities and at different ages of life and cognition is still not sufficiently studied and understood.

Now, the problem of subjectivity in pedagogics has been mainly studied concerning children at school, students of higher education. Scientific School (*A. Boiko, 2006*), studies the problems of up-bringing, studying, education on the basis of specially organized activities, communication, self-regulation, subject-subject moral and aesthetic relations of adults and children. The theoretical results of this scientific school are used in the corresponding articles (*Encyclopedia of Education, 2008*). The study (*O.Halian, 2017*) proved the system-forming category "subjectivity of the student's personality" for pedagogical paradigms, theories and educational models focused on subject-developmental pedagogical cooperation. Other researchers (*O. Popova, A. Lesyk, 2021*) have studied the place and role of personal relationships in correspondence of primary or secondary with the motives and impacts of the activities in which they unfold and are realized for the scientific substantiation of subject-subject interaction technologies. (*O. Savchenko, 2018*) proves that the primary basis is the subject-subject interaction of the teacher with the student. He considers the educational process to be secondary in its types of activities, where these relations exist. From the experience of this study, it can be argued that the primary or secondary subject-subject interaction of children is a variable trend depending on the type of activity, the level of its development and perfection in children of early and preschool age.

Scientific school (*M. Hryniowa, 2015*) directed to study three dominants: a student – a teacher – educational environment, where self-regulation is the highest degree of activity. The study (*A. Khomenko, 2015*) of subject-subject relations as the basis of personality development, formation of subjectivity of teachers (*A. Bekirova, 2019*)

Concerning preschool children, humanistic ideas developed by a Polish teacher are still relevant today (*J. Korcezak, 2016*). A thorough study (*O. Koshelivska-Melnyk, 2002*) concerning the problem of children's choice among moral norms attracts attention. As to young children, a fundamental study of the scientific school of psychologists (*M. Lisina, 2009*) reveals the dynamics of communication between infants and adults from the first months of life. However, research on the choice of infants has not been identified.

Choices of the desired by the children of the 1st year of life.

Four-year long-term studies have shown that even a baby can make and defend its choice. The initial incentives for its choice are vital needs for food, sleep, care, external impressions, communication and other activities.

Thus, from the first days of its life, the newborn may refuse breast milk, because it is difficult to suck from tight breasts. Mothers first try to feed the baby wholesome breast milk. But while it is still not enough, they feed infants from the feeding bottle with other milk or formula milk. As a result, the baby gets an alternative to choosing between: significant effort and still lack of breast milk or rapid satisfaction of hunger with the help of the feeding bottle. Subconsciously, but persistently, the newborn chooses a feeding bottle, because it is easier to suck and satisfy hunger. Exhausted by the crying of a hungry baby, mothers give in to it and feed with the help of the feeding bottle. An infant need it when it wants to drink water. But after all, a well-fed baby is still crying, needing water and refusing milk. Here the behavior of the baby and the mother depend on the natural stimuli of thirst or hunger. The baby is not able to resist them, and the mother understands how important it is to satisfy them in a timely and adequate manner. Thus, the first choice and the first victory of the baby in the competition with an adult for the main way of survival – facilitation of nutrition. Mother made away with crying of the infant. But she has new problems: pump out breast milk in time (you still have to learn it!) or feed her baby by formula feeding from the first days of life. Both the first and the second injure loving mothers. Some of them withstand these excessive worries until almost the end of the first year. And some, mostly French mothers, leave babies to 3 months of age to breastfeed (*Druckerman, 2019*). So who in such cases declared and defended their own subjectivity in a vital competition? And who is the winner? In the end, both mother and a baby became partners, because their only goal is to eat and grow. And it is the most important thing for both of them.

Along with the choice of ways to meet the vital physiological needs of the newborn, there is a social need – knowledge of the immediate environment. The baby, from the first month of its life, distinguishes something from the environment, choosing the attractive things: he stops looking at the faces of the closest people who communicate with it every day, on the bright objects. Next, its primary choice concerns those toys that sound and move. This selective concentration of the baby first by means of looking, and then with the help of auditory, tactile sensory organs helps it to calm down: anxiety disappears, even crying stops. Both the baby's interest in external stimuli and the reassurance of focusing on them show that such early baby's choices in the immediate environment reveal the emergence and realization of the need for contact with the outside world. These and similar choices socialize the child, promote its development.

Since such needs are natural and indicate the timely mental and physical development of the baby, is it possible to deny it the satisfaction of not yet realized, but important for it to choose? It is known that the systematic neglect of the staff of nurseries in the needs of infants in contact with the outside world leads to "phenomena of hospitalism" – not a reverse delay in mental and physical development of children in orphanages (*N. Shchelovanov, N. Aksaryna, 1960*).

These and identical facts prove that the choice of infants among the various environmental phenomena from the first days of life is a reasonable need of a growing human individual. The phenomenon of selectivity of infants testifies their timely mental development and promotes socialization in the human environment.

In further studies of the phenomenon of choice in dynamics during the first year of the infants' life revealed a number of their numerous and varied attempts to choose and have the desired.

Timely maturation of the baby's nervous system stimulates the emergence and development of cognitive processes, speech, various movements, actions and more. With the advent of these new opportunities to know about the environment, the range of baby's choices is expanding. The growing ability of not yet skilled small little hands to take and hold objects, toys encourages it to choose the most attractive to it in colour, comfortable in shape, size, weight-bearing. Parents, obviously, consider such choices of children reasonable, because they usually satisfy them and even provide the child with ergonomically appropriate and safe items, toys. Only the choice of dangerous objects for infants, approaching to them, causes fair restrictions on adults. If these restrictions precede the appearance of such objects on the way to their achievement by the infant, it does not notice this and does not feel the prohibitions of the chosen one. And so it acts calmly in the object-toy environment that surrounds it, with the permission of its parents. If the adults do not take care of it in time, they have to take away the dangerous objects chosen by the child or voluntarily limit access to important things for parents. But the baby insists on its own choice, protests against the prohibitions in ways available to it: crying, capricious, fussy, seeking the desired. Without understanding the reasons for the restrictions, the infant asserts its subjectivity in the right of choice, which it previously exercised. Without realizing it, the adults consider themselves as the victims. After all, these are their things, and children are not yet able to use them. So why are the things important and dear to adults? That is why these reactions of infants are classified as fuss in psychology and pedagogy, and even more so in everyday vocabulary. The studies (*L. Artemova, 2020*) have shown that it is possible to avoid negative traumatic emotions for infants and adults. It is only necessary to understand their choice, respect the right to it, accept and recognize the infant as a subject of interaction with an adult.

With development of movements, in particular, crawling, walking, the baby expands its space, enters in to the space and field of adult activity. It is especially interested in modern household appliances. The child chooses and studies everything he can get his hands on, picks up everything new and unfamiliar to him: telephones, cutlery, keys, various papers, books; clicks on a computer keyboard, opens cabinet doors, pulls out drawers, looks into the oven, on the stove, and more. Adults are usually not ready to allow a child into their daily living space and often more or less authoritarian stop these and similar attempts by infants to know about the immediate environment. But protecting their material world, parents do not notice (or do not know) that forbidding such a choice of the child, they extinguish his natural curiosity, its cognitive interest, stop the initiative, returning the child to the environment of the only game world. Is this baby's choice reasonable? We think, that a baby as the small curious explorer has a right for it. Adults only need to understand their child, find the time for it and have the inspiration to satisfy its choice and thus open such an interesting yet unknown adult world. After all, the baby already lives in it. It is better to show the baby what he wants, to allow him to touch everything with his fingers, to take him in his arms, protecting him from disappointments, and his precious things – from loss and damage. If the adults do not do this, the child will seize the moment to look at everything contrary to what is not allowed, unnoticed, stealthily from the adults, to touch everything, to take his hands, even slyly looking at them. This is a casual request of the child about himself, his interest, his own choice, a certain ability to achieve and know what he wants. He does not understand why adults can use all the riches of the environment uncontrollably, and children are not allowed. Because, all it attracts him uncontrollably.

At the same time, adults encourage children's movements for their development, considering it reasonable for them to choose to stand on their feet, get up, crawl, and finally walk. So why do parents often put their "VETO" on the items that the baby wanted to get? After all,

it was to them that he tensely walked or walked, stumbling and falling. Try to imagine yourself with his difficulties and perseverance. None of the adults remember their first steps towards the chosen one! But you should know that the prohibition of learning new things – is the brake of emotional, intellectual and ultimately personal development from infancy. Neither parents nor teachers want it. Adults are usually led by the expediency of one or not the expediency of another in the choice and behaviour of the child. But he did not understand this for a long time, nor did he learn to respect the rights of adults. Because adults are smarter and more experienced than young children, it is probably the parents and educators who have a responsibility to respect children's rights to learn about the world and their first choices.

Children's choice of desired in communication. An interesting fact was revealed in this experimental communication with infants. At the end of the first year, children actively learn the words often used by their parents and relatives. Adults encourage, approve this choice of infants and are even proud of their achievements. If some adults have too many words "No", "Do not take" and similar, the child even responds to positive appeals, requests, wishes of adults: "No!". So, "come back to bite you later", "you reap as you sow". The conclusions are obvious: there are too many prohibitions in communicating with children. The kids have borrowed them and do not accept even positive offers from adults. It is necessary to avoid of objections, not permissions, and look for positive forms of bias or replacement of unacceptable choice of the baby.

It is very easy to switch the children of the first year from their chosen one, but unacceptable both for them and from the point of view of adults – biting off pieces of rubber toys, cardboard boxes, books, sucking ribbons, laces when teeth are cut; springing paper, and then pages from children's books, knocking on the glass from idleness. You can play the piano, guitar, trumpet or something other, or take a ball and play with it, or start a whirligig, flash a light of the toy, roll a car, clockwork toy, flutter a bird's wings, moan like a cow, bark like as a dog and etc. in case to keep children's attention away. Children immediately take such toys from the hands of an adult and imitate the actions of adults, even diversifying them.

Such joint with adult activities is interesting and useful for infants because it enriches their play activities. Because the children are not yet able to use toys functionally enough. Therefore, it is important to build a turret of 3-5 rings together with them, to build simple small structures from cubes, roll balls and play with them, "feed" dolls, animals, imitate sound, carry them in a cart, put them to bed, etc. The richer the range of functional play activities of children with toys, the more frequent and meaningful their games with them, the more there are their own inventions or random new actions of children (*L. Artemova, 2021*).

3. Conclusions

The analyzed research communication and various activities with the infants of the first year of life revealed their diverse choices in various spheres of life: food, subject, communication, etc. We consider the infants' choices as demonstration a manifestation of self-realization and cognition, a statement of their own subjectivity.

It was found that not always and not all adults notice and properly evaluate the infants' choices, do not ready to understand them as a bright natural indicator of the baby's self-expression and self-development, its way to join the human community, the material world, to realize themselves among others. This creates a problem relationship between omniscient adults and uninformed infants. As a result of misunderstanding each other, parents and infants lose a lot. It is difficult for adults to get along with an infant and, accordingly, opportunities

for effective developmental emotional, tactile, speech influences on it is reducing. The infant loses many opportunities to meet natural personal needs in the cognitive sphere and self-development, subjective perception of the diversity of the world. All this reduces trust and sincerity in relationships with adults, due to its prohibitions and obstacles to choosing by a baby, not recognizing its subjectivity.

It has been found that, adults consider the infants' choices as the following: reasonable, acceptable or unacceptable. The attitude of adults to the different baby's choices determines: support, encouragement of reasonable choices; non-perception, suppression, prevention of unacceptable choices.

As a result of the study, it was found that the attitude of adults to the infants' choice determines the further course of this phenomenon: activation or extinction.

In the conditions of systematic attentive and friendly attitude of adults to the infants' choices, they are always address their wishes, intentions to adults, waiting for their approval, support or assistance to achieve or realize the desire. Understanding and respecting the choice of infants, participating in its implementation, parents and teachers ensure the free personal development of the child in accordance with the sensitive periods of its growing body.

Numerous research situations show that inadmissible, unacceptable baby's choices should be prevented by changing the conditions of their occurrence, resorting to switching the attention and interest of children to another choice, organizing their joint activities with adults and interesting activities for children. In cases that adults constantly and systematically cancel, block, neglect the infants' choices, children, get annoyed, resist, get angry, and conflict with adults because they do not understand the reasons for this. The kids, although do not always the winners of such clashes, but they do not forget them. They are often becoming naughty about anything and even without it, they become capricious, trying to defeat an adult. And they often succeed. There is an imbalance in the relationship between adults and children. It is harmful for children and parents to be in a such conflict situation because since childhood it inhibits the natural free development and realization of the child's personality in a democratic society.

Prospects for further research. With the growth and development of young children, the sphere and content of children's choices change significantly. The growing life experience and activity of children are changing both the forms and ways in which children express their own choices. Accordingly, it is important to study, analyze, interpret the peculiarities of the children's choices (on the 2nd and 3rd years of life) as an important component of their subjectivity in relationships with adults and peers.

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THEORETICAL FOUNDATIONS AND DIRECTIONS OF RESEARCH CONCEPTS IN LANGUAGE

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Summary

This article is devoted to theoretical principles and directions of concepts research in linguistics, which is the key notion of cognitive linguistics. The multifaceted variable understanding of the term “linguistic picture of the world” is analyzed. The cognitive picture of the world and the linguistic picture of the world are interconnected as primary and secondary, as the content of a concept and a means of the researcher’s access to this concept. This article examines the notion of “concept” in research of various scientists. It is indicated that there is still no clear interpretation of the term “concept”. There is a significant number of controversial issues related to the theory of concepts: about the status of the concept, its structure, features of verbalization, as well as about the typology of concepts. In modern linguistics, the following main approaches to the study of concepts are distinguished: semantico-cognitive, conceptual studies, linguoculturology, linguocultural conceptology. But despite the existing differences in understanding of concepts, representatives of these schools believe that concept is the main unit of consciousness, capable of verbalization through linguistic units, having a multidimensional complex structure. At the moment, we can talk about two trends in the study of concepts. Firstly, this is the study of the features of concepts and their functioning in different texts. Secondly, the experimental study of concepts by method of free associative experiment and receptive experiment. The article also considers the linguocultural perception of the concept and notes that the linguocultural direction, in our opinion, is a base.

Keywords: linguistics, cognitive linguistics, picture of the world, concept, concept sphere, conceptual research, cultural linguistics.

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1. Introduction

One of the topical areas of modern linguistics is cognitive linguistics, or linguoconceptology. The basic concepts of this science are linguistic and cognitive picture of the world. The main effective unit of cognitive picture of the world is the concept.

Considering the leading role of concepts in process of cognitive and mental activity of a person, studies regarding structure, semantics, features, functions, ways of representing the

concept within the linguo-cognitive direction, which will expand the understanding of the deep essence of language, the versatility of its speech manifestations in a cognitive perspective, in particular, to reveal the concept as a representative of knowledge, as well as ideas, sensations, associations, reflected in the linguistic picture of the world, stay up to date. In categorical terms of cognitive linguistics, concept is one of the key units.

Currency of this article lies in the fact that linguocultural modeling of concepts is currently one of the most actively developing areas in linguistics and not all cultural concepts have been sufficiently studied. The theoretical basis for the study of concepts was: 1) the works of V.I. Karasik, I.A. Sternin, Yu.S. Stepanov, S.G. Vorkachev, V.A. Maslova on the essence, structure, content, features of the concept and the ways of its representation in the language; 2) the works of G.G. Slyshkin, dedicated to the structural and semantic organization of the concept sphere; 3) research by Yu.N. Karaulova on the verbal representation of concepts in the text. The purpose of the article is to get acquainted with the theoretical foundations of cognitive linguistic and cultural linguistics for the study of concepts. It is important to note that in modern scientific literature there is no clear definition of the method of conceptual analysis, there is no universal methodology for its implementation, there are only intuitive steps in this direction. The choice of the methodology for the study of concepts remains largely subjective and is determined by the content that the researcher puts into the term “concept”, the material of the study, and the type of concept being studied (*Pimenova, 2016: 18*).

2. The linguistic picture of the world

The understanding of the term “linguistic picture of the world” in modern linguistics is ambiguous. So, Yu.N. Karaulov defines the linguistic picture of the world as “reflected in specifically national linguistic forms and semantics of linguistic expressions, a set of ideas about a person and the world around him”, woven “of contradicting theses, facts and statements, connected in a whimsically mosaic (non-system) way and create a native speaker has an illusory confidence that within the framework of his national culture he will find answers to all the basic questions of life” (*Karaulov, 1987: 156*).

The study of the linguistic picture of the world, according to Z.D. Popova and I.A. Sternin, includes: 1) a description of the “division of reality” reflected by the language in linguistic paradigms (lexico-semantic, lexicophraseological and structural-syntactic groups and fields; 2) a description of the national specifics of the meanings of linguistic units; 3) identification of missing units (lacunae) in the language system; 4) identification of endemic (characteristic only of a given language) units (*Popova, Sternin, 2003: 46*). Note that, according to the same authors, the concept sphere is the sphere of thought, the information base of the cognitive consciousness of the people, consisting of concepts. The linguistic picture of the world is that part of the concept sphere that has been expressed through linguistic signs. The main source of the formation of concepts is the cognitive activity of the individual, including through her communicative activity (communication, reading, study). The conceptual sphere of a person is the information base of the cognitive picture of the world, but it does not exhaust it. The cognitive picture of the world and the linguistic picture of the world are interconnected as primary and secondary, as the content of a concept and a means of the researcher’s access to this concept. At the same time, the authors note that the linguistic picture of the world only partially reflects the conceptual system, not all concepts have linguistic expression and become the subject of communication. Therefore, the study of the linguistic picture of the world only fragmentarily allows us to judge the concept sphere,

although there is apparently no more convenient access to the concept sphere than through language (*Popova, Sternin, 2003: 8*).

3. The content of “concept” notion

Concept is a key concept in cognitive linguistics. However, the content of this concept varies significantly in the concepts of different scientific schools and individual scientists.

In Russia, the first doctoral dissertation devoted to the study of concepts was M.V. Pimenova “Concepts of the Inner World of a Person (Russian-English correspondences)” (2001), the main provisions of which were set out in monograph (*Pimenova, 1999*). Nevertheless, there is still no clear interpretation of the term “concept”, there is a significant number of debatable issues related to the theory of concepts: about status of concept, its structure, features of verbalization, the relationship between concept and notion, concept and meaning, as well as about the typology of concepts (*Pimenova, 2016: 10*).

V.I. Karasik characterizes concepts as “mental formations, which are significant, conscious typified fragments of experience stored in a person’s memory” (*Karasik, 2004: 59*), “multidimensional mental formation, in which the figurative-perceptual, conceptual and value sides are highlighted” (*Karasik, 2004: 71*), “a fragment of a person’s life experience” (*Karasik, 2004: 3*), “experienced information” (*Karasik, 2004: 128*), “a quantum of experienced knowledge” (*Karasik, 2004: 361*).

We find close to this understanding in Z.D. Popova and I.A. Sternin. These scientists define the concept as belonging to a person’s consciousness, a global unit of mental activity, a discrete mental formation, which is the basic unit of a person’s mental code, having a relatively ordered internal structure, being the result of cognitive (cognitive) activities of an individual and society and carries complex, encyclopedic information about the reflected subject or phenomenon, on the interpretation of this information by the public consciousness and the attitude of public consciousness to this phenomenon or subject (*Popova, Sternin, 1999: 49*).

V.A. Maslova notes that “a concept is a complex formation including various characteristics: evaluative, figurative, associative, and all of them must be taken into account in the process of reconstructing the concept” (*Maslova, 2013: 249*); “A concept is a linguomental formation, a partially verbalized cultural meaning that has a name / names in the language and includes meaning, cultural connotations, the concept and image underlying the name, as well as value meanings” (*Maslova, 2012: 20*). She emphasizes: “If we are talking about concepts behind which there are specific objects of objective reality, extra-linguistic orientation, observation, and the intuition of the researcher are of greater importance. When conceptualizing abstract entities, language orientation is more important. However, cultural and linguistic data are most often used in reconstruction of concept” (*Maslova, 2013: 249*).

For S.G. Vorkacheva, concept of “operational unit of thought” (*Vorkachev, 2001: 66*), “a unit of collective knowledge (sending to higher spiritual entities), having a linguistic expression and is marked by ethnocultural specifics” (*Vorkachev, 2001: 68–69*). If mental education does not have ethnocultural specificity, it, according to the scientist, does not apply to concepts.

According to Yu.S. Stepanov, the concept can be defined as a concept, but the concept is expanded as a result of entire modern scientific situation. A concept without such an extension is the subject of the science of logic, a description of the most general and essential features of an object, an indication of its closest genus and the difference in its type, that is, the genus and species distinction. The concept is the subject of another science – culturology and the description of a typical cultural situation. Concept is “determined” and “experienced”.

It includes not only logical signs, but also components of scientific, psychological, avant-garde artistic, emotional, everyday phenomena and situations (*Stepanov, 2007: 32*).

M.V. Pimenova notes: “What a person knows, thinks, imagines about objects of external and internal world is what is called as a concept. A concept is a representation of a fragment of the world” (*Pimenova, 2004: 8*). She puts forward that “a concept is a kind of representation of a fragment of the world or a part of such a fragment, which has a complex structure, expressed by different groups of features, implemented by various linguistic methods and means. The conceptual feature is objectified in the fixed and free forms of combinations of the corresponding linguistic units – the representatives of concept. Concept reflects categorical and value characteristics of knowledge about some fragments of the world. The concept structure displays characteristics that are functionally important for the respective culture. A complete description of this or that concept that is significant for a particular culture is possible only when studying the most complete set of means of its expression” (*Pimenova, 2004: 10*).

G.G. Slyshkin notes that “a concept is a unit designed to link together scientific research in the field of culture, consciousness and language, since it belongs to consciousness, is determined by culture and is objectified in language” (*Slyshkin, 1998: 86*).

4. The main approaches to the study of concepts

Summarizing these data, we can conclude that in modern linguistics there are the following main approaches to the study of concepts: semantic-cognitive (Z.D. Popova, I.A. Sternin), conceptual studies (M.V. Pimenova, O.N. Kondratyeva), cultural linguistics (V.I. Karasik, G.G. Slyshkin), linguocultural conceptology (S.G. Vorkachev).

Despite the existing differences in understanding of concepts, in methods and approaches to their research, representatives of these schools argue that concept is the basic unit of consciousness, capable of verbalization through linguistic units, having a multidimensional complex structure. The multidimensionality of a cultural concept is associated with internal dismemberment, implying the need to build more than one model to study its features and nature as a whole.

“Description of a concept is a special research procedure for the interpretation of the meaning of its name and the nearest designations” (*Karasik, 2004: 110*).

V.A. Maslova notes that “a concept is a ‘bundle’ of meanings, sticking out in different directions, creating a concept field. It is possible to speak about concept in an interpretive way, in terms of its reconstruction” (*Maslova, 2012: 25*).

In general, at the moment we can talk about two trends in the study of concepts. Firstly, this is the study relating to the features of concepts and their functioning in various kinds of texts (dictionaries, psalms, fiction and journalistic texts) and, secondly, the experimental study of concepts, in particular, by the method of free associative experiment and receptive experiment. Within the framework of the associative experiment, subjects react to the words-stimuli of any verbal reaction that comes to mind, and as a result of data processing, obtained associates are interpreted as a reflection of conceptual features of studied concept. A receptive experiment explores the knowledge and understanding of the meaning of a language unit by native speakers (*Pimenova, 2016: 18*).

The linguoculturological direction is, in our opinion, basic, since it is based on the study of the language from the point of view of its ability to express the categories of culture and to be a means of preserving the cultural component of society, formed in the collective linguistic consciousness of this society. The most important, in our opinion, the level of the linguistic

embodiment of the linguocultural concept is the textual implementation, that is, the appeal to the concept for specific communicative purposes. The text contains factual information, associations, figurative representations, value attitudes.

Putting the linguocultural understanding of the concept at the head, we are talking about the value component as the main criterion, distinguishing linguocultural concept from the cognitive one. Understanding the cultural value and relevance of concepts in this direction presupposes a serious study of their verbalization.

Verbalization of texts is based not only on the search for lexemes objectifying concepts, but also on the study of their contextual space, paradigmatic and syntagmatic connections, into which concepts enter.

5. Conclusions

The establishment of a new anthropocentric paradigm attracts attention of linguists to the interaction of language with thinking, consciousness, and culture. This contributes to the formation of new linguistic branches, in particular, cognitive linguistic and cultural linguistics. The unifying moment in the development of these two independent linguistic branches is the presence of conceptual directions, one of the main tasks of which is the analysis of concepts. In this regard, on the basis of cognitive linguistic and cultural linguistics, a new linguistic discipline is emerging that studies concepts – linguistic conceptology. Within the framework of linguo-conceptology, there are two main approaches: linguocultural and linguo-cognitive, difference between which lies in the understanding of concept notion and the method of its analysis. The concept refers to the fundamental concepts of modern linguistics. Summing up the review of approaches to understanding the concept, we emphasize that each of the above approaches does not exhaust the concept of “concept” but allows you to deeper knowledge of its nature. It should be recognized that the theories under consideration are often cross-cutting, correlated and complex. We interpret concept as a multidimensional culturally significant socio-psychological education that can have linguistic expression.

The many concepts that linguists use have given rise to various classifications of concepts presented in the scientific literature, but none of these classifications can be considered universally accepted. The question of methods and techniques for analyzing concept remains unresolved, representing a prospect for further research in the modern period of the development of science.

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RECREATIONAL COMPONENT OF TRAINING AND PEDAGOGICAL PRACTICES OF SPORTS INSTITUTIONS IN UKRAINE

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Summary

The article considers the recreational component of training and pedagogical practices of cultural and sports institutions of Ukraine. In this context, attention is focused on the practical activities of cultural and sports institutions as discursive practices. It is noted that the basis of the practical activities of cultural and sports institutions is a popular music and dance media culture, combined with fitness and other types of sports training. It is proved that the discursive practices of Ukrainian cultural and sports institutions form the methodology of recreative choreography, it means, the system of exercises and dance movements, each of which contains recreational components. There have been identified methods and techniques of the training and pedagogical process, which have absorbed both elements of classical choreography and purely gymnastic and acrobatic exercises with the use of functional training. An important way of “dance and health” dance and movement therapy as a means of achieving rehabilitation treatment, as one of the schools of psychotherapy. The choreutic concept and methods of movement analysis by R. von Laban and J. Longstaff are analyzed. An important recreative aspect of the practices of cultural and sports institutions – cognitive regulation of the mental state of a person – has been studied.

Keywords: recreation, choreography, discursive practices, sports training, dance and movement therapy.

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1. Introduction

Cultural and sports institutions of Ukraine are social institutions of recreational infrastructure, which operate on a permanent basis and provide training and pedagogical process in several areas – dance sports, dance fitness, sports choreography, as well as serve as centers for dance and movement therapy. Undoubtedly, this industry in Ukraine is quite widely developed, but there is no single system of state and / or institutional and legal regulation of these activities, due to different departmental affiliation of institutions and their activities – dance (competitive ballroom dancing), dance fitness and meditation choreography (buto, yoga), modern (according to the established terminology – “pop”) dance, etc.

Training and pedagogical practices of cultural and sports institutions of Ukraine as a phenomenon of modern mass culture are sufficiently integrated into similar practices of world music and dance culture and can be considered from the standpoint of the creative entertainment industry an important element of socio-cultural reality of the XXI century. The inculturation of foreign models of this subculture, in the conditions of Ukraine’s sovereignty and three decades of relentless process of building national cultural matrices (models), was fairly rapid and did not distort the cultural models that developed before the process.

It is also important that although cultural and sports institutions specialize in various types of sports and choreographic techniques, but they can all be classified as centers of recreative choreography. However, domestic scientific research devoted to the study of the formation of the methodology of *recreative choreography* today is almost non-existent.

Analysis of recent research and publications. The recreational component of training and pedagogical practices of cultural and sports institutions has relatively recently become the subject of comprehensive research. Scientific research by T. Sabantseva (*Sabantseva, 2013*) and V. Sosina (*Sosina, 2018, 2019*) is devoted to this issue and the application of gymnastic and acrobatic methods in choreographic training. Olvera (*Olvera, 2008*) and Ward (*Ward, 2008*) have focused on «dance and health» problem. Dance and movement therapy is researched in the works of foreign and domestic scientists, psychotherapists I. Biryukova (*Biryukova, 2001*), S. Brown and L. Parsons (*Brown, Parsons, 2008*), G. Nikolayi and O. Medvedev (*Nikolayi, Medvedev, 2017*), N. Kalina (*Kalina, 2010*), A. Muradov (*Muradov, 2019*), I. Carlson (*Carlson, 1982*), I. Hinkle (*Hinkle, 1992*), I. Longstaff (*Longstaff, 1996*). The mechanisms of appropriate training, including the nature and sequence of exercises, are considered in the work of K. Rudestam (*Rudestam, 2005*). In scientific research by O. Shandarenko (*Shandarenko, 2014*) modern cultural practices are studied in terms of discourse. O. Chepalov (*Chepalov, 2018*) considers choreographic language in the context of nonverbal communication, and P. Friz (*Friz, 2016*) – in the context of identifying semantic values.

The aim of the article is to consider the recreational component and the formation of the methodology of recreative training and pedagogical practices of cultural and sports institutions of Ukraine.

The methodology is based on a systematic approach, historical and comparative, cultural and anthropological, analysis and synthesis, logical and analytical methods, as well as scientific culturological, philosophical and psychological explorations.

2. The paralinguistic aspect in the choreographic practices

The training and pedagogical practice of cultural and sports institutions of any type or profile of activity involves primarily psycho-physiological impact on the object of this impact as well as the team to which it belongs. Both mental processes (perception, imagination, reproductive and productive thinking, memory) and organ systems (musculoskeletal, respiratory, vascular, etc.) are involved. But not less important are the socio-emotional, cognitive (informative) aspect of the training and pedagogical process, it means, subconscious and conscious mastery of the language of dance, the creation of its image. “Dance begins where movement gives birth to an image, and the image is a carrier of emotions and thoughts, where the conscious alternation of plastic movements creates a change in emotional states and leads to the development of the image” (*Friz, 2016: 540*). Thus, the paralinguistic aspect becomes extremely important (if not decisive) in the practices of cultural and sports institutions. The language of dance, as well as “ordinary” motor practice, is one of the types of speech – non-verbal communication, which carries semantic information, sometimes more meaningful than verbal.

Since choreographic language is a means of non-verbal communication, it can be applied to widely used in the social sciences methods of discourse analysis, and the practical activities of cultural and sports institutions can be considered as discursive practices. O. Shandarenko rightly notes: “The interpretation of culture as a set and integrity of discourses, as the unity of languages spread the French structural school, which raised the issue of temporality, as the

dominant discursive practices” (*Shandarenko, 2014: 133*). The idea that dance is a language without words, and a choreographic composition is a text the content of which is adequate to its symbolic form, allows us to extend to this text an understanding of discourse as the unity of speech and the situation in which it occurs. Therefore, there is a need to consider dance not only in terms of creating an artistic image, but also its belonging to the sign system, which is “especially characteristic of postmodern dance, when the dance began to recognize any human movement” (*Chepalov, 2018: 19-20*).

All types of choreographic art and motor activity in mass physical culture and sports are united in a single sphere of practice of cultural and sports institutions, which can be considered as a mechanism for creating meanings, based on paralanguage dance. If language gives meaning to objects, people and forms the norms and values of culture in general, the language of non-verbal communication creates opportunities for mutual understanding in the socio-cultural space without significant restrictions (language barriers, features of national cultural matrices, etc.). There is a semiotic construction of reality, which is based, in turn, on the discursive construction of meaning.

3. The formation of recreational methods of the training and pedagogical process

It should be noted that the basis of the practical activities of cultural and sports institutions is a popular music and dance media culture, combined with fitness and other types of sports training. Throughout the period of formation and development of this phenomenon of mass culture, the formation of methods and techniques of the training and pedagogical process continued. These techniques have absorbed both elements of classical choreography and purely gymnastic and acrobatic exercises that increase the functional readiness of dancers to perform modern dance of any complexity.

Many studies (*Sabantseva, 2013; Sosina, 2018, 2019*) address these issues indirectly, but the focus is on the application of sports techniques in the art of dance, not vice versa. In our opinion, another aspect of the use of choreographic art in the rehabilitation of physical condition with the use of functional training is much more interesting, which has become one of the leading activities of cultural and sports institutions specializing in dance fitness and mass physical culture.

Of course, functional training applies to all types of fitness, not just dance fitness as one of the means of achieving physical and mental shape, maintaining a high level of physical fitness. However, this tool is the most hedonistic, as it involves obtaining aesthetic pleasure from personal participation in the creation of an artifact of choreographic art. Getting aesthetic pleasure naturally coincides with other (non-artistic) functions of fitness as a sport, which are quite organically included, along with socio-emotional, aesthetic and communicative components, as well as purely health and therapeutic. The latter are the main goal of functional training aimed at the rehabilitation of a person – his physical condition, especially motor skills, which include, in particular, aerobic and anaerobic endurance. Without going into detailed descriptions of training methods of cultural and sports institutions (the specifics of which depend on the profile of a particular institution – dance sports or fitness dances, folk or Latin American dance groups), it should be noted that aerobic and anaerobic exercises together have a significant recreational effect.

Exercises used in the training practices of cultural and sports institutions contribute to the achievement of neurobiological effects, as well as the acquisition of signs of the condition, which we defined as a psycho-emotional optimum: reduction of stress and depression; increase

of cognitive properties (cognitive control) and structural connections of the brain; improving memory; improving sleep quality; increasing the rate of metabolism in the state of rest (after high-intensity interval training) (Carlson, 1982; Hinkle, 1992).

These recreational effects of the impact of functional training practices in cultural and sports institutions on the state of health are common to both dance sports and dance fitness. But even in institutions where only dance is taught, close to the level of social, and there is no goal of competition, the recreational effect remains one of the most desirable in the training and pedagogical process, and sometimes even becomes its main goal. Much research has been devoted to “*dance and health*” problem (Olvera, 2008; Ward, 2008). Most researchers agree that among other types of physical activity, dance looks the most attractive, because with the help of carefully performed exercises from the arsenal of dance aerobics, almost the same result is achieved as as a result of strength exercises.

The main reason for choosing dance sports / fitness as a means of improving health lies mainly in the other plane of psychophysics. It has been practically proven that dance has a positive effect on mental health and is one of the effective means of internalizing the individual’s assimilation of certain external norms of behavior and rhythm of existence in the modern world through mental coordination that activates sensory and motor chains (Brown, Parsons, 2008). The definition of “rhythm of existence” (in the extended sense of “rhythm of life”) in this context is the ability to manage psycho-emotional state. Dance psychotechnics is the oldest way in human history to find those rhythms that can regulate the psycho-emotional state without drugs or other methods of direct influence on brain function. Actually, “dance, in fact, is a dynamic meditation that changes a person’s consciousness, puts him in a state of ecstatic perception of the world and some fusion of his body with this world” (Muradov, 2019).

4. Art-dance in dance and movement therapy

One of the central places in these technologies is the direction, which is called *dance and movement therapy* and which is rapidly developing in Ukraine, especially in children’s music institutions and some medical institutions (rehabilitation centers). First of all, this type of therapy concerns the process of rehabilitation of people with special needs. It should be noted that this specialization is not relevant to most Ukrainian cultural and sports institutions, as it is considered one of the clinical practices of medical institutions, in particular, psychiatric hospitals.

In contrast to the practices that form the basis of the training and pedagogical process, in cultural and sports institutions, where the ultimate goal of training is a work of choreographic art-dance, in *dance and movement therapy*, choreography is a means to achieve the goals of rehabilitation treatment, and not the only one that leads to the goal. The goal of this type of therapy is to improve the quality of life, based on the meditative process of awareness of one’s own body in motion. In general, dance and movement therapy can be considered one of the schools of psychotherapy, although most training is based on different theoretical bases – psychodynamic theory, humanistic psychology, integrative, cognitive and behavioral, existential and / or other therapies that have become widespread in the XX century. In our opinion, the most constant and used in these trainings are the principles of *Gestalt therapy* – a synthesis of psychoanalytic ideas aimed at understanding the holistic patterns of interaction with the world (Gestalts) (Kalina, 2010).

There is no single methodology of dance and movement therapy in Ukraine yet: each of the trainers (instructors, doctors) adheres to one or more methods, there is no standardization

as such. However, any of these techniques are based on a conceptual approach, according to which the problems of patients are to break the connection between mind, body and spirit, so the therapist's task is to restore balance (mental and physical balance).

The article does not aim to give an expanded analysis of dance and movement exercises used in classes on this type of psychotherapy. But we consider it necessary to set out the basic *principles* contained in the Code of Ethics for dance and movement therapists: 1) dance and psyche are inseparable and have a constant mutual influence on each other; 2) dance is communication that takes place on three levels: with oneself, with other people and with the world; 3) the triad "thoughts-feelings-behavior" is a single whole, so changes in one aspect cause changes in the other two (the principle of integrity); 4) the body is perceived as a process, not as an object or subject; 5) creative human resources are an inexhaustible source of vitality and creative energy.

These principles are universal, as they are acceptable not only for psychotherapeutic treatment (where dance is a means of combating stress and disease), but also for dance sports / fitness, where dance or dance composition is the goal of the training process, which entails not so much therapeutic, as recreational (hedonistic) effect. These principles were formed throughout the XX century, but their conscious application in choreographic and psychotherapeutic practices became possible only with the advent of "free" dance ("modern" style), it means, departure from stage choreography in traditional ballet forms. Modernism, which was called Duncanism (rhythmic dance), had a tremendous impact on the philosophy of dance, giving birth and continuing to generate (already in postmodern times) the latest forms of elite choreography and stage experiments.

5. Laban's and Longstaff's methodology of dance therapy

In the training process, regardless of its level, genre and style orientation and goal, methods of movement analysis are used, initiated by Rudolf von Laban, who is not without reason considered the founder of modern choreography. He is the author of the system of notation of movements – kinetography of dance (or labatotation). The system has become the most widespread and recognized as the best in terms of spatial models, although historically not the first: dance scores (particularly in ballet) existed before, based on anatomical analysis, letter codes, sticks, musical notes, track systems and other means of movement fixation.

Laban made a real breakthrough in the theory and practice of movement, which he called "*space harmony*" or *choreutics*. The choreutic concept is based on the analysis of natural sequences of person movements in his daily life. Movement in the Laban system means the dynamic properties of the movement process and the ratio of the four main physical characteristics: freedom of flow, force of flow, time of flow and direction of flow. For analysis, each of the categories of movement (weight, time, flow, space) is a unique life theme of the individual. Space means a person's importance in life, his ability to form personal space and invade another people's space. Time means at what rhythm of life a person feels more confident and how he can influence the existing rhythm of life. Weight is how well a person feels his own importance, how it relates to the connection with the earth (soil). Flow is how much a person can maintain a certain style of movement to achieve a life goal.

Choreutics launched a series of further explorations related to *kinesthesia* (or proprioception) – the perception of the position of parts of the human body relative to each other and in space. In particular, J. Longstaff considers the choreutic concept from the

standpoint of cognitive and motor skills, introducing into scientific circulation the concept of “kinesthetic spatial cognition” – cognitive processes (for example, rehearsal of the mind) to analyze spatial information (*Longstaff, 1996*).

However, modern research mostly only complements and expands the choreutic system of movements analysis. The Laban system remains the main idea and methodological tool for both dance therapy (therapeutic effect of dance) and dance sports / fitness, where recreational effects dominate. Thanks to this system the ability to be in communication with oneself on a conscious level develops.

The importance of dance notation for the development of both professional choreographic art and for cultural and sports institutions or institutions of dance therapy is difficult to overestimate. First of all, it is important for coaches-choreographers of cultural and sports institutions, because it allows us to use certain templates to reproduce a particular style or concert sequence of movements in the training and pedagogical process. In 1982, a computer system of dance symbols appeared, which displayed on a computer screen an animated image of a figure performing dance movements specified by a choreographer.

In our opinion, another aspect of the practices of cultural and sports institutions is considered important – cognitive regulation of the mental state of a person, which is the object of recreational influence. Rhythms of modern music and dance culture and their choreographic embodiment streamline in the process of classes or preparation for performance affective processes in the human psyche, giving a rational form of emotional and sensory perception of life circumstances – impressions, impulses, experiences, memories. That is why practices that contain a recreational component promote the cognitive development of people of all ages, because the achieved psycho-emotional optimum provides stimulation of thought processes such as perception, memory, concept formation, problem solving, imagination and logic.

Any of the practices of cultural and sports institutions is based on rhythm as a system-forming principle in two components of the process – choreographic and physical training. The professional activity of cultural and sports institutions is so multifaceted that it can be considered as a variety of sports and dance practices of different origins, but with common properties (features). A common feature is the recreational components in all activities without exception at all levels of the dance industry and mass physical culture.

Modern dance is multi-genre and variable, so the possibility of information support of the training process in verbal and visual practice allows us to implement any choreographic ideas, to model the training process based on the existing knowledge base. The average “coach” of a cultural and sports institution in its activities is guided by templates or code systems developed for it by other professionals. However, templates (scores, control systems) are needed primarily for the formation of methods of the training process, because it is not so much about professional performing arts, but about the mass practices of cultural and sports institutions, where the process must be planned in advance – divided into stages, levels of training taking into account age categories, physical condition, etc. Adherence to methodological requirements should be creative and depend on the creativity of pedagogical skills and experience of the coach, who can not and should not ignore the individual characteristics of wards, but on the contrary – to promote the maximum disclosure of their best qualities.

6. Conclusions

Cultural and sports institutions are social institutions of recreational infrastructure, which function on a permanent basis and provide training and pedagogical process in several

areas – dance sports, dance fitness, sports choreography, as well as serve as centers for dance and movement therapy. The activity aspect of cultural and sports institutions is the implementation of psychophysiological, relaxation, hedonistic, socio-emotional (including cathartic), aesthetic, meditative, communicative, orienting, compensatory and educational functions.

Training and pedagogical practices of cultural and sports institutions, in contrast to the activities of mass physical culture, are carried out in organized forms and correspond to the concept of “mass sport”. But the peculiarity of the activities of cultural and sports institutions as a social institution of the leisure industry in general and the dance industry in particular, is the implementation of the movement as an art. The human body is the source and tool for creating images, cognitive sign structures. Practitioners of cultural and sports institutions use a dual role – recreational and health (rehabilitation, therapeutic) and choreographic, artistic.

Training and pedagogical practices of Ukrainian cultural and sports institutions are aimed, among other things, at achieving maximum motor activity by combining fitness exercises with popular music and modern choreography. In addition, the methods of the training process involve the achievement of recreational and rehabilitation effects, namely mental coordination and “ecology of the individual” – the preservation of mental and physical health in a social environment. These practices are aimed at restoring human vitality, in particular, by means of dance and movement therapy. Thus, in the discursive practices of Ukrainian cultural and sports institutions, the methodology of *recreative choreography* is formed, it means, the system of exercises and dance movements, each of which contains recreational components.

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**INNOVATIVE PROJECTS AND STEM EDUCATION
IN PERSONALITY DEVELOPMENT THROUGH THE PRISM
OF ALL LINKS OF EDUCATION IN UKRAINE**

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Summary

The paper studies the innovative projects in the development of personality through the prism of all levels of education in Ukraine in the process of professional training of pedagogues of preschool education institutions and higher school. Problematic issues concerning on theoretical and practical training of pedagogical workers of preschool education institutions and higher school are investigated. The pedagogical conditions of creation of professional competence of pedagogical workers of preschool education institutions and higher school are investigated. It is established that the reform of education in Ukraine involves a radical restructuring of the management, which requires a significant increase in the professionalism of management. The experience of applying pedagogical innovations in the training of future pedagogues of preschool education institutions and higher school is analyzed including multimedia lectures, interactive communication, game modeling, innovative projects, trainings. It is established that the use of practice-oriented innovation projects in the training of future pedagogues of preschool education institutions and higher school allows them to more fully develop their professional needs and interests, helps to acquaint with the specifics of professional activities, arouses interest and need in the formation and application of innovative technologies. The characteristic features of STEM-education have been identified, which are important in the training of future pedagogues of preschool education institutions and higher school. It is investigated that an important tool on which the effectiveness of the development of the professional position of pedagogues of preschool education institutions and higher school depends is the constant self-improvement of professional activity. The functions of the process of self-improvement of the pedagogues professional activity are determined. Thanks to the update of the Laws of Ukraine “On Preschool Education”, “On Education”, “On Higher Education” and the implementation of the National Doctrine of Education for 2021-2022, the Concept of “New Ukrainian School”, the Concept of Pedagogical Education received positive results education and higher education.

Keywords: pedagogue, preschool education, higher school, innovative projects, personality development.

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1. Introduction

The modern system of higher education in Ukraine is undergoing an era of active reform, which, in turn, determines the latest priorities and objectives of preschool education institutions and higher school, including the organization of a qualitatively new level of training for future pedagogues and educators. Today the higher education institutions are characterized by a transition from training pedagogues capable of transferring certain professional knowledge and the formation of specific skills, to training pedagogues of innovators who can teach education applicants to learn, research, think critically, set goals, find ways their implementation, anticipate the consequences of their actions. This problem can be solved through the use of innovative education, widespread introduction into the training of future pedagogues of innovative pedagogical technologies and projects. The success of the development of all levels of education in Ukraine largely depends on the quality of professional training of pedagogues and educators.

Due to the globalization processes taking place in the world, there is a need for a socially and professionally active pedagogical worker who has a high level of qualification, professional mobility, independence, ability to constantly improve their professional skills and further professional growth. Therefore, competitive pedagogues must have professional skills based on modern specialized knowledge of the field and a high level of professional qualification based on critical thinking and the ability to use theoretical knowledge in practice, so it is important to study the features of innovative projects in personal development through the prism all levels of education in Ukraine.

A small number of scientists study the topic of research of the innovative projects in the development of personality through the prism of all levels of education in Ukraine. In particular, the scientific works of I. Osadchenko, I. Pidlipnyak, L.V. Kozak, S.O. Sysoeva, N.O. Goncharova, O.V. Temchenko, N. Volkova, O. Lebid, S. Davydova, devoted to the analysis of problems of educational and pedagogical innovations, application of pedagogical technologies, improvement of technologies of preparation of future pedagogues, however, the question of application of the pedagogical innovative projects in preparation of future pedagogues of preschool education institutions and higher school is not sufficiently covered.

However, despite the large number of original and meaningful scientific works of both foreign and domestic scholars on the subject, it should be noted that there are virtually no studies on the analysis of the innovative projects in the development of pedagogues through the prism of all levels of education in Ukraine.

The article purpose is to study the innovative projects in the development of personality through the prism of all levels of education in Ukraine, in order to form effective activities in educational institutions. To achieve this goal, the following tasks are defined:

- 1) to analyze the process of training future pedagogues of preschool education institutions and higher school;
- 2) to characterize innovative projects and technologies in the development of pedagogues of preschool education institutions and higher school.

During the study, general scientific and special research methods were used, including analysis and synthesis, comparison, generalization, system-structural analysis.

2. The process of training future pedagogues

Due to the growing conditions of intellectual meaningful work, competition for educational services, the problem of personal development based on the use of innovative projects in the process of quality training of innovative specialists who are able to implement

the latest educational standards and the new educational technologies. The effectiveness of educational institutions depends not only on the programs of training and education, but also on the personality of the pedagogue, his relationship with education applicants. A highly qualified and observant pedagogue combines in his practice and professional activity the general theoretical achievements of pedagogy, his own innovative experience, personal preferences and features of education applicants with whom he works. Therefore, even the most perfect theory cannot give a comprehensive answer as to what a pedagogue should be, but it is the basis on which pedagogues must rely in the course of personal development.

O. Dukhnovych argued that a person who dedicates himself to raising children should “by nature be chosen for it”. J.A. Comenius compared the pedagogue with an architect, a gardener, a military leader and a sculptor. Along with the great social role, J.A. Comenius appreciated the humanistic orientation of the personality of the pedagogue, who is obliged to be a leader, a friend of his education applicants (*Osadchenko, 2017*).

According to F. Froebel, there should be an inner unity between the educator and the child in mood, life, joint activities and play. The child will be revealed if the artist of pedagogical business, and not the craftsman will work with it (*Frebel, 2004*).

The ideas of outstanding pedagogues regarding the pedagogues personality are still relevant today. The modern educator must strive for self-improvement in the context of the ideas of humanization of education, must know and be able to apply the achievements of science, create original methods of teaching children, pupils and students, work effectively with parents and the public. The key to successful pedagogical activity of both educator and pedagogue are their erudition, modern worldview, objective self-esteem, pedagogical tact, professional qualities, psychological and pedagogical education, ability to work with education applicants (*Bielienka, 2006*).

Education reform in Ukraine involves a radical restructuring of management, which requires a significant increase in the professionalism of management. Meeting this need involves finding new and more effective ways to train management staff capable of effective leadership based on experience and current achievements of psychological and pedagogical disciplines, to take the initiative to restructure the educational process, transforming it within the new model of educational institution.

The analysis of modern practice shows the existing contradictions between the current requirements for methodological service and the level of knowledge, skills and abilities of education applicants - future pedagogues and organizers of preschool education, which ensures the successful implementation of these requirements. One of the weakest points of training the future pedagogue is that he is given knowledge of the basic of sciences, which he will teach and almost do not give the knowledge about how to raise a child, pupil or student (*Lynenko, 1995*).

At the present stage, the requirements for the quality and efficiency of educators are growing. Methodical services play an important role in improving their psychological and pedagogical training and improving pedagogical skills. The first link is the methodical service of the preschool educational institution, which should organize the work, so that the educator could not only replenish their professional knowledge, but also implement it in practical work with children, contributing to the child’s development as a person. At the same time, the task of the methodist is to help educators understand the need to change the tactics of communication with the child, namely:

- the refusal of dictation, when dominated by prohibition, demand, threat, order, shout;
- the transition to partnership with education applicants, to dialogue, to the establishment of trust, which provides the child with a sense of security, emotional well-being, trust, joy of life.

Without rejecting the main methodological forms of work with pedagogues, such as pedagogical councils, consultations, group reviews, seminars, workshops, we should strive to fill them with new modern content, aligning it with the Basic component of preschool education. According to the developers of the new program, its difference from the previous ones is that this is the first development program in which the emphasis is shifted from didactic to developmental and educational, which corresponds to the modern interpretation of tasks. Therefore, the program is quite complex, requires thorough psychological and pedagogical knowledge of educators of preschool education institutions (*Bielienka, 2006*).

The program of the new model and preparation of education applicants for its implementation in practice is defined as the priority of all pedagogues. Methodical training of the future pedagogue of preschool education institutions is to master the activities that are due to the structure and functions of preschool methods of education. The future specialist in preschool education must master scientific and methodological training in a number of disciplines: organization and management of preschool education institutions, theories and methods of physical education of children, theories and methods of native language development of children, theories and methods of basic mathematical concepts, basic of fine arts. The particular importance in the scientific and methodological complex is given to basic preschool educational institutions, where students have the opportunity to observe and analyze the work with children, educators, as well as implement their own educational innovative projects of teaching and educating children (*Bielienka et al., 2009*).

At the present stage of development, the Ukrainian educational space needs radical changes. It is necessary to improve not only the educational system, but also to improve the training of pedagogues. First of all, the quality of the pedagogical process depends on the pedagogue, his competence, which formed during professional training. Modern preschools need educators, and higher schools - pedagogues who need to constantly improve their teaching skills, improve their professional level. However, this requires a deep inner motivation and the desire to work independently.

Thus, in order to successful professional activities, as a preschool pedagogue, and as a high school pedagogue will must master a certain set of knowledge, skills, and cultivate positive personal qualities. The unity and interaction of these qualities is determined by the prerequisite for the effective implementation of professional functions of the preschool pedagogue, among which are: the care for children, that is to ensure the livelihood of children based on advanced methods and technologies of teaching; taking care of their health; formation of positive emotions; creating a rational educational environment; carrying out health-improving measures. The educator should aim: to study the individual and personal characteristics of children; collection and analysis of the facts of their behavior, establishing the causes and consequences of the actions of education applicants; designing the development of the personality of each child and the children's team in general; assimilation of best practices and new pedagogical technologies.

The implementation of program tasks in preschool education institutions and higher schools largely depends on the competence of pedagogues, and this is primarily from the representatives of methodological services at all levels. Implementation of new concepts of education, which require the pedagogue to actively and creatively to implement the ideas of interactive personality-oriented education and training, able to bring progressive ideas into their activities, change outdated approaches with new ones (*Pidlypniak, 2013*).

3. Innovative projects in development of the pedagogues

In modern conditions for free orientation in the information space, the future pedagogue and educator must have an information culture as one of the components of general culture, which is the ability to extract information from various sources: both periodicals and electronic sources and be able to use it effectively; in mastering the methods of analytical and synthetic information processing; as well as in the knowledge of the peculiarities of information flows and information support in the field of their future professional activity. To do this, throughout the training it is necessary to carry out continuous training of future pedagogues and educators in the field of information technology and introduce the new information technologies in the educational process (*Minich, 2008*).

One of the most popular and promising innovative instruments in the education are multimedia technologies that use advances in information technology in the educational process. Today, in higher education institutions in order to support and enrich the educational process often use such multimedia products as: subject lectures-presentations (created by pedagogues); multimedia computer training systems (electronic manuals, simulators, encyclopedias, etc.); audio and video training materials; educational web-sites. Today, multimedia technologies have made it possible to change the form of lectures and seminars. The variant of lecture visualization with the use of multimedia arose as a result of the search for new forms of implementation of the didactic principle of clarity.

In recent years, the use of multimedia computer slides to illustrate speeches with the display of the most important facts, graphs, tables, illustrations, audio and video has become more widespread. The form of multimedia presentation, which was previously used by pedagogues to explain the material, is now used by education applicants when speaking at seminars, project defense etc. This form of student work has a direct professional orientation, as it teaches them to organize and present the material that is typical of modern educational institutions in most countries.

Thus, the introduction of modern information technology in the training of future pedagogues and educators enriches their knowledge of new forms and methods of work in preschool education institutions and higher schools, provides opportunities for future creation of their own innovative methods of teaching disciplines in education and promotes more effective learning of the professional knowledge and their implementation in educational, creative and research activities.

The method of innovative projects is one of the pedagogical technologies, which is based on creativity, the ability to navigate in the information space, independently construct their knowledge, quickly adapt to the conditions of professional activity. There are the following types of innovative projects: research, creative, game, information and practice-oriented. Research and practice-oriented projects have the special importance in the professional training of future pedagogues. Research projects are performed according to the logic and structure of scientific research and are used in the process of research activities. These include the preparation of essays, abstracts, analytical papers, articles, reports at scientific conferences; the study and generalization of advanced pedagogical experience in higher education; diploma theses, etc.

The use of practice-oriented projects in the training of future pedagogues and educators allows them to more fully develop their professional needs and interests, helps to familiarize with the specifics of professional activities, arouses interest and need to create and apply innovative technologies. Such innovative projects include: the development of recommendations, plans and measures of educational nature; the preparation of collections of pedagogical tasks, videos,

multimedia products for professional purposes, etc. An innovative project requires a carefully thought-out structure and the scenario of its participants with the definition of the functions of each of them and the intermediate and final results (Kozak, 2011).

Modern education needs an active, creative, innovative pedagogue, who can be educated only by implementing in pedagogical practice strategies for the development of critical thinking, which is to “awaken consciousness” when the future pedagogues is aware of the realities around him and seeks solutions. This approach is inextricably linked to the use of active and interactive technologies.

Interactive learning as a necessary condition for innovative education involves the use of a system of methods aimed at active mental and practical activities of future pedagogues. These include problem lectures and seminars, thematic discussions, brainstorming, round tables, business and role-playing games, trainings, etc. In the practice of professional training, game interactive technologies are widely used, which are based on game modeling.

The game modeling involves solving problems related to professional activities, careers and human relationships. Participants in the learning process according to the game model are in different conditions than in traditional learning. The education applicants are given maximum freedom of intellectual activity, which is limited only by specific rules of the game: 1) education applicants choose their role in the game; 2) they make assumptions about the probable development of events; 3) they create a problematic situation; 4) they look for ways to solve it; 5) they take the responsibility for the chosen decision (Kozak, 2012).

Today, training has become the most common interactive technology among the methods of game learning, which contributes to the formation of practical skills of the future pedagogue. The main purpose of the training is to practice and master behavioral skills, ideas that are necessary to perform a particular professional activity. A methodological feature of educational training is the possibility of using it not only as a method of teaching, but also as a combination of active methods.

Depending on the tasks in the practice of training future pedagogues, the training takes different forms, which can be divided into two large groups:

- focused on the acquisition and development of professional skills and skills of business interaction that help increase the effectiveness of organizational activities (training for the development of presentation skills and abilities, creativity, sensitivity, resolving interpersonal conflicts, etc.);

- aimed at deepening the experience of analysis of communication situations (motivational training? leadership training, public speaking, etc.) (Honcharova, 2020: 128 -129).

4. Features of STEM-education

Today in the world, in particular in Ukraine, STEM education is actively developing, which unites pedagogues of the natural cycle through the integration of four main components: Science, Technology, Engineering, Mathematics and is based on principles of involving participants in the educational process in research and engineering activities (see Fig. 1). Combining the efforts of subject pedagogues through the construction of interdisciplinary links is an integral part of the professional competence of the pedagogue.

The inclusion of elements of STEM-education is important in the training of future pedagogues, as well as in the program of training, retraining, in-service pedagogue training, where it is important to include issues such as: general concepts of STEM-education, application of STEM-education in teaching education applicants, creation of STEM-projects, use of STEM-technologies, etc. The main

advantages of STEM education are the increase of professional competence of pedagogues in the following format: accessibility, mobility, free, time saving, individual pace of learning, communication in cyberspace, acquaintance with modern innovations, in particular, models of STEM-education, creative approach, improvement of professional skills, etc.

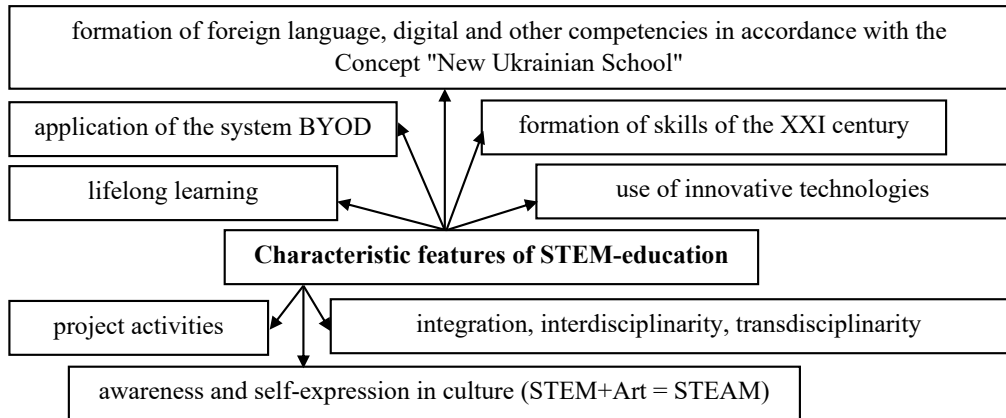


Fig. 1. Characteristic features of STEM-education

Source: Compiled by the authors based on official data of (Temchenko, 2016: 263).

Thus, the modern education system requires the development of the pedagogues abilities and desire for self-education and self-improvement, active attitude to life and professional growth as the basis of professional position and an important condition for competitiveness of professionals in the labor market. Another tool on which the effectiveness of the professional position of the pedagogue depends is constant self-improvement – conscious professional activity of the pedagogue in the system of his continuous pedagogical education, which is aimed at improving the professional level, professional self-realization, further development of professionally important qualities, interests, needs and opportunities of education applicants, as well as the requirements of society, personal and professional development (Temchenko, 2016: 264-266).

Figure 2 shows the functions that are performed in the process of self-improvement of professional activities of pedagogues.

Continuity of the process of professional self-improvement forms the ability of the pedagogue to determine the prospects of his professional growth and feel the constant need for it, regardless of the degree of improvement of the system of pedagogical activity (Temchenko, et al., 2020: 179).

Such changes were preceded by a number of scientific studies on the training of educators, pedagogues with the best european and world experience in pedagogy, which took place in the form of the following legislative updates: Law of Ukraine “On Education” (Pro osvitu, 2017), Law of Ukraine “On Higher Education” (Pro vyshchu osvitu, 2014), Law of Ukraine “On Preschool Education” (Pro doshkilnu osvitu, 2001), National Doctrine of Education Development for 2021-2022, Concept of “New Ukrainian School” (Pro skhvalennia Kontseptsi, 2016), Concept of Development of Pedagogical Education (Pro zatverdzhennia kontseptsii, 2018), practical implementation (experiment – implementation of the Concept of New Ukrainian school ”2017–2023) showed positive results and continue to demonstrate (Davydova, 2019).

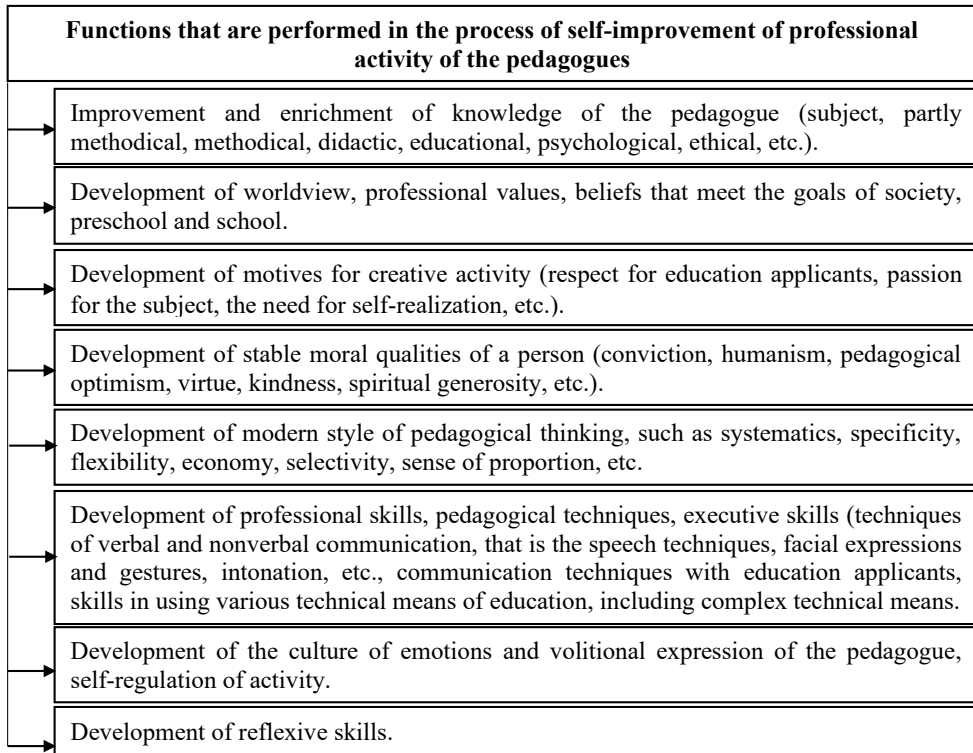


Fig. 2. Functions that are performed in the process of self-improvement of professional activity of the pedagogues

Source: Compiled by the authors based on official data of (Temchenko, et al., 2020: 179).

5. Conclusions

Based on the study, it can be concluded that the study of innovative projects in the development of personality through the prism of all levels of education in Ukraine is becoming increasingly important. The importance of the development of the education sector and a consistent state educational policy focused on obtaining a qualitatively new result, namely improving the professional skills of pedagogues, which would meet the state and trends of the world educational society and generally accepted international and european standards.

It is determined that in the system of innovative professional training the personal potential of the future pedagogue and his ability to be the subject of innovative activity comes to the fore. Thus, the needs of modern education require the creation and application of innovative pedagogical technologies and projects aimed at forming innovative thinking of future pedagogues, a system of professional competencies for innovative professional activities. Technological literacy is becoming the dominant characteristic of the modern pedagogue, provides a transition to a qualitatively new level of efficiency and optimality of the organization of the educational process.

Prospects for further research are to develop appropriate training for future pedagogues through the use of innovative projects in personal development through the prism of all levels of education in Ukraine. The study does not cover all aspects of this problem. A further direction of the author's research is the analysis of the system of professional training of preschool and higher education pedagogues due to the conditions of modernization of education, which will stimulate innovation and educational activities and increase the provision of educational services and improve current quality of education.

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IMPLEMENTATION OF A PERSONALITY-ORIENTED APPROACH IN HIGHER EDUCATION IN FRANCE

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Summary

The article reveals the question of the introduction of a personality-oriented approach to the education system of France, higher education system in particular. It has been proven that it has been a part of the state educational policy since 1989. Due to the practical implementation of the personality-oriented approach, the learning process was considered as a project and activity of a dynamic and fully involved individual in the process of its development in accordance with its individual needs. It has been proven that the personality-oriented approach in the system of higher education involves the development of differentiation and personalisation of the learning process. Differentiation in education is realised by dividing the content of training into simple segments (modules), which are adapted to the already acquired knowledge of students or fill in the gaps of the subject. The purpose of personalisation is to help the student to determine his / her existing knowledge and make his / her own choice, i.e., to develop his / her own educational project. We have found out that the concept of project, personal and professional at the same time, is dominant in this model of learning. It has been confirmed that personality-oriented learning in modern France is more of a training. The methodologist plays the role of a “coach” who observes, outlines ways, directs the mental processes of the pupil / student.

Keywords: differentiation, individualisation, individual project, personalisation, teacher training.

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1. Introduction

One of the priority tasks of modern international educational policy is to create conditions for the development and implementation of fundamentally new educational standards, which should be based on a person-centred approach to the organisation of education. However, the problem of contradiction between the current state of theory and practice of personality-oriented education remains acute in many countries. In our opinion, the study and dissemination of positive European experience will help interested countries to identify conceptual long-term strategies for further improvement and development of education systems in the context of turning it to the identity of each student. The experience of France is of undoubted interest to us,

as it has established traditions in the field of practical implementation of the ideas of humanism in the education system.

The purpose of the article is to characterize the phenomenon of “personality-oriented approach” in the French higher education system, to determine its essence and characteristics of practical implementation in the higher education system.

Interesting prospects for the realisation of this purpose opened up for us the opportunity to study the peculiarities of the organisation of the learning process directly in one of the European countries, namely France. This was supported by the Ministry of Education and Science of Ukraine and the Ministry of Foreign and European Affairs of France within the framework of the “Dnipro” Joint Action Program in the Field of Scientific and Technological Cooperation between Ukraine and France.

The participants of the project were Luhansk Taras Shevchenko National University (Ukraine) and the University of Avignon and Vaucluse Lands (France). Scientists from both countries had obtained a real opportunity to work in research laboratories of both countries, universities, to observe the peculiarities of the pedagogical process directly in educational institutions of France and Ukraine, to communicate with fellow teachers and students, to analyse, compare and summarize perspective pedagogical experience.

Within the project, researching the general problem of humanization of professional training of teachers in France, special attention was paid to the study of ways to implement a person-centred approach in the training of modern teachers and professors of foreign languages.

The project participants used a set of methods to collect and initially process factual material: study and analysis of legislative acts and government regulations on education, circulars and instructions of educational institutions, pedagogical documentation, educational and methodological literature, statistical publications and periodicals of France; collection and primary processing of factual material, comparison and critical analysis of sources; surveys, questionnaires, “mail surveys”, interviews, conversations with teachers and students. According to the results of the research project in accordance with the thematic framework of our study, the prognostic value of French theoretical and practical experience in implementing a person-centred approach to higher education, professional training of teachers and professors of foreign languages in particular was determined.

2. The emergence of the phenomenon of “personality-oriented learning”

It is worth noting that the Law on the General Principles of the Organization of National Education, adopted by the National Assembly of the French Parliament on June 10, 1989, changed the vector of educational development in the country as a whole (*Loi d'orientation du 10.07.1989*). The preamble to the state document states: “The student must be at the centre of the education system” (*Loi d'orientation du 10.07.1989*). This is a distinctive feature of the new Law, because the red thread through the whole text is the idea that from now on it is the educational institution (primary, secondary, higher) that must adapt to the needs of each individual student. G. de Vecchi calls the Education Act 1989 a “true Copernican revolution” (*De Vecchi, 1992: 21*).

At the same time, the new state document imposes on French schools, colleges, lyceums and higher education institutions the obligation not only to transfer and disseminate knowledge, but also to teach students the methods of independent work. Of particular interest is the opinion of the modern French researcher of teacher professional training G. de Vecchi, who says: “Until now, no curriculum has had a clear idea that students should be taught to learn, to encourage

them to develop their own methods of work” (*De Vecchi, 1992: 27*). One might think, the researcher continues, that this is not worth paying attention to. The learning process seems quite natural to everyone. However, emphasizes G. de Vecchi, all those who have not developed the ability to learn, are often defeated in the process of education (*De Vecchi, 1992: 27*).

It is worth noting that the 1989 Law enshrined the provision that from now on pupils and students, based on personal aspirations and abilities, should develop their own individual project of school, university and professional orientation. They are assisted in this by parents, teachers, pedagogical staff responsible for orientation and competent professionals (methodists) (*Loi d’orientation du 10.07.1989*). In connection with this demand at that time in the French Republic, the question of professional training for teachers who would be able to go from an ordinary teacher to an educator, tutor and a companion of a child’s development, a regulator of his learning and the first steps in gaining experience. Future French educators were tasked with taking into account the individual developmental characteristics of the students with whom they would work and the environment in which teacher-student interaction would take place.

The emergence of the phenomenon of personality-oriented learning in the French education system was also due to the growing number of students in schools and their personal diversity. “Student diversity is becoming a major problem in today’s education in France; as a result, the task of pedagogical education is precisely the urgent need to train teachers who will inevitably face this problem” (*Tournier, 2001: 47*). In addition, the country needed a large number of teachers. The need to train a large number of teachers at a higher professional level was discussed in the National Project “School of the Year 2000”. The French pedagogical community was looking for measures that would allow the school system to adapt more successfully to the general level of knowledge and better meet the social and economic requirements of French society at the turn of the century.

One of the first such measures was that in 1986 teachers were hired under the new rules. The innovation was that in order to enter a pedagogical educational institution, candidates with a diploma of general university education or another equivalent, had to enrol and pass a competitive exam for recruitment for civil service (fr. *Concours de recrutement*) (*Prost, 2014*). At the same time, persons who already work in the education system, which is considered a civil service, pass a closed competitive exam for the recruitment of teachers (fr. *Concours interne*). And all those who do not have pedagogical experience, but have a desire to become a teacher, in the presence of the necessary diplomas take an open exam (fr. *Concours externe*). The introduction of the open competitive exam changed and simplified the requirements for applicants who wanted to obtain a teacher’s diploma.

The next step, in our opinion, was in solving the problem of training a new generation of teachers, humanistically oriented in their professional activities, is the new conditions of pedagogical education announced by the 1989 Law. Important points of this law are: first, the organization of professional pedagogical education in the conditions of a new specialized institutional structure – the University Institute of Teacher Training; secondly, new requirements for admission to this educational institution.

Article 17 of the Act provides for the establishment of “at each academy, starting from 1 September 1990, a University Institute for Teacher Training” (academies in France are educational districts into which the country is territorially divided; there are 29 academies). The main task of the new pedagogical school is to “train teachers who have a high level of scientific and professional knowledge that fully meets the requirements of the future major” (*Lumbroso, 1986*).

The peculiarity of professional and pedagogical training of future teachers in France after 1989 is its implementation on the basis of three-year education at one of the universities, where students receive special scientific training and a bachelor's degree. According to the new law, education at the University Institute for Teacher Training is designed for two years, so the total period of study for a pedagogical major is five years. The main task of the first year of study for future primary and secondary school teachers, foreign language teachers in particular, is to offer each student the best possible preparation for participation in the above-mentioned National Competitive Examinations for Recruitment to the Civil Service. Moreover, next to the preparation for the competition tests to give them the opportunity to gain first experience in the profession. The purpose of the second year of study at the University Institute of Teacher Training is the development of professionalisation of the novice teacher. All elements of the two-year training are aimed at helping trainees to acquire the competencies and professional skills that will help them become true teaching professionals. Helping every future teacher to become autonomous is the main goal of the second year of professional pedagogical education.

We believe that the purpose of these innovations was to make the process of training of future teachers more personality-oriented and personalised. They were preceded by a wave of protests by students of pedagogical schools, who accused the system of teaching teachers of "infantilism" and of ignoring the diversity of their previous experiences. Contemporary French researcher of teacher training F. Tournier, calling these innovations "the result of protest and negotiation", argues that "they, for many reasons, are an event in the history of the French training system for teachers, future foreign language teachers in particular" (*Tournier, 2001: 46*). It is these changes, the scientist continues his opinion, for the first time clearly put forward the requirement of personal orientation of the teaching process of teachers.

D. Bancel, rector of one of the French academies (the rector in France is the head of the academy, i.e. the educational district), in his report "Creating a new approach to the development of teacher education" from October 10, 1989 on this occasion noted: the implementation of pedagogical training future teachers on the basis of a bachelor's degree with subsequent two-year professional training at the University Teacher Training Institute would be reflected in their new, more aware and critical, as well as more personal and individual attitude to their profession. Coming into education with a university degree in a particular discipline and with their personal life experience, these older adults, than before, had to add to the already acquired specific and often professional knowledge of their new professional individual image and identity (*Bancel, 1999; 2000*).

In our opinion, it is worth noting that in France during this period two national symposia on teacher training were held (fr. Le Colloque National sur la formation des enseignants – AECSE). One of them, "Individualiser les parcours de formation" took place in Lyon in 1991; the second "Pre-professional and professional teacher education: the problem of individualization" (fr. Formation préprofessionnelle et professionnelle des enseignants: La question de l'individualisation) – in Grenoble in 1993. All French scholars who participated in the symposia are unanimous in the fact that the personal orientation of the process of training teachers is both a goal and its means.

"The topic of distinguishing the individual by his individual characteristics in pedagogical education interested me with its novelty", – says one of the participants in these symposia, a researcher at the University of Strasbourg V. Gouillaud (*Gouillaud, 2001: 145*). "Until now, a personality-oriented approach in the training of future teachers has rather contributed to the development of individualism, as it was seen primarily as an individual work of students", – said the French researcher V. Gouillaud (*Gouillaud, 2001: 143*). Most of my studies at school and

university followed the transmission model, which revolved around the process of “teaching – learning” to pass the exam. Sometimes I felt bored and uninterested in the course of my studies, so I want to carry out educational activities, first of all, with the hope that I will be able to pass on knowledge close to the student’s personality. Thus, I had the need to be able to better understand myself as a person involved in the education process” (*Gouillaud, 2001: 145*).

We share Gouillaud’s view that for a teacher in order to be able to carry out the personality-oriented learning of his students, he must, above all, understand himself and his personal identity. “The individuality of a socialized personality is formed simultaneously through mutual understanding with other individuals through speech and through intersubjective and biographical understanding of oneself” (*Gouillaud, 2001*). At this time, the opinion of V. de Landsheere that “the teacher teaches at the same time what he knows and what he is” (*De Landsheere, 1992: 418*) received a special response among the French pedagogical community.

3. Differentiation and personalisation of training

We believe that the next important lesson worth following is the French experience of practical implementation of a person-centred approach in the modern education system in two aspects: differentiation (modular learning, variability of educational routes, etc.) and personalisation. In our opinion, it is important to explain what French scientists invest in the concept of “personalisation” in education, including teacher training. Because a large number of scholars, both in French and Ukrainian pedagogy, use them as synonyms. But each of these concepts has its meaning. Let’s try to understand this together with scientists – participants of the previously mentioned national symposia on teacher training on the basis of individualisation.

S. Baillauguès, P.-A. Dupuis, G. Ferry, M. Kempf and F. Tournier call variability a type of personality-oriented teacher training. “In itself, the variability of the educational process does not mean that the future teacher becomes a real subject of his training”, – say scientists (*Baillauguès & all., 2001*). Therefore, we agree with them that in order to understand the peculiarities of the organisation of personality-oriented learning, we should distinguish between the meanings of such concepts as “differentiation” and “personalisation”.

The personalisation of education is on the other side of its individualised differentiation, – says the French researcher of teacher training S. Baillauguès (*Baillauguès & all., 2001: 29*). Both phenomena consider the learner in its integrity and originality. The attention of teachers and methodologists is drawn to the knowledge and competencies already available to pupils, students or future teachers, which they have accumulated during training or in practice; and the fact that this knowledge is different for everyone. However, while the teacher-mentor, taking into account the difference he notes in students, can try to differentiate their work, the learner, who is engaged in self-education, he personalises his actions, i.e., adapts them to their needs. The student accepts the proposals that are offered to him based on their abilities, goals and personal experience (*Baillauguès & all., 2001: 30*). At the same time, according to S. Baillauguès, personal experience is the essence of the niche of knowledge development and “choice” of attitudes and values. This experience gives meaning and colours the “personalisation of learning” (*Baillauguès & all., 2001: 36*). Thus, the prospect of personalisation leads to the consideration of the student as a specific and potential subject and active participant in the pedagogical process.

A similar position is expressed in other works on teacher training. In particular, D. Possoz in his scientific paper “Polysemy of the terms: “individualisation” and “personalisation of

learning” consistently argues that the concepts of “individualise” and “personalise” overlap in that they both take into account the difference between learners and are based on their originality. “The general points contained in these terms, the scholar continues, are also manifested in the rejection of “totalitarian” teaching and exclusively frontal and collective types of knowledge transfer” (Possoz, 1991: 18). D. Possoz explains his opinion by the fact that a simple retransmission of knowledge positions the learner as an object of the pedagogical process, which is located in the same plane as others involved in the same content of education, to the same rhythms of knowledge acquisition, to the same goals of knowledge acquisition. The French researcher draws attention to the fact that this approach is completely at odds with innovative humanities education, for which respect for differences and personal self-identification is of the highest value. “Humanistic education presents itself as centred on motivated subjects”, – explains D. Possoz (Possoz, 1991: 23). It turns to them in anticipation of cognitive effort. It is based on the argument of difference and supports its emphasis on the acquisition of knowledge by both, in terms of their interests, their abilities and their ways of acquiring knowledge. It supports cognitive constructs. It is able to encourage exchange and cooperation between learners (Possoz, 1991: 19).

The list of such statements can be continued. In our opinion, they speak best of the fact that after 1989 the emphasis in French education was on the process of self-preparation, and not only on mastering the content of disciplinary knowledge, “as it was the case with previous education systems in France, pedagogical in particular”, – emphasize M. Altet, J. Desjardins, L. Paquay and Ph. Perrenoud (Altet & all., 2014). As we can see, French theorists and practitioners of the system of pedagogical training went beyond a simple division of the content of pedagogical education into modules and credits. In addition to the created diversity and richness of teaching offers for future teachers, they managed to develop such personalised training mechanisms that form autonomy in the teaching profession and lay the foundation for personal activity development of socio-professional personality of the teacher throughout life.

4. Development and maintenance of an individual student project

A positive innovative example of personalisation is the French experience of implementing a personality-oriented approach within university education. We believe that the development and maintenance of an individual student project is the leading mechanism of personalisation in French universities. It is represented by such modular courses as “Professional student project”, “Development of individual student project”, “Support of individual student project”, which are just the form of personalised education, which aims to optimise the chances of success of all students. This modular course is designed for first-year undergraduate students and is held in the first semester. The general task of such courses is to accompany, provide assistance to each student to optimise his success in the learning process. With the help of better “self-knowledge” he will be able to learn the necessary competencies and develop and implement his individual educational and later professional project.

J. Arrous (2006), Director of the All-University Service on Information and Orientation of Schumann University in Strasbourg, in his work “Development and maintenance of an individual student project: The module “Professional project” notes that an individual student project should be understood as a combination of training project and, on the other hand, his professional project. In this case, a professional project determines the training project, and not vice versa, as is often understood (Arrous, 2006: 2).

The first step in the practical implementation of the mechanism of development and maintenance of an individual student project was created in 1984 at the Claude Bernard University in Lyon (fr. L'Université Claude Bernard Lyon I) module "Professional student project" (Arrous, 2006). Designed for first-year students of the university, it aimed to help the student, facing the realities of working life in his chosen field, become an active participant in his educational / professional project. The Claude Bernard University in Lyon, having created the "Professional Project module", remained for more than 10 years the only university in France to implement it in the practice of teaching students. In 1994, the Professional Project module was introduced as an experiment at four more universities (Toulouse 3, Toulon, Paris 4 and Strasbourg 1).

The role of the teacher in the module "Professional project" is to accompany the student, – emphasizes J. Arrous in his work "Development and maintenance of an individual student project" (Arrous, 2006: 10). Its role is to follow the methodology of the module: to remind its goals, to support the process of finding documents, to stimulate students' interest, to encourage and motivate them to work, to raise issues during various contacts, to clarify the requirements to be met in preparation oral and written presentation of results. According to French researchers, the coordinator needs to know the history of orientation and its basic concepts; know the methodology of the module "Professional project"; know the university where the module should be implemented. These competencies, of course, can be mastered.

Thus, from January 1995 to July 1998, three waves of coordinators were trained during seminars at the Bernard University in Lyon. They were conceived and implemented by teachers and researchers, who in 1984 developed the module "Professional Project" at the same university. Representatives of 23 universities were trained (Toulouse 3, Toulon, Paris 4 Sorbonne, Paris Orsay, Montpellier 3, Metz, Paris Creteil, Catholic University of Lille, Valenciennes, Amiens, Strasbourg 1, Strasbourg 2, Rouen, Dunkerque, Bordeaux 1, Mulhouse, Paris 6, Rennes 1, Clermont 1, Troyes, Besançon, Brest, La Rochelle). In total, from 1995 to 2001, more than 70 people received such training.

It should be noted that in modern conditions author's courses on development of the individual project of the student are introduced in each university. They have become a real practice of training students in French universities, have evolved significantly and gained European significance. Today, within the framework of European scientific and educational cooperation, taking into account local needs, they are taught at universities in Hungary, Finland, Portugal, the Czech Republic, Greece, Italy, etc. Their goal is to develop student success through work that develops the skills of self-observation and contributes, on the one hand, to better self-knowledge, and on the other – to the formation of the necessary competencies to become an informed and active author of his educational and later professional projects.

5. Conclusions

Thus, French theorists and practitioners of pedagogical education have come to the conclusion that education can no longer be limited to "universal" pedagogical and didactic knowledge, it must be focused on the personality of the learner. The modern personality-oriented approach in France considers the learning process as a project and activity of a dynamic and fully involved personality in the process of its formation. Its development becomes possible, according to French researchers, with the focus of the learning process on the needs of each individual. According to them, the process of learning on the basis of personal orientation

involves the implementation of all possible mechanisms that contribute to the development of differentiation and personalization of learning.

Differentiation in education is realized by dividing the content of training into simple segments (modules), which are adapted to the already acquired knowledge of students or fill in the gaps of the subject. But French scientists are convinced that for the practical implementation of a person-centred approach to learning is not enough to develop the combinatorial properties of the education system. Calling a facilitating condition for individualisation as differentiation, scholars argue that only personalisation makes sense. The purpose of personalisation is to help the student with the help of methodologists and the educational institution to determine the knowledge available to him or her and to make his or her own choice. The concept of project, personal and professional at the same time, is dominant in this model of learning, and independent choices are infinitely open. Today, personality-oriented learning in France is more of a training. The methodologist plays the role of a “coach” who observes, outlines ways, directs the mental processes of the pupil / student. Its functions are to support and organize the work of introspection, to help interpret their practices and their behaviour, and thus gradually create, build specific skills and competencies of the participants, taking into account the personal experience of each.

However, within one article it is impossible to present in detail all aspects of the French experience of the practical implementation of a person-centred approach in the education system. Therefore, we see the prospects for further research in a detailed study of the practical aspects of the implementation of personality-oriented approach directly in modern French institutions of secondary and higher education, its content and methodological design.

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CONJUNCTIONLESS PHRASES: FORMAL AND GRAMMATICAL BACKGROUND

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Summary

The article is dedicated to the analysis of the problem of expediency of allocating conjunctionless phrases as an independent type of co-ordinate constructions. The main approaches to the consideration of conjunctionless units at the syntactic level of language are outlined. The specifics of the expression of the asyndetic connection in the plane of the phrase compared to the sentence are considered. The main means of connection between the components of a co-ordinate conjunctionless phrase – intonation and the order of constituents are described. Co-ordinate conjunctionless phrases include those that correlate with co-ordinate conjunctive phrases, the components of which are connected with co-ordinating conjunctions «і», «й», «та» or opposite «а». It is found out that at the formal-grammatical level, such asyndetic and syndetic syntaxemes are synonymous, but semantically differ in expressiveness. In addition, extended (polycomponent) and narrowed (two-component) series with homogeneous and heterogeneous constituents are typical for conjunctionless phrases, which in most cases tend to interchange positions. A distinctive feature of the extended series is that the last component can be connected with cumulative conjunction, thus imposing a shade of limitation of the series. Therefore, the set of such specific features represents the highest level of independence and equality between words, which form a co-ordinate conjunctionless phrase.

Keywords: phrase, co-ordination, conjunctionless phrase, conjunctive phrase, formal-grammatical level, semantic-syntactic level, copulative phrase, independent coordination, predicative.

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1. Introduction

The problem of the expediency of distinguishing conjunctionless phrases as a kind of co-ordinate phrases requires a revision of traditional views on the specifics of the syntactic relationship between syntaxemes of different levels in general and between the components of the phrase in particular. In modern domestic linguistics, which began to develop independently since the beginning of the XXI century, there are many fresh ideas about the nature of the phrase, which go beyond the limited framework of the traditional conception, commonly called Vinogradov's. Many linguists (I. Vykhoanets, P. Dudyk, O. Melnychuk, M. Stepanenko, K. Shulzhuk, etc.), who deny the monopoly of subordinate phrases and appeal to the distinguishing of co-ordinate ones, substantiate the expediency of considering the conjunctive and conjunctionless connection between the constituents of co-ordinate phrases. However, there are no works in linguistics, that would comprehensively cover the specifics of formal and grammatical organization of conjunctionless phrases, so the novelty of our research is to try to argue the expediency of granting the status of conjunctionless phrases as a separate type of co-ordinate ones.

The aim of the research is to find out the peculiarity of the formal-grammatical organization of conjunctionless co-ordinate phrases. Achieving this goal necessitates the solution of the following tasks: 1) to justify the advisability of allocating conjunctionless co-ordinate phrases; 2) analyze the specifics of the formal-grammatical level of these phrases; 3) determine their differential features.

In order to implement the goals and objectives, general scientific and special linguistic methods were used: the method of comparison – to prove the expediency of distinguishing the conjunctionless type of connection in the phrase; method of analysis and synthesis, descriptive method – to characterize the nature of the asyndetic connection between the components of the co-ordinate phrase; distributive, component analyzes, as well as analysis by direct components – to determine the classification parameters of conjunctionless co-ordinate phrases.

2. Expediency of distinction co-ordinate conjunctionless phrases

Conjunctionless phrases were outside the research areas for a long time because the main discussions in linguistics were holding on around the nature of conjunctionless sentences as one of the means of communication.

Nowadays, similar to compound and complex sentences, linguists distinguish between co-ordinate and subordinate phrases. If the opinion about the appropriateness of separating conjunctionless sentences is acknowledged, then we have every reason to consider the combination of full words *оптимістичний, життєстверджуючий* in the sentence *Визволений народ вимагає оптимістичного, життєстверджуючого мистецтва* (Honchar, 2012: 13) as a phrase. Since every phrase is a component of a sentence and realizes its differential parameters within it, it is worth comparing the nature of these conjunctionless syntactic units.

In the study of conjunctionless type of connection and conjunctionless composite sentence I. Sviatobachenko identifies several main approaches (Sviatobachenko, 2011). According to the first approach, an asyndetic sentence is a contextually dependent unit of speech with text-forming functions. N. Shvedova and the authors of “Russian Grammar” do not oppose conjunctionless sentences with conjunctive and use the term “conjunctionless combination of sentences” (Shvedova, 1980). At the same time, L. Bulakhovskyi talks about the existence of only two types of asyndetic sentences – conjunctionless compound and conjunctionless complex (Bulakhovskyi, 1951), which forms an approach to this type of sentence through the triad opposition “asyndeticity – co-ordination – subordination”. Another view is declared in S. Doroshenko’s works, who defends the independent status of conjunctionless sentences and denies the separation of conjunctionless compound and complex varieties of it: “asyndeticity is a way of formal-syntactic connection of components, according to which the organization of the whole syntactic structure is based not on conjunctions and connecting words but on grammatical elements that perform important constructive functions in the grammatical design of a composite sentence” (Doroshenko, 2019: 538). According to this linguist, the lack of a material means of communication deprives the constructions in question of the opportunity to oppose the conjunctive ones and therefore gives all non-conjunctive structures “grammatical independence”. A. Zahnitko considers asyndetic constructions as a kind of periphery, noting that “conjunctionless composite sentence differs from isometric conjunctive compound and complex sentences as in combining its parts are used both common for asyndetic and syndetic types of connection means and purely specific” (Zahnitko, 2011: 733). In our opinion, the most relevant approach is the one according to which the conjunctionless connection is

formally opposed to the conjunctive one, however, co-ordinate and subordinate sentences, as well as sentences with undifferentiated syntactic connection, are distinguished within the conjunctionless connection in general. As I. Vykhovanets notes, “formally and grammatically asyndetic sentences should be contrasted not with compound and complex sentences but with conjunctive sentences in their entirety, while from the point of view of differentiation of syntactic connections and semantic-syntactic relations conjunctionless and conjunctive sentences can be intersected, embracing identical syntactic connections and semantic-syntactic relations” (Vykhovanets, 1993: 347). In fact, three sentences *Ви розгортаєте сіно, простеляєте плаца, лягаєте горілиць, дивитесь на чорно-синє, глибоке зоряне небо і відпочиваєте* (Ostap Vyshnia, 1989: 212), *Ліс стоїть задумливий: йому ось-ось треба своє пишне вбрання скидати* (Ostap Vyshnia, 1989: 253), *У всякого своя доля і свій шлях широкий: той мурує, той руйнує...* (Shevchenko, 2002: 206) have a similar structure at the formal-grammatical level: parts are connected asyndetically, but at the semantic level the first sentence conveys the meaning of the sequence of events, which co-ordinating copulative conjunctions can also represent, so this sentence correlates with the similar co-ordinate conjunctive sentence: *Ви розгортаєте сіно, (і) простеляєте плаца, (і) лягаєте горілиць, (і) дивитесь на чорно-синє, глибоке зоряне небо і відпочиваєте*; there are causal relations between the parts of the second sentence, which can be correlated with a complex causal sentence: *Ліс стоїть задумливий,, (бо) йому ось-ось треба своє пишне вбрання скидати*; with regard to the third construction, it has no conjunctive counterpart, i.e., according to I. Vykhovanets, it belongs to non-differential conjunctionless constructions.

In the phrase plane the conjunctionless connection may correlate with the conjunctive one. In the sentence *Прийшла весна, прийшла красна, / Розкішна, люба, чарівна!* (Voronyi, 2010: 20) combination of *розкішна, люба, чарівна* forms a number of homogeneous members combined with intonation. The components of a co-ordinate conjunctive phrase are arranged linearly, subordinate to the same word in the sentence and being at the same level of syntactic dependence also form a series of homogeneous members: *В ці часи ви чуєте і над собою, і перед собою, і за собою, і праворуч, і ліворуч шум – свист качиних крил* (Ostap Vyshnia, 1989: 212). Co-ordinate conjunctive phrases are characterized by the relative grammatical equality of components and the lack of formal and grammatical dependence between them. This specificity is provided with co-ordinating conjunctions, but as we see from the examples, conjunctionless combination of equal constituents is also possible.

The main means of connection is intonation and word order in conjunctionless constructions. Phrases outside the context of a sentence are deprived of a clear intonation pattern, but intonation should be understood not only as an element of speech. O. Peshkovskij once emphasized this considering intonation as a separate section of grammar. According to A. Bagmut, intonation performs three main functions: constructive, cognitive (identifying), and distinctive (Bagmut, 1980). The latter two are directly related to communication, and the constructive manifests itself at the level of language and participates in the creation of sentences and phrases as well. O. Peshkovskij argues that intonation becomes a grammatical tool when the meaning of a particular type of intonation is identified with the meaning of the certain group of conjunctions (Peshkovskij, 1956). At the level of the phrase, this statement proves that the co-ordinate conjunctionless phrase differs from the co-ordinate conjunctive one only by syntactic means, not by meaning: *І пада сніг лапатий, волохатий / Спокійно й величаво над селом* (Rylskiy, 1976: 61) – *І пада сніг лапатий, (і / й / та) волохатий / Спокійно й величаво над селом*. Conjunctionless phrases are not an arbitrary combination of any words, as firstly, the set of components is determined by the communication situation, and secondly, they

have a logical linear arrangement chosen by the communicant for this act of communication. The most vividly it is illustrated with sentences in which conjunctionless phrases express the semantics of the sequence of events: *На паниціні пишеницю жала, / Втомилася; не спочивать / Пішла в снопі, пошкандибала Івана сина годувать* (Shevchenko, 2002: 559); *Влетіла ластівка, защebetала і вилетіла* (Vupnyuchenko, 2005: 70).

A. Zahnitko's remark that in the process of historical development of language new variants of syntactic constructions are constantly emerging is fair, and O. Potebnia once proved that asyndeticity is older than syndeticity. This fact gives every reason to hypothesize that conjunctionless phrases with co-ordinate nature originated earlier, and conjunctive phrases are derived from them. Conjunctions, which act as connectors of two or more constituents, appear as a kind of compilers, which are superimposed on the intonation and together with it convey the formal-grammatical relations within the phrase.

3. Differential features of co-ordinate conjunctionless phrases

The absence of conjunctions, intonation, and word order as a means of connection between components are the classification features of co-ordinate conjunctionless phrases, which are the basis for the manifestation of other specific features of these syntaxemes.

Co-ordinate phrases include those asyndetic constructions that correlate with the corresponding conjunctive ones. Some conjunctionless phrases can be related to those in which the means of connection are co-ordinating cumulative conjunctions *і, й, та (і)*. At the semantic level, both types of phrases convey a touch of simultaneity or sequence of actions: *Треться, мнеться – думає минеться* (Ророва, 2011: 252) – *Треться (і / й / та) мнеться – думає минеться; Сон та й да ніколи не обрида* (Ророва, 2011: 128) – *Сон, й да ніколи не обрида; Круг мене кохалося поле, шепотіло, цілувалось* (Vupnyuchenko, 2005: 76) – *Круг мене кохалося поле, (і / й / та) шепотіло, (і / й / та) цілувалось*. Another group is formed by conjunctionless phrases that are identical to those in which the means of coherence is the adversative conjunction *а*. The following syndetic and asyndetic phrases display the semantics of opposition / comparison: *Ріж нитку довгу, слово кажі коротке* (Ророва, 2011: 63) – *Ріж нитку довгу, (а) слово кажі коротке; Лихоманка – не матка: трясе, не жаліє* (Ророва, 2011: 132) – *Лихоманка – не матка: трясе, (а) не жаліє; Серце старого запорожця не сумує з того, а радіє – Серце старого запорожця не сумує з того, радіє* (Kashchenko, 2006: 419). It is noticeable that in such constructions the negative particle *не* functions near one of the components. Of particular note are co-ordinate phrases in which the presence / absence of a material means of connection changes the meaning of the whole syntaxeme: in the texts of different discourses there are a significant number of phrases with cumulative conjunctions of negative semantics *ні, ані* and their repetitive variants *ані ... ані, ні ... ні*. The transformation of these units into the conjunctionless ones changes the semantics of the negation to the affirmation: *Сьогодні він ні читає, ні пише – Сьогодні він читає, пише; У неї на кухні ні хліба, ні пирогів – У неї на кухні хліб, пироги*. However, in the part of such phrases the presence / absence of the conjunction only strengthens / weakens the expressiveness of the construction: *Не вір ні старостам, ні свахам, бо всі вони брешуть* (Ророва, 2011: 318) – *Не вір старостам, свахам, бо всі вони брешуть; Ні докорів, ні балачок про те вже більше не було* (Vupnyuchenko, 2005:30) – *Докорів, балачок про те вже більше не було*.

In co-ordinate asyndetic phrases, intonation is the main means of realizing the semantic-grammatical connection of components. It can impose a marker of enumeration or comparison on the constituents, giving the whole phrase more expression and dynamics

compared to the corresponding conjunctions, thus forming a kind of grammatical and stylistic constructions-synonyms: *А в нас яку не вдарии кайлом скелю – зівсюди рине кров, а не вода* (Kostenko, 2020: 270) – *А в нас яку не вдарии кайлом скелю – зівсюди рине кров, не вода; Може навіть не тижні, а цілі роки минуть* (Kostenko, 2020: 166) – *Може навіть не тижні, цілі роки минуть; Люблю чернігівську дорогу – весною, влітку, восени* (Kostenko, 2020: 302) – *Люблю чернігівську дорогу – весною, (і / й / та) влітку, (і / й / та) восени; Хай буде сніг, і музика, і вечір* (Kostenko, 2020: 363) – *Хай буде сніг, музика, вечір.*

Among conjunctionless composite sentences, there are sentences of open and closed structure. As A. Zahnitko notes, “all sentences of open structure of conjunctive and conjunctionless type are similar in structure, because regardless of the conjunctive or conjunctionless combination of predicative parts they can be classified as a separate structural variety of compound sentences, characterized by relative internal homogeneity within which the opposition of asyndetic and syndetic connection is not significant” (Zahnitko, 2011: 736). Similarly, in the phrase we distinguish conjunctionless constructions of extended and narrowed series, which correlates with the concept of open and closed structure. The relevance of using the terminology “extended series”, “narrowed series” is justified by the fact that, firstly, asyndetic phrases as components of the sentence form a series of homogeneous members within it. Secondly, openness makes it possible to add an unlimited number of constituents but in a speech act that occurs in a certain communicative situation there is a limit, and therefore the addition of new components has a limitation. So, the probability of involvement / removal of other components is explained more accurately by the concept of expansion / narrowing of the series. This specificity of these syntaxemes determines their non-binary nature as a manifestation of another differential feature. As O. Melnychuk rightly notes, “co-ordinate conjunctionless connection is used mainly in co-ordinate phrases that have more than two homogeneous members” (Melnychuk, 1972: 108): *Мій предковичний, / мій умитий росами, / космічний, вічний, / зоряний, барвінковий* (Kostenko, 2020: 211); *Заворушилось серце в Марини, забажала її душа щастя, волі, веселості* (Nechui-Levytskyi, 1997: 77). Frequently the last component of such a phrase is joined with the cumulative conjunction *і, й, та*. At the formal-grammatical level the series can be continued in such phrase, but semantically the presence of the conjunction near the last constituent seems to limit the list: *Хрести, лелеки, мальви і жоржини / були його єдині глядачі* (Kostenko, 2020: 214); *Страждаю, мислю, плачу і сміюсь* (Kostenko, 2020: 387). Attention is also drawn to the constructions, the members of which are able to group in pairs. In this case, there can be a conjunctive connection inside the pair, between the pairs – conjunctionless connection, or vice versa: the components are connected asyndetically, and their pairs – with a conjunction: *романи й повість, оповідання й казки; веселий, шасливий, але втомлений*. Such phrases are considered to be combined constructions with conjunctive-conjunctionless connection.

Examples of co-ordinate conjunctive phrases of a harmonic series, the components of which belong to one part of the language, are classic but the series can also be disharmonious: *Вона купила білу, з червоними макамаи сукню; У її майстерні можна помилуватися картинами, виконаними у різних техніках: випалені, вирізьблені, з піску та із стрічок; Вона стояла трохи схвильована, спантеличена, але щаслива*. In addition, it is possible for most of these phrases to rearrange the components: *І пада сніг лапатий, волохатий / Спокійно й величаво над селом* (Rylskyi, 1976: 61) – *І пада сніг волохатий, лапатий / Спокійно й величаво над селом; Дороги рівної не знати – / Зизаги, хвилі, блискавки, /*

Та завжди: хай горять магнати! / Хай квітом квітнуть бідняки! (Rylskyi, 1976: 90) – Дороги рівної не знати – / Хвилі, зигзаги, блискавки, / Та завжди: хай горять магнати! / Хай квітом квітнуть бідняки! Exceptions are those that express the semantics of sequence of events or oppositions, as in similar co-ordinate compound phrases with cumulative and adversative conjunctions, change the reordering is impossible: *Ченці наче по команді підвелися з місців, **перехрестились** до образів, **подякували** хазяїнові та хазяїці, **накинули** на голови клобуки, **забряжчали** чотками й ханком **вийшли** на вулицю (Nechui-Levytskyi, 1977: 311)* (sequence of actions); *На Бога **покладайся**, розуму ж **тримайся*** (Porova, 2011: 26) (comparative and opposite relations).

The question of the presence of predicativity within the conjunctionless co-ordinate phrase deserves special attention. Modern linguistics abounds in different views on the category of predicativity but common to all is the idea that the minimum syntactic unit that has predicativity is a sentence, and the phrase is devoid of it. We consider Mirchenko's view is appropriate, as he distinguishes predicativity as a complex category that expresses the relationship of the report in the sentence to the reality, forms a sentence as a communicative syntactic unit, and predicativity as a formal-syntactic category, which refers only to two-member simple sentences and indicates the syntactic connection between the subject and the predicate (Mirchenko, 2004: 194). G. Pochepcov considers predicativity even more globally, arguing that it is a way of actualizing extraverbal reality, a synthesis of the categories of "subjective" and "objective"; it is the primary and the most general human awareness of reality (Pochepcov, 1981). The interpretation of predicativity in the broadest sense as the correlation of the statement with reality makes it possible to reinterpret the phrase in general and the conjunctionless one in particular. Every phrase is a condensed communicative unit, as it denotes a combination of objects of extraverbal reality, which, on the one hand, become the subject of communication itself, and on the other hand – phrases are components of the sentence for which predicativity is essential. Similar to the philosophical interpretation of the relationship between a part and the whole, according to which the part has the characteristics of the whole, the phrase is characterized by hidden potential predicativeity. Co-ordinate conjunctionless phrases, like conjunctive units, form a series of homogeneous members in the sentence, not only secondary parts of the sentence, but also principal parts, ie, they can be elements of the core of predicativity positioning as homogeneous subjects and predicates: *Єремія **вмився**, **вбрався**, **вийшов** н алею (Nechui-Levytskyi, 1977: 320); Чекали **зйомки**, **зали**, **павільйони**, – / чекало все! Іван **косив** траву (Kostenko, 2020: 214).*

4. Conclusion

The change of the human mode of thinking and worldview of the XXI century testifies to the need to go through the traditional postulates of linguistics, and the syntactic system is not an exception. That is why nowadays linguists say that co-ordination in the plane of a phrase can be manifested syndetically with means of co-ordinating conjunctions and asyndetically through prosodic means, in particular intonation. Conjunctionless co-ordinate phrases have all the parameters for their allocation to a separate class, like conjunctionless composite sentences in the language system. They are copulative syntaxemes, in which the means of connection between the components is their direct contact location in combination with a certain intonation pattern, which is indicated in the writing by the appropriate punctuation marks. A distinctive feature of this group of phrases is the absolute correlation at the formal-grammatical level with conjunctive phrases, where the means of connection

are either cumulative conjunctions *i / ŭ / ma*, or the adversative one *a*. As for the semantic-syntactic level, the corresponding asyndetic and syndetic co-ordinate phrases convey identical semantic relations, the only difference is stylistic: conjunctionless constructions are more expressive and dynamic. Also, asyndetic phrases have the highest level of independence between components compared to conjunctive ones, as the presence of a conjunction imposes restrictive semantics, which is vividly represented with constructions of the combined type: **розумний, добрий та успішний; красивий, розкішний, але дорогий**. Independent coordination as a form of interconnection of the conjunctionless phrase allows to expand or narrow the series of these phrases according to the communicative situation. These syntactic units are not devoid of predicativity, as most linguists claim because being components of the sentence, they are one of the means of creating its predicativity, forming a series of homogeneous subjects and predicates.

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**STUDENTS COMMUNICATIVE CULTURE
IN INTERNATIONAL COMMUNICATION:
PEDAGOGICAL ASPECT**

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Summary

The pedagogical aspect of students' communicative culture in the conditions of international communication is investigated in the paper. The interpretation of the essence of the categories "culture", "language", "language personality", "culture in the conditions of international communication" and "pedagogical aspect of communicative culture of students in the conditions of international communication" is analyzed in the paper. It is established that the main task of the lecturer in the organization of communicative culture of students in the conditions of international communication is the formation of communicative-dialogue space. It is determined that the pedagogical aspect of students' communicative culture in the conditions of international communication distinguishes two interrelated components, such as general and personal principles of communication. The structure and the main functions of the communicative culture of students in the conditions of international communication and the connection of the subjects of communication for the development of the competitiveness of the higher education institution are analyzed in the paper. It is established that the most significant for the pedagogical aspect of communicative culture of students in the conditions of international communication are personal indicators in individual-personal, in communicative, in socio-psychological and in moral-political plans. It is established that scientists distinguish three components of students' communicative culture in the conditions of international communication that are cognitive, aesthetic and behavioral components. It is determined that for the formation of communicative culture of students in the conditions of international communication it is necessary to form in students: the respect for other peoples and cultures; to teach to respect any person, representative of another socio-cultural group; to stimulate the desire to learn about different cultures; to form tolerance for ethnic cultures. It is determined that in order for the communicative culture of students in the conditions of international communication to be successful, the lecturer must have not only certain personal qualities, but also professionally significant ones. It is established that special exercises for the development of international communication skills should be used in the educational process.

Keywords: communicative culture, international communication, higher education institutions, pedagogical aspect, students.

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1. Introduction

In today's conditions, the problem of forming a communicative culture of students in the context of international communication is attracting more attention from lecturers, sociologists, culturologists and psychologists around the world. In recent years, academic mobility of students around the world has increased significantly and at the same time there has been an increase in the number of foreign students, which indicates the intensive development of cooperation in education and defines as the most relevant and important area of higher education institutions in many countries. The development of interstate academic cooperation, which includes comprehensive, multicultural education and development of young people, contributes to the spiritual rapprochement of peoples, international relations, the formation of a culture of international communication and leveling the world's borders.

A lot of higher education institutions in Ukraine have long been training a large numbers of foreign students, cooperating with higher education institutions and enterprises in other countries, participating in student exchange programs and more. Due to these conditions the task of forming the communicative culture of students in the context of international communication is becoming increasingly important for higher education institutions of our country.

The urgency of the studied problem is due to the processes of globalization and informatization, increasing migration flows, expanding international contacts with carriers of different cultures at different levels, the formation of a single world economic, informational, cultural and educational space. Strengthening the cultural diversity of society required a revision of global human values, the need to develop productive ways of teaching and educating the younger generation, including intercultural relations. The process of globalization taking place in the modern world contributes to the expansion of cultural boundaries, affects the intensity of intercultural communication. The expansion of intercultural ties inevitably leads to new social, political, religious, economic and educational problems.

The modern learning environment should be aimed at developing personal intellectual abilities, critical thinking skills, communication skills important for understanding cultural diversity, establishing contacts between representatives of different nationalities in economic, social and political spheres at different levels. Thus, the vital need to cultivate the culture of international communication is explained by the fact that the population of many countries and regions in its composition is multinational.

2. The essence of communicative culture of students

Domestic and foreign scholars are convinced that communicative culture in international communication is one of the important aspects of basic personality culture, which should be considered a key component of culture, where foreign language culture serves as a system to improve professional and socially significant personality qualities, and language is a means of communication and the development of communicative culture in the context of international communication.

Analysis of the structural components of communicative culture in international communication, namely "culture", "language", "language personality" and "culture in international communication", shows that there is no unity in their understanding and not always these and similar concepts are revealed quite accurately, but there are common functions that they perform for the development and formation of communicative abilities of the individual.

Kendzior P. argues that culture can be seen not only as a material asset and spiritual values created by man in the process of purposeful activity, but also primarily as a relationship that arises in the accumulation, exchange and transmission of cultural meanings. The use of the activity approach in the educational process enriches it with new values and meanings that accumulate in various layers of the educational potential of a culture (*Kendzior, 2017: 32-35*).

If we talk about the development of culture, it is impossible without intercultural communication, where the cultural function is performed by the language in which it is carried out and formed a linguistic person who owns it, where this fact is confirmed by American linguist Sepir E. The scientist denying the biological definiteness of language, noting that language is a purely human, almost instinctive way of transmitting thoughts, emotions and desires, emphasizes the communicative function of language as an expressive form of communicative behavior (*Sepir, 2001: 31*).

Hymes D. argues that language, on the one hand, determines the cultural reality of people who belong to different cultures, have to some extent special communication systems, and on the other hand, cultural values and beliefs partially create a linguistic reality. Thus, being one of the main components of culture, language contributes to the fact that culture can be both a means of communication and a tool for dividing them into different nationalities and peoples. Language becomes an important tool in the process of learning about another culture, which is reflected in language. That is how a person can develop the ability to evaluate, compare and accept the uniqueness of different cultures (*Hymes, 1972: 269-293*).

On the basis of generalizing psychological and pedagogical analysis, communicative culture is an instrument of the subject of communication, the internal result of its communicative activity, and determines integrative personal education, which includes knowledge of etiquette, communication system of motivated, morally oriented communicative qualities and human skills which have a personal meaning for her and regulate the behavioral aspects of her communication with other people.

The structure of the communicative culture of the individual includes the communicative potential of the individual, as well as such integral communicative properties as sociability, contact, communicative compatibility, communicative knowledge and skills, communicative abilities, empathy and mutual understanding. One of the important elements of communicative culture is communicative competence, which involves the adequate application of knowledge, skills, abilities, norms and values to solve educational, developmental and upbringing tasks (*Yashchenko, 2010: 7*).

The culture of international communication should be understood as “a set of special knowledge, skills and beliefs, as well as adequate actions and deeds, which are manifested both in interpersonal contacts, when the subjects belong to different cultures, and in the interaction of different ethnic communities, which allow on the basis of intercultural competence to quickly and painlessly reach mutual understanding and agreement of common interests” (*Levanova et al., 2008: 69*). The host country is constantly faced with the problem of optimizing the living and academic life of foreign students who have to go through a difficult process of adapting to new living conditions and learning.

The pedagogical aspect of students' communicative culture in international communication is the ability to listen, ask questions, analyze answers, understand the student and be able to clearly present educational material so that students are attentive, observant, able to establish contact, see and understand the reaction of the audience to convey their attitude to what is happening, to interest, to capture the explanation so that students understand the educational material (*Kamyshna, Pavlovyeh, 2020: 44*).

The pedagogical aspect of students' communicative culture in the context of international communication is defined as a system of direct or indirect connections, lecturer interactions, which are realized by verbal and nonverbal means, computer communication, information exchange, modeling and management of communication and regulation professionally pedagogical relations (*Volkova, 2006: 23*).

3. Characteristic features of students' communicative culture

One of the main tasks of the lecturer in organizing the communicative culture of students in international communication is the formation of communicative-dialogue space between the management of higher education institutions and contact audiences, between students and lecturers (*Pavlov, 2013: 56*). The pedagogical aspect of students' communicative culture in the conditions of international communication distinguishes two interrelated components:

1) the general principles of communication, which establish the nature of the social order, preservation of the values of the past, the implementation of pedagogical and educational activities of research and teaching staff and students, to achieve a common goal and objectives of the educational process;

2) the personal principles of communication, citizenship, style of communication – a set of specific techniques and tools by which the researcher and student, depending on the specific conditions of the educational process implements its activities on the basis of their own knowledge, professional experience, skills and abilities (*Kamyshna, Pavlovysh, 2020: 43*).

In Figure 1. shows the structure and the main functions of communicative culture of students in the context of international communication and communication of the subjects of communication for the development of competitiveness of higher education.

The most important for the pedagogical aspect of students' communicative culture in the context of international communication are personal indicators in several areas: individual-personal, communicative, socio-psychological, moral and political (see Fig. 2).

Researchers identify three components of students' communicative culture in the context of international communication:

- cognitive component – formation of students' ideas about each other and ideas about personal qualities of each participant in the process of international communication;
- aesthetic component – external and internal features of the participants of international communication evokes a certain attitude;
- behavioral component – words and deeds addressed by student to students, and vice versa.

Considering the communicative culture of students in the context of international communication as an integrative personal education, in its structure distinguish the following indicators:

- by cognitive criterion (knowledge of etiquette norms of communication, ways of their manifestation; understanding of the essence of communicative culture and qualities that indicate its presence; awareness of factors influencing the formation of communicative culture);
- by emotional and value criteria (emotionally positive attitude to etiquette norms of communication, the desire to use them, the development of empathy, adequate self-esteem).
- by behavioral criteria (ability to adhere to etiquette norms in the process of communication, expression of empathy and communication skills) (*Yashchenko, 2010: 7*).

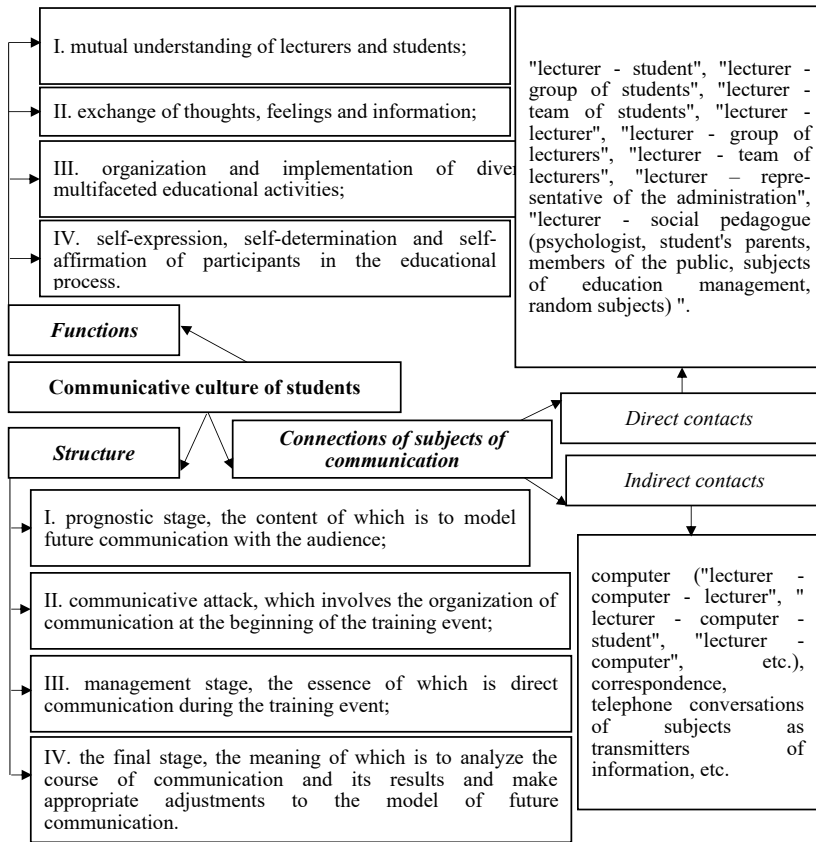


Fig. 1. Characteristic features of communicative culture of students in the conditions of international communication

Source: Compiled by the authors based on official data of (Kamyshna, Pavlovych, 2020: 44; Kohut, 2013: 77).

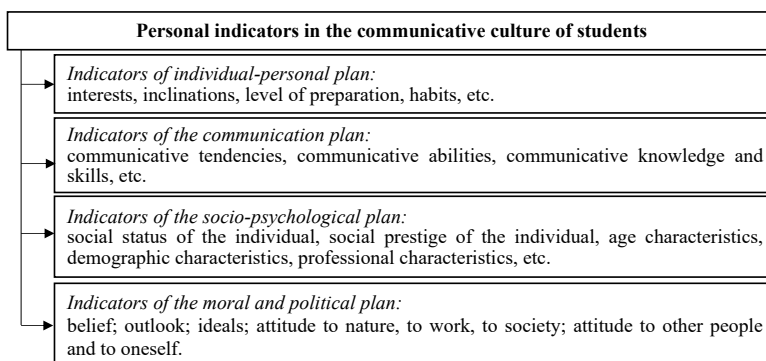


Fig. 2. Personal indicators in the communicative culture of students in the conditions of international communication

Source: Compiled by the authors based on official data of (Maksimova, 2012: 20).

4. Formation of communicative culture of students

The following fundamentally important points must be taken into account when forming the communicative culture of students in the conditions of international communication:

- specific historical level of nation development and national relations;
- richness and diversity of cultural identity and traditions of communication;
- historically established traditions and experience of relations between nations and nationalities (neighboring and distant);
- features of spiritual appearance, culture, psychology, moral qualities of the individual, which are in international communication.

In order to form a communicative culture of students in terms of international communication, they need to form:

- respect for other peoples and cultures, readiness for business cooperation and interaction, joint solution of universal problems;
- necessity to learn to respect any person, a representative of another socio-cultural group;
- to stimulate the desire to learn about different cultures;
- to form tolerance to ethnic cultures, to teach to prevent or creatively overcome conflicts.

Educational work on the formation of these qualities should take place in the educational system. The use of elements of multiculturalism in education can contribute to the education of tolerance. The main thing in solving this problem will be, first of all:

- 1) comprehensive mastery by students of the culture of their people, as a prerequisite for integration into other cultures;
- 2) teaching students human rights and peace;
- 3) formation of ideas about the diversity of cultures in Ukraine and the world;
- 4) fostering a positive attitude towards cultural differences that would contribute to human progress;
- 5) creating conditions for the integration of students into the culture of other nations;
- 6) formation of skills and abilities of effective interaction with representatives of different cultures;
- 7) education in the spirit of peace, tolerance, humane international communication.

On the basis of invariant universal values, national and international values, paradigms of convergence and integration of spiritual values, basic culture of the individual, its compliance with the realities of the changing world must be formed and maintained. In the open multicultural educational space the process is realized, the main purpose of which is to create conditions that provide protection and support for the development of each person. Accordingly, in the practice of work it is advisable to introduce methods and technologies that contribute to an individual approach to social formation, human adaptation to the intercultural educational environment through various activities, which in turn:

- 1) activates the processes of self-knowledge, self-development, which promotes the development of mechanisms of reflection;
- 2) aimed at identifying educational subjects of their most important needs and problems in organizing the process of pedagogical interaction, in which everyone has the opportunity to identify personally significant goals of life (individual sphere of self-realization);
- 3) aimed at finding means and forms of adaptation, protection and support of the individual of a consultative, informational and practical nature.

More flexible, soft pedagogical systems and learning and development operations that promote individual adaptation to culture in the form of education should be tested in multicultural educational institutions. Special characteristics of pedagogical technologies in the course of educational operations of multicultural education are: cooperation, dialogue, activity-creative nature, focus on support, protection of individual development, providing pedagogical technologies free of charge, protected space for independent decision-making, variety of ways, forms and techniques of creative self-expression of the individual's cultural identification (Baubekova et al., 2020).

In order for the communicative culture of students in the conditions of international communication to be successful, the lecturer must have not only certain personal qualities, but also professionally significant (see Fig. 3).

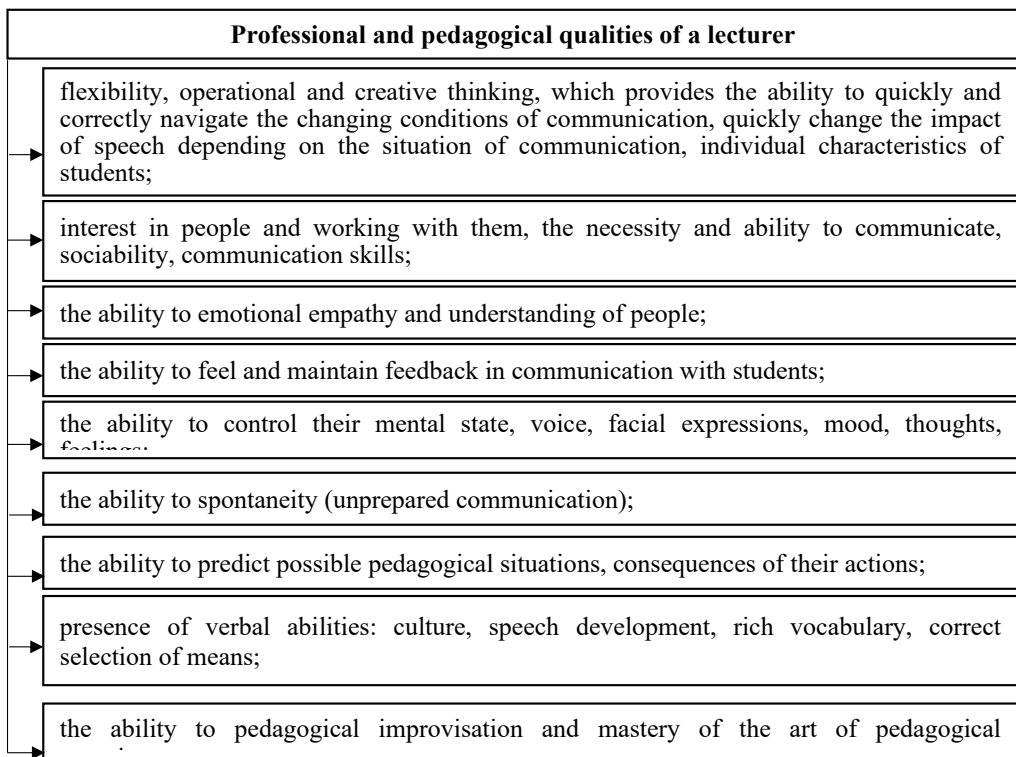


Fig. 3. Professional and pedagogical qualities of the lecturer

Source: Compiled by the authors based on official data of (Maksimova, 2012: 20-21).

Thus, the main qualities of a lecturer are a skilled communicator, who is not limited to knowledge of his subject, and his communicative behavior is based on pedagogical tact, correctness, demanding of himself and students, stimulates cognitive interest, motivation of students to learn (Shkurenko, 2017).

Research and teaching staff and students need to learn the art of international communication, so scientists have developed special exercises to develop international communication skills. Researchers combine these exercises into two groups, namely: practical

mastery of the technique and technology of international communication and mastery of the communication system in a particular educational situation (see Fig. 4).



Fig. 4. Exercises for the development of international communication skills

Source: Compiled by the authors based on official data of (Kamyshna, Pavlovykh, 2020: 44).

In turn, the formation of communicative culture in the context of international communication is a process of developing in teachers and students' professional communicative qualities, competencies and character traits that will contribute to further professional communicative activities. Thus, professional-pedagogical communication is the lecturer's ability to navigate and use the features of professional-pedagogical communication, which are based on the relevant competencies in a particular professional field (*Shkurenko, 2017*).

5. Levels of communication between lecturers and students

Proper communicative culture of students in the context of international communication eliminates negative emotional stress in students (fear, insecurity), resulting in joy, desire for joint activities (*Kamyshna, Pavlovykh, 2020: 44*). Among the research and teaching staff we can distinguish their inherent levels of communication with students: primitive, manipulative, standardized, conventional, playful and personal (see Table 1).

When considering the problems of forming the communicative culture of students in the context of international communication, it is necessary to take into account that this process is continuous and takes place in the learning environment. It involves individuals (adolescents, young people, their parents and lecturers) and various communities (ethnic groups, groups of friends and acquaintances, family groups, etc.); as formal associations – student groups, classes, and informal (age groups of youth, adolescents at the place of residence); as elements familiar to lecturers (educational and upbringing systems), and phenomena and concepts that have not previously attracted their attention, such as language and traditional ritual spheres.

Table 1

Levels of communication between lecturers and students

Levels of communication	Characteristics
Primitive	For a lecturer, a student is not a partner, but a subject, so research and teaching staff demonstrate their superiority. Student for lecturer is a means to an end.
Manipulative	An entity that chooses a partnership at this level is close to the primitive level in its approach to another person, but in terms of performance it is close to the conventional level. Characteristics of the manipulator (lecturer): for him a partner (student) – a rival in the game, which must be won using various techniques. The student is the object of manipulation.
Standardized	The formal structure of communication dominates. Weak attention to personality. The lecturer adheres to the standards of etiquette, but such behavior is superficial and, without affecting the personal level, is implemented at the level of masks. The student is an independent object, feels the indifference of the lecturer behind the “mask” and, in fact, remains the object of manipulation.
Conventional	This level is characterized by a genuine interest in the student, care for him, willingness to take his place. One reveals one’s own openness, although not completely, but within the framework of the situation in which communication takes place; positions are diverse, complementary. Contact at the conventional level requires from the lecturer and student a high culture of communication, the ability to maintain dialogue.
Game level	This level is characterized by a genuine interest in the student’s personality, openness and diversity of communication, which makes communication festive, exciting and productive in terms of mutual understanding, mutual knowledge. The game level is effective in pedagogical communication, when the lecturer plays a distracted role, which needs the help of knowledgeable students.
Personal	It is based on a deep interest in the student, recognition of the independence of his personality. The researcher is into students, all his activities are aimed at developing their spirituality, personal communication becomes spiritual communication. The student trusts the research and teaching staff, who is the authority and the best mediator between them and knowledge about the world, people, themselves. Acquisition of a personal level of communication by a research and teaching staff is a necessary condition for a strong culture of interaction between lecturer and student.

Source: Compiled by the authors based on official data of (Kamyshna, Pavlovyh, 2020: 44; Shkurenko, 2017).

The culture of international communication is a complex phenomenon that includes the following structural components: cognitive, motivational, emotional-communicative and behavioral-activity. Accordingly, the process of educating students’ communicative culture in the context of international communication includes:

- acquainting students with the system of scientific knowledge about the rights and freedoms of man and peoples, about nations and their relations, about races and religious denominations;
- formation of civic and universal feelings and consciousness;

- development of positive experience of culture of communication with people of different nations, races and religious denominations;
- ensuring high moral motivation of actions and behavior of student youth in the process of interpersonal communication.

Forming the ethnocultural interests of students, instilling in students the idea that each of them is a value for our multinational state, forming a person capable of respecting the values of another culture, lecturers cultivate a multicultural personality (*Baubekova et al., 2020*).

Therefore, the optimal communicative culture of students and lecturers in international communication is communication that creates the best conditions for the development of student motivation, creative nature of activities to form his personality, which provides a favorable psychological climate, prevents psychological barriers, allows maximum use in educational process personal and professional skills of research and teaching staff.

6. Conclusion

Research and analysis of scientific works allows us to conclude that the process of formation of communicative culture of students in international communication is directly related to the formation of values and value orientations of the individual, reflecting the coexistence of subjects in the multicultural space of society, the need for adequate orientation in the system of non-cultural values, the development of communicative abilities, creative activity and tolerance. Since in pedagogy all dimensions of culture focus on the individual, and any cultural phenomena reflect his inner world and creative potential, so for the educational field is fundamentally important to understand culture not only as a historically defined level of society, creativity and human abilities, reproduced in the types and forms of organization of life and human activity, but also as a factor in the formation of personality.

The process of educating students' communicative culture in the conditions of international communication, directs it to the formation of: student's readiness for dialogue with speakers of foreign culture; a new hierarchy of youth value orientations; understanding of universal morality and national and ethnic characteristics of the bearers of foreign culture and becoming a specialist as a subject of culture. This will help in further research to determine the levels of formation of communicative culture of students in the context of international communication, which will contribute to the training of new generation professionals in Ukrainian society.

The study does not cover all aspects of the problem of forming a communicative culture of students in international communication. Prospects for further development, in our opinion, provide for the improvement of methodological tools for pedagogical diagnosis of communicative culture and the content of the technological component in the organization of the educational process.

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STEM-EDUCATION PRINCIPLES IN THE FOREIGN-LANGUAGE COMMUNICATIVE COMPETENCE BUILDING (ON THE DATA OF NON-LANGUAGE MAJOR STUDENTS)

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Summary

As the title implies the article addresses the subject of *STEM*-education principles in foreign-language professional communicative competence building. Particular attention is given to the *STEM*-approach implementation at the non-language faculties, by psychology and physical rehabilitation students, in particular. The investigation summarizes some of the results already achieved in this field and present different researches' views on the given topic.

The paper is interdisciplinary in nature and written at the turn of various fields of science: humanities, social, natural, computer and information sciences. It is stressed that *STEM* is not a separate discipline but a kind of knowledge integration that allows synthesizing of multiple knowledge models into a common one. The articles attempts to reveal the key stages of *STEM*-education elements application. It is drawn the attention that *STEM*-oriented approach in language learning create innovation environment where students develop in equal measure hard- and soft skills, uncover their creative capacity and engage in collaboration and networking. The research distinguishes and analyzes the characteristic features and the role of the project method in *STEM*-oriented learning. Considerable attention is paid to the specific socio-psychological characteristic of Generation Z.

It is concluded that present-day education tends to look for the new methods, approaches, technologies and *STEM*-approach is one of the best ways out in modern educational process modernization and updating.

Keywords: *STEM*-education, non-language major students, Profession-Oriented English, Z-generation, e-learning, information-communications technology, hard- / soft skills.

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1. Introduction

Article's relevance is predetermined by the *STEM*-principles effectiveness and its popularity in the education policy of many leading countries. *STEM*-oriented learning enables the possibility to strengthen the natural science component in the training curriculum and to combine science, technology, engineering, art, cultural and humanities on the base of cross-disciplinary collaboration. Professionally-Oriented English Teaching from the perspectives of *STEM*-education provides students not only with high level of foreign language communicative competence but with applied knowledge and skills in their professional domains, as well. That is why it is so essential while learning English at non-language faculties to form and develop students' professional competence within the *STEM* latest trends.

Analysis of recent studied and publications. Theoretical and practical issues of *STEM*-education are viewed both in Ukraine and abroad. The key *STEM*-principles and their use in secondary education are distinguished and described in the studies by

N. Morze (2016), T. Andrushchenko (2020), S. Buliha (2020), O. Barnoi (2020), S. Brevus (2020), V. Velychko (2020), N. Honcharova (2017), L. Hloba (2017), K. Huliaiev (2018), V. Kamyshyn (2020), H. Kikot (2019), E. Klimova (2017), O. Komov (2017), O. Lisovyi (2018), L. Nikolenko (2019), R. Norchevskyi (2017), O. Patrykeieva (2018), M. Popov (2016), M. Rybalko (2017), I. Stetsenko (2018), S. Tsinko (2018) O. Stryzhak (2020), I. Chernetskyi (2017), I. Vasylyshko (2018), M. Harrison (2017), D. Langdon (2011), B. Means (2015), E. Peters-Burton (2014), N. Morel (2016), J. Confrey (2016), A. House (2017) etc. Considerable attention to the *STEM*-principles utilization in language learning is paid by foreign researches, such as S. Shutler (2014), M. Dzhonatana (2016), V. Devida (2015), K. Dzhonsona (2014), M. Koelera (2015), Dzh. Mura (2014), F. Heesa (2016), A. Beyll (2015), S. Dzhozefa (2014). Nevertheless, in spite of enormous range of studies in this field the application of *STEM*-approach in Professionally-Oriented English teaching with non-language students is still underexplored and requires further research. **The subject matter** of the article is to trace the process of *STEM*-education development; to provide insight into the use of *STEM*-integrated approach in English teaching/learning at non-language faculties; to draw attention to the psychological and educational specificities of Generation Z; to examine the ways of *STEM*-technology implementation while teaching English.

2. What is *STEM*

STEM is considered a forward-looking approach in contemporary education. It is not a separate subject but a kind of framework for teaching and learning that implies knowledge integration of various domains of science. It is due to the *STEM*-principle the learning process can be performed on the verge of different subject areas that allows future professionals to become excellent in-demand experts in the most perspective spheres of human activity (science, education, medicine, economy, art), multitasking, more motivated and to extend their basic knowledge in programming, modelling, robotic technology etc.

STEM-integration predominantly coincides with natural and engineering sciences rather than with humanities. Although in fact, the *STEM*-capacity is enormous and its principles can be applied to any academic field, foreign language curricula and methodology is not an exception. Nowadays proficiency in a foreign language is viewed not only as a communication tool of information exchange but also as crucial factor of social, economic, scientific, technological and cultural progress. In the context of current realities, the prime objective of foreign language study is to develop the competence and skills, necessary for dealing in the professional areas. Because of increasing demands for specialists who are able to use appropriately their foreign language communicative potential to facilitate different types of activities, to ensure various modes of communication, to foster national cultures interaction etc. These requirements reflect the social priorities essence, directed at language education domain, determine the pedagogical objectives at social and economic standards.

To understand how *STEM*-oriented principles can upgrade the vocational educational system and train competent, flexible and adaptive professionals one should understand what *STEM* is and what potential benefits it has. The term *STEM* is an English abbreviation, which means: **S** – Science, **T** – Technology, **E** – Engineering, and **M** – Mathematics. Although recently the abbreviation has been extended by a new component: **A** – Art. It is worth noticing that on this point Art notion occupies a broad range of its varieties: music, painting, poetry, literature etc. Both approaches (*STEM* and *STEAM*) to education are characterized by interdisciplinarity, in other words it is not a single discipline, but an overall, integrated education system. One more

distinctive feature of *STEM*-oriented learning is its applied nature. It differs fundamentally from traditional learning parameters because it provides the conditions for simultaneous personal growth, professional and foreign language skills development, analytical and creative capability improvement, skills gaining of co-solving tasks, team working, learning in the course of independent and group work: “The human success in XXI century is completely dependent on their individual and professional abilities, but the most important and crucial among them are critical and creative thinking, stress resistance, the strong motivation to realize inner potential” (*Krasnovytskyi, Bielkina, 2003: 74*).

Having analyzed *STEM*-theoretical basis one can highlight its following characteristic features that distinguish it from the conventional educational principles:

1) **Firstly**, thanks to *STEM* students gain more time and possibilities for independent work, they learn to determine problem and find solutions in sustainable and independent manner (the concept of *life-long learning*).

2) **Secondly**, through teamwork participation, they share their experience, exchange ideas, solve problems and establish collaborative projects (principles of *project management*).

3) **Thirdly**, rote learning (memorizing technique, based on repetition) is increasingly replaced by meaningful learning – practical, active, long-lasting and fully engaged learning process. In the long run, it is the most productive way to encourage understanding and active learning techniques not by mechanical cramming but by focusing on the outcomes of the learning process that relates new teaching material to already acquired knowledge.

4) and **Fourthly**, there is a simultaneous relationship between hard- and soft skills development. *STEM*-technology deals with the interdisciplinarity, bringing together different academic disciplines into one activity. According to the famous Czech educational reformer J. Comenius: “All the knowledge grow from the same root – outer reality, they are interrelated and need to be learned in collaboration” (*Comenius, 1957: 26*).

It is for these reasons many leading European countries began work on the *STEM*-education implementation and development. Such strategic direction is aimed at establishing innovative educational environment that gets young generation interested in science, engineering, designing, and robotics. New education paradigm includes elements of blended and integrative learning, electronic / mobile learning, cloud technology, and elements of fundraising training, crowdfunding and facilitation techniques. As Russian philosopher, F. Granin claims: “Education – is a self-sufficient progress engine of the XXI humanity’s model. Knowledge society, where the main priorities are put on the investments in human capital – the most precious of the resources” (*Granin, 2004: 169*).

3. Generation Z and clip thinking

Generation Z (or Gen Z for short or colloquially zoomers), a term used to refer to people born between mid-to late 1990s and early 2012. Compared to their predecessors (Generation Y/ Millennials,) Z-youngsters are typically thought of being socially progressive, well behaved, abstemious, environmentally friendly, and risk-averse, more engaged in academic performance and future job prospects. However, at the same time, Gen Z youth is more exposed to intellectual disabilities, psychiatric disorders, addictive behavior, and low adaptability to the today’s world challenges. They spend much time on electronic devices and less time read books, developing shorter and shorter attention span, cognitive mental processes misbalance, which is a key feature of so-called “*clip thinking*” (fragmentary, collage, mosaic etc. perception) that leads to attention deficit disorders, reluctant attitude towards study, chaos in decision-making. Clip

consciousness means inability to concentrate for long, problems with complex, unsettling tasks solution, reduced ability to analyze, synthesize and summarize, absence of clear logic, rules and dogmas. Instead, they are living in reality, overflowing with short pictures, intense images, networks, fragmentary information.

The American futurologist E. Toffler was the first who spoke about the clip thinking phenomena in his book "*Future shock*". He was convinced that clip consciousness is a result of the information society mass impact on the individual who becomes an over-excited person with affected psyche (Toffler, 1970). In Europe, this notion was introduced by Russian scholar and philosopher F. Girenok. In his works, the researcher stressed that youth conceptual thinking stop playing a significant role in the contemporary world. Non-linear thinking replaces linear and binary one and is in opposition to the so-called book consciousness, which, in the information society with screen culture, loses its value, since screen greatly displaces a book. Even despite the fact that a book has collaborated in dialectic synthesis with a screen and resulted in electronic reader's appearance. Reading as a leisure activity type is predominantly a share of generations, growing up in the book culture but not in the screen one (Girenok, 2016).

Having analyzed a number of existing definitions it can be concluded that clip thinking is not a text but an image oriented and has the complex influence on human's consciousness by means of images and sounds. It does not presuppose long-lasting concentration on certain text; a person rapidly shifts the focus of attention and perception from one clip to another, from one fragment to another, from site to site. That leads to the mosaic, eclectic world picture formation that lacks coherence and systemacity. Clip thinking representative it is a digital epoch product who managed to adjust to data boom, paying for this by the lack of meaningfulness, deep world understanding and things understanding that are going on in the real world. As J. Baudrillard would say, it is a kind of anthropological reaction on the digital revolution.

It is hardwired into youth's brains to be an integral part of information society since they are closely interconnected in the single media environment by means of social nets, *Internet*, *You Tube*, messengers, e-mails, various podcasts etc. All these factors strongly influence engagement level and reduce work capacity and mental performance. It is for these reasons technical sciences (such as applied Mathematics, Physics, Chemistry, Engineering etc.) among youth are viewed as something complicated, dogmatic, little income-generating, boring, requiring significant time and financial consumption, compared with other human activities. Consequently, there is a sharp shortage of highly qualified specialist in the I. T. Technology domain to service state-of-the-art communications and production.

STEM-approach takes into account all these aspects and combines different methods, techniques, modes of information coding in order to provide modern educator with all necessary teaching tools to modernize the academic discipline content to meet present-day world demands.

4. STEM-techniques Implementation in Professionally-Oriented English

Development of foreign language professional communicative competence is an important element of *STEM*-concept in general. It presupposes skills of using major discipline professionally oriented vocabulary in appropriate combinability and context, including integrative, interdisciplinary and systematic approaches. Ukrainian researcher G. Kikot correctly emphasized: In the core of *STEM*-oriented approach should be the several academic disciplines integration to train the application of obtained knowledge in the professionally oriented situations, support interest in different subjects and develop critical and creative thinking (Kikot, 2019: 65).

From that perspective, an interesting challenge becomes the creation of *STEM* innovative educational and scientific environment at the Professionally-Oriented English classes at the non-language Faculties. Since foreign language proficiency is verified in communication, the main emphasis in the teaching methods choosing should be laid on the active teaching devices. Therefore, it is desirable to combine foreign language skills development with various communicative situations modelling, team working tasks, problems that need comprehensive solution and stimulate critical abilities analysis and creative thinking. It is important to foster equally hard- and soft skills. If the first one help to master profession the second are responsible for the heights reaching in the professional activity and potential realization. In this respect it would be advisable, at the Faculty of Physical Rehabilitation, Health and Sport, while learning issue-based module «*Sport and Health*», to consider latest trends in sport and fitness (Cycling, Functional training, Cross Fit, Proceodos etc.), novelties in healthy lifestyle industry through the lens of *STEM*-approach, using different wearable technology (devices). Choice spectrum is spectacular, from fitness-tracker, smart watches, heart rate sensors to GPS-navigators and smart glasses. The next point can be project activity process and its presentation that includes Information and Communications Technology implementation, team working, foreign language skills gaining in the process of communicative situation modelling that referred to professional environment.

An equally important issue in the concept of modern education is the relevance of studied academic disciplines. It often happens that students do not have a clear understanding of why they need this or that subject. In addition, it is thanks to interdisciplinary *STEM*-techniques nature that one can attract students' attention and show the applied character of certain knowledge and skills, its future career prospects. Active learning methods helps to understand how theoretical knowledge is converted into the practical experience. In this regard, a vivid example can be an introductory course learning of different psychology branches with psychology-students. Nowadays among a significant amount of graduating students Clinical psychology is in greater demand than Experimental, Human factor, Industrial psychology, psychophysiology etc. because of their interdisciplinary specificity, predominantly with technical knowledge domains, these fields still remain on the periphery. For instance, aircraft psychologist while studying the subtleties of flying activity should investigate not only psychological human's traits but also be competent in psychological regularities of flying techniques application, to take into account a number of factors of its exploitation, the peculiarities of flying tasks, flight conditions etc. All these demand additional professional awareness in this field. Today on the base of aircraft psychology is successfully developing the space-based one. Such innovation environment fosters students' interest in advanced areas of psychology and increases their motivation in foreign language learning, which gives access to the global scientific community, where English is an official language. Project activity with *STEM*-elements use can help in this situation again. As an option, students can form small groups and correlate project management tools with professional English vocabulary to make *SWOT*-analysis (Strengths, Weaknesses, Opportunities, and Threats) and discuss each psychology field separately. It helps to assess advantages and disadvantages, future career prospects, the possible ways of certain psychology field development.

5. Conclusions

STEM-education is one of the most striking XXI educative phenomena that combines innovative pedagogical elements, modern technology, science, humanities, art, engineering etc. The main aim of the given approach is to connect different knowledge fields in one

synergetic dimension in the course of teaching process. *STEM*-concept is multi-vector trend that comprises disciplines, methods, techniques correlation with creative skills fostering to mold a comprehensive personality.

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INTEGRATION OF A METHODOLOGICAL SYSTEM OF TEACHING PHYSICS AND PROFESSIONALLY ORIENTED DISCIPLINES OF THE COURT OF CONTRIBUTION

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Summary

The current state of the education system is characterized by the transition to a new qualitative level, which has positive changes in the teaching of physics and professionally-oriented disciplines based on STEM technologies. Therefore, the current stage of development of physics education aims to solve the problems of formation, development and self-realization of the students/cadets, which becomes possible by creating appropriate pedagogical conditions that promote self-knowledge, self-improvement and development of creative potential.

The article considers the methodological aspects of integration in the development of methods of teaching physics and professionally-oriented disciplines based on STEM technologies. The conceptual apparatus of «integration» and «interdisciplinarity» is outlined. The scientific and theoretical aspect of the methodology of teaching physics based on STEM-technologies in terms of integrated and interdisciplinary approaches is considered, and the effectiveness of the proposed methodological system of teaching physics and professionally-oriented disciplines on compliance with educational programs of technical aviation, which also allows to ensure the formation of the basic conceptual apparatus of physics in students and strengthen their independent cognitive and exploratory activities.

The results of the study were tested and received a positive assessment at various levels of activities.

Keywords: STEM-education, methods of teaching physics, interdisciplinarity, digitalization, applied aspect, integrated approach, institutions of higher education, technical profile.

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1. Introduction

Modern research on innovation is characterized by a tendency not only to subject but also to the methodological analysis of the nature and content of innovation in the context of digitalization (*Tsyfrova adzhenda Ukrainy, 2020*), including physics and vocational education in the XXI century.

The need to use scientific methodology in the study of innovation processes is explained by the fact that any innovation, scientific discovery causes a critical analysis of the accepted content of fundamental end-to-end generating concepts in physics, changing approaches and methods to interpret existing and construct new theoretical concepts and reassess professionally oriented disciplines in the conditions of integration approach and interdisciplinary connections. S. Honcharenko emphasizes the importance of the methodological foundation in the research and organization of innovation processes in educational institutions, as there is a large-scale phenomenon of «pedagogical shamanism and adventurism» (*Honcharenko, 2004: 2–6*).

It should be noted that the problem of realization of interdisciplinary connections and integration of fundamental disciplines, in particular physics, and disciplines of professionally oriented direction acquires great importance.

Integration is one of the features of modern science, which combines theoretical knowledge into a holistic system, reflects the objective world in its unity and development. The integration of modern knowledge of physics, as an important basic science, should be reflected in the disciplines of professional orientation studied by students/cadets in technical institutions of higher education (hereinafter – HEI).

The chosen area of research is related to the research topic «Creating an innovative educational and scientific STEM-learning environment of physics and mathematics disciplines based on ontological approach in terms of digital agent» (state registration № 0121U100279) STEM-Center of the Flight Academy of the National Aviation University (hereinafter – FA NAU) and with research and experimental work of the all-Ukrainian level on «Scientific and methodological principles of creation and operation of the all-Ukrainian scientific and methodological virtual STEM-center» order of the Ministry of Education and Science of Ukraine № 708 from 17.05.2017.

The purpose of the research is to outline the methodological aspects of integration in the development of a methodological system for teaching physics and professionally-oriented disciplines based on STEM technologies.

According to the purpose of the study, the *following tasks* are formulated:

1. Perform an analysis of scientific research, scientific and methodological literature on innovative trends in education and integration approach to develop a methodological system for teaching physics and professionally oriented disciplines.

2. Investigate the problem of the development of integration of physics and disciplines of professionally oriented profile in the educational process of technical HEI, taking into account the concept of STEM education.

3. To develop a methodical system of physics experiments based on STEM technologies, namely with modern teaching kits in physics for cadets/students of HEI, taking into account fundamental physics concepts.

4. Experimentally test the effectiveness of methodological support for teaching physics based on STEM technologies in technical HEI.

The object of research is the educational process in physics and professionally-oriented disciplines in technical HEI.

The subject of research is the methodological aspects of integration in the development of a methodological system for teaching physics and professionally-oriented disciplines based on STEM technologies.

The research was based on the *hypothesis* according to which to theoretically develop and substantiate methodological aspects of integration for the development of the methodological system of teaching physics and professionally-oriented disciplines based on STEM technologies in HEI technical profile, and its introduction will provide a scientifically sound selection of physics content and learning outcomes. If the educational process is based on integrated and interdisciplinary approaches, as well as accompanied by STEM technologies and optimally combined with the methodological support developed by the authors. (Kuzmenko, 2021; Kuz'menko & Sadovyi, 2017; Borota, Kuzmenko, & Ostapchuk, 2021).

The following methods were expediently used during the *research*:

– *theoretical*: analysis of textbooks, research, manuals and publications, educational programs that reflect the problem of research on methods of teaching physics and professionally-oriented disciplines, STEM-education, in order to identify modern physical scientific positions and achievements, trends in physics as a basic science in technical HEI;

– *empirical*: diagnostic and sociometric methods to determine the level of interest and activity of cadets/students in teaching physics and professionally-oriented disciplines using STEM technologies;

– *experimental methods*: pedagogical experiment and experimental verification of the methodical system of teaching physics and professionally-oriented disciplines with the use of STEM technologies in HEI technical profile.

The results of the research were implemented in the educational process of educational institutions of Ukraine: National Center «Junior Academy of Sciences of Ukraine»; Flight Academy of the National Aviation University.

However, the analysis of the content of research (Chapaev, 1998; Dokuchaieva, 2007; Danylenko, 2004; Dychkivska, 2004) shows that quite often the problems of educational innovation are considered rather narrowly, limited to attempts to find solutions only from the standpoint of one. disciplinary theory of innovation process, thus the introduction of elements of integration and their interdisciplinarity reflects qualitative changes in teaching methods of physics and professionally-oriented disciplines (introduction of STEM-technologies, elements of augmented reality, robotics, digital technologies, etc.). We believe that the complexity and multifactorial nature of innovative educational processes necessitates their comprehensive analysis using a number of general scientific approaches.

The process of teaching physics in HEI technical profile should be professionally oriented, taking into account current trends in digitalization, which aims to train highly qualified specialists in the speciality 272 «Aviation Transport». At the moment, it is difficult to predict what difficulties a technical freelance graduate will face in practice and what section of physics he will deal with. To do this, it is necessary to provide an appropriate level of training in physics for cadets/students of the technical field of study using STEM technologies. This training in physics will create a basis for the development of professionally oriented disciplines with an integrated approach and will meet the objectives of the current stage of reforming HEI (development of the Digital Agent of Ukraine).

2. Integration and interdisciplinarity in education

The traditional pedagogical system is developing and acquiring signs of innovation due to interaction with systems of the high level of development (social, economic, political, pedagogical) and integration in its structure and functions of their progressive goals, content, forms of activity. «Integration is a system of systems, the result of systematization of a higher order» (Selevko, 2006: 451).

The definition of «integration» according to the explanatory dictionary of the Ukrainian language is defined as the union of something into a single whole (Novyi tлумachnyi, 2006: 793).

If we consider this concept in the dictionary of foreign words, the «integration» is interpreted as the union of disparate parts into a single common whole, relating to different spheres of life and used in different sciences (Slovnyk, 2022).

The processes of integration in the pedagogical system are associated with qualitative and quantitative transformations of its elements, changes in the relationships between them. The functions of nonlinearity and linearity of the integrative system are manifested in the fact that when one of its elements changes, the others change not proportionally, but according to a more complex law. For example, when integrating the content of education, it is necessary to anticipate several possible consequences of the introduction of certain innovation structures (STEM-laboratories, STEM-centers, innovation hubs, etc.). Therefore, the construction of integrative content can not give the appropriate result without adherence to the principle of continuity. Linearity implies the existence of direct and indirect connections between the elements of the created integrative system, which allows compensating for the shortcomings due to its nonlinear characteristics (Chapaev, 1998: 62).

The generalization of the results of the analysis of scientific research and educational practice makes it possible to identify the most important areas of integration of innovative educational processes in teaching physics and professionally-oriented disciplines based on STEM-technologies, based on three main levels:

- *methodological level* – solving problems of integration of innovation processes in modern education (STEM, mixed learning, e-learning); use of cognitive means of the integrative approach as tools for analysis of innovative pedagogical phenomena; optimization of traditions and innovations in the conditions of modernization of education; building an integrative educational paradigm; synthesis of methodological, theoretical, methodological and technological knowledge;

- *theoretical level* – providing integration links between the main components of pedagogical innovation: neology, axiology and praxeology; creation of invariant integrative models of innovative educational processes; synthesis of principles and conditions of efficiency of all stages of the life cycle of innovation; integration of innovative systems related to different types of pedagogical process (for example, a combination of problem-based and modular learning);

- *practical level* – ensuring continuity between scientific and experimental research and implementation of their results; coordination of the cluster of various innovations that are simultaneously implemented in the HEI of the technical profile; coordination of management of innovative educational processes at different levels: state, regional, in a separate educational institution; designing the integrated content of education and appropriate forms and methods of its development; organization of integrated forms of innovation: innovation centres, laboratories, schools of innovation, etc.

According to G. Shatkovskaya, the process of integration in the educational process is a much broader concept than interdisciplinary connections, which in the content of disciplines

reflect the dialectical relationships that objectively operate in nature and are known by modern sciences. Integration not only strengthens the connection but also ensures the interpenetration of the content of professionally oriented disciplines (*Shatkovska, 2007: 3*). Scientist I. Kovalenko considers interdisciplinary connections as a means of in-depth study of physics by students, to overcome in the subject system of teaching the contradiction between the disparate assimilation of knowledge and the need for their synthesis, for integrated application in practice (*Kovalenko, 2011*).

The foundation of the interdisciplinary direction of the study of the phenomena of innovation was laid at the beginning of the XXth century by the theorists G. Tard, I. Schumpeter and M. Kondratiev. Their main ideas became the basis of modern innovation theories, in which the engine of social progress is not one, but a set of social, technological, economic and other factors of society.

Significant developments in the implementation of the principles of interdisciplinarity in the study of innovation processes are presented in the works of R. Akoff, V. Andrushchenko, V. Vasilkova, V. Dudchenko, E. Durkheim, S. Krymskyi, N. Kropotova, S. Kurdyumov, T. Levovitskyi, O. Markov and others.

Thus, the above-mentioned scientists in the process of substantiating the strategy and content of modernization of education according to modern trends go beyond traditional pedagogical theories, searching for and integrating innovative ideas from almost all scientific fields.

The methodological arsenal of modern pedagogy, namely the didactics of physics and professionally-oriented disciplines based on STEM technologies requires methods of both theoretical understanding and practical analysis of problems that can not be solved only using the pedagogical methodology. It is integrated and interdisciplinary approaches that position changes in the education system with the process of the interpenetration of new in all scientific and practical areas, which brings research to the metatheoretical level of construction and conceptualization of models of innovative educational processes, including STEM education (*Chernetskyi, Polikhun, & Slipukhina, 2017; Kuzmenko, Dembitska, 2017; Kuzmenko, 2017*).

Leading scholar V. Vasilkova identifies the need to go beyond the internal disciplinary paradigm as the main principle of interdisciplinary discourse, in order to weaken its inherent limitations, expand ways of describing reality, which have some researchers, and shift perception in meta position to individual participants in relation to individual participants, interdisciplinary discourse (*Vasilkova, 2004: 72*).

The interdisciplinary approach directs the research of innovative educational processes at the methodological, theoretical and technological-practical levels. The importance of the methodological level lies in the integration of laws and principles, the complementarity of different approaches and methods of scientific knowledge of the essence and sources of origin, formation and establishment of new in education.

At the theoretical level of interdisciplinary research, the issues of diffusion into pedagogical innovation of concepts, concepts, models, principles, methods, ontological ideas from other scientific fields, as well as the expediency and legitimacy of their application are addressed.

The interdisciplinary perspective of research of praxeological problems of pedagogical innovation allows synthesizing theoretical constructs from various scientific spheres for the development of technologies of designing, examination, realization and monitoring of innovations in HEI. In an interdisciplinary perspective, praxeological tasks are directly related to applied needs and cover all substructures of innovation: goals, principles, content, methods, tools and forms, etc.

The problem of expediency of interdisciplinary approach in the educational process, O. Afanasyeva notes that interdisciplinary integration reflects the processes of unification of academic disciplines to address epistemological, methodological, technological and practical needs. Integration is interpreted by the researcher as ensuring the integrity of the educational process (*Afanaseva, 2006*).

The principle of interdisciplinary relations as a separate didactic principle, suggests that the content of academic disciplines should reflect those dialectical relationships that exist in nature and are known by modern science. Interdisciplinary links are the equivalent of interdisciplinary ones, and their methodological basis is the processes of integration and differentiation of scientific knowledge. The psychological basis of interdisciplinary relationships is the formation of intersystem associations that allow reflecting the various objects and phenomena of the real world of unity and opposition, in their multifaceted and contradictory (*Metody sistemnogo issledovaniya, 1980: 42*).

Levels of integration of scientific knowledge, V. Sydorenko considers through the directions of scientific research to solve complex interdisciplinary problems (*Sydorenko, Bilevych, 2004*): intradisciplinary (within individual sciences); interdisciplinary (within two or three branches of science); supra disciplinary (high degree of integration); transdisciplinary (integration of scientific concepts, theories of methods and techniques in philosophical concepts).

The solution to the problem of overcoming the contradiction between the need to ensure a high level of integration of scientific knowledge in physics and the accelerating process of differentiation of disciplines of the cycle of professionally oriented training is seen at the intra- and interdisciplinary (interdisciplinary) levels to study disciplines of professionally oriented direction in the HEI of technical profile.

Peculiarities of interdisciplinary interaction in his research outline L. Shestakova (*Podopryhora, 2015*), namely through:

- *structure of modern scientific knowledge*, which is formed in the process of influence of natural science knowledge; techno-knowledge (artificial intelligence, virtual and augmented reality, ICT technologies); socio-knowledge; humanitarian knowledge;
- *the structure of modern scientific knowledge* is a constant and dynamic interaction between all four branches of modern knowledge;
- *humanitarian knowledge* penetrates all branches of scientific knowledge at the present stage of education development. This is manifested, in particular, in the presence of features of different scientific schools and scientists, in the style and methods of thinking of different researchers, in the presence of heuristic and intuitive methods of work in different fields of scientific knowledge, in the use of associations and others.

The integrative approach is aimed at establishing the unity of basic research, applied research and practical experience in innovations in school management, reforming the content of education, ensuring the continuity of all levels of education, etc. (M. Berulava, S. Honcharenko, V. Ilchenko, V. Lednev, V. Serikov, M. Chapayev and others).

The set of theoretical propositions explaining the essence of the phenomenon of integration in modern pedagogy are united by the general concept of «integrative approach»: as a result of integration previously independent elements are combined and synthesized into a single system based on functional relationships, mutual transition and complementarity, management, the convergence of theories of teaching and education, unification in the systems of education and its content. The main methods of integration include: unification, universalization, categorical synthesis, extrapolation, generalization, modelling, systematization (*Vozniuk, Dubaseniuk, 2009 : 95–96*).

The strategic concept of integration of the theory and practice of innovative education is determined by a triad of components: basic research, applied research, practical implementation of innovations. However, often the gap between methodological, theoretical and methodological knowledge reaches alarming proportions (*Chapaev, 1998: 96*). Therefore, modern innovation is characterized by a tendency to integrate the goals, content, functions of neology, axiology and praxeology, which determines the integrity of the processes of creation, perception, evaluation, development, implementation and analysis of the effectiveness of new in pedagogical practice. The methodology of innovation emphasizes the unity of the three components of the innovation process: the creation, development and implementation of innovations. This three-component process is the object of study in pedagogical innovation (*Hutorskoj, 2005*).

3. Methodical system of teaching physics and STEM

Methodological provisions of pedagogical integration are a function and method of knowledge of the theory and practice of innovation processes. As methodological knowledge, pedagogical integration can ensure the continuity of traditional and new, theoretical knowledge and practical experience in teaching physics and professionally-oriented disciplines using STEM-technologies. As a tool for transforming practice, pedagogical integration can eliminate duplication, i.e. optimize the pedagogical process, lead to the creation of new theoretical and practical objects: concepts, theories, pedagogical systems, training courses, activities, models, technologies, teaching aids (*Vozniuk, Dubaseniuk, 2009*).

Methods of teaching physics is a pedagogical science that solves the problem of ensuring a highly effective educational process in physics. It determines the place of physics in the educational process of free technical education; the content of teaching physics; the structure of the educational process; the ways, methods and means of ensuring high efficiency of the educational process in physics as a fundamental science for professionally oriented disciplines.

The transition to STEM training requires improving the methods of teaching physics and professionally-oriented disciplines based on STEM technologies in an integrated and interdisciplinary approach, which includes: the use of new methods, techniques, teaching aids that would help solve several methodological problems; application and introduction of interesting and important scientific achievements in the educational process in physics, as well as strengthening those aspects that stimulate and activate the independent cognitive activity of cadets/students during the study of physics-based on STEM-technologies in HEI technical profile.

Applied integrative research is aimed at finding ways to apply theoretical concepts in the development of technologies for innovation in the activities of HEI. Practical aspects of integration cover all substructures of innovation: goals, principles, content, methods, tools and forms. «Integrative-pedagogical concepts, condensing a rich set of integrative means, are used as technological-methodological and technological tools for the implementation of integrative-pedagogical activities. They can on their basis give birth to integrative pedagogical technologies» (*Chapaev, 1998: 48*).

Researchers of innovation processes emphasize that in the conditions of high competition and rapid development, typical for the XXI century, it is possible to achieve atypical for a certain industry growth rate only by being able to manage these three different aspects of innovation for development. Each of them is very important, but to pay attention to only one is not enough to make full use of all opportunities for the development of the organization (*Taker Robert, 2006: 17*). Given the complexity of innovative educational processes, their nonlinear

nature, the simultaneous implementation of the cluster of innovations, to achieve success it is necessary to strengthen the integration of actions of all subjects of innovation in all aspects of innovation.

One of the effective ways to improve the methodology of teaching optics, which allows solving the problem of active independent learning work of students/cadets, is the widespread introduction into the educational process of innovative learning technologies, including the latest information technologies and modern tools.

The methodological system of physics and professionally-oriented disciplines is outlined by us in our research (*Fizika. Posobie, 2013; Sadoviy, Kuzmenko & Gavrylenko, 2021*).

Along with this, the methodology of teaching physics and professionally-oriented disciplines on the basis of STEM-technologies of technical HEI should:

- not exclude the possibility of using those tools and educational equipment in physics, which have justified themselves and passed the test of educational practice;
- new teaching aids should complement existing ones and provide opportunities to expand their functions following the digitalization of education, in which the student is considered as an active subject, on the conscious learning activities which largely depend on the result of the educational process;
- at different stages of formation of physical knowledge of physics-based on STEM-technologies, to provide growth of the level of independent cognitive-search activity of cadets/students for which provision of created sets of equipment can act, where all elements and get the best results and achieve the appropriate level of physical education, awareness of the role of human personality in it;
- to provide an opportunity to develop the ability of students/cadets to use modern ICT tools and computer technology, focusing them on the further use of digital tools in educational activities and the future professional field.

4. Experimental efficiency of methods of teaching physics

One of the tasks of our study was to verify the results of the introduction of methods of teaching physics and professionally-oriented disciplines based on STEM technologies.

During the research and experimental work, diagnostic research methods (surveys, testing, interviews, questionnaires) were used, which allowed obtaining statistical data. Diagnostic methods were used in experimental and control groups.

The study, adjustment and generalization of the results of approbation of the proposed methodology of practical and experimental tasks by cadets/students of physics and professionally-oriented disciplines were conducted through selective attendance, discussion with teachers of opportunities to improve the learning process development of STEM education.

The analysis of the results obtained during this pedagogical experiment was aimed at testing the quality and effectiveness of the proposed method of teaching physics using modern teaching aids, taking into account STEM education and comparing the achievements of students of experimental and control groups. In each group that participated in the experiment, tests were conducted, as a result of which the level of knowledge, skills and abilities during the proposed method of teaching physics was tested, and comparisons were made with students who studied the traditional method. When selecting questions for tests, preference was given to the optimal amount of multilevel tasks, questions, answers to which required knowledge and understanding of the observed phenomena in the study of physics and the basic laws of their course: the ability to explain experimental facts and justify the necessary conditions under which of a physical

phenomenon; explain the methods and ways of managing its basic laws of phenomena and processes, the possibility of their practical use.

Statistical methods allow to establish the probability of certain events in the pedagogical process, to predict learning outcomes, to establish in the pedagogical process, to predict learning outcomes, to establish average, critical and optimal norms and deviations from the norms to be followed by the pedagogical process.

For statistical processing of results of forming pedagogical experiment methods of check of statistical hypotheses based on comparison of measurements of some property in two independent samples (Kolmogorov-Smirnov criterion) were applied.

To conduct a pedagogical experiment, we selected 341 students in the control group (CG) and 353 students in the experimental group (EG), a total of 694 students took part in the pedagogical experiment with free technical education in Kyiv, Kropyvnytskyi.

The Kolmogorov-Smirnov test is determined to be sensitive in the application to find any difference in the distribution function of this property in some of the considered populations.

The Kolmogorov-Smirnov criterion was also used to conduct the pedagogical experiment. Laboratory work on optics «Determination of light wavelength using a Jung interferometer» was performed in EG and KG according to various methods. During this work, the experimental groups used modern learning technologies and developed this set of manuals (*Kuzmenko, Sadovy & Vovkotrub, 2015; Fizika. Posobie, 2013*) and guidelines (*Borota, Kuzmenko & Ostapchuk, 2021*), which greatly facilitate performing laboratory work in physics in the context of the development of STEM education, and the control groups used traditional methods.

Students from Kropyvnytskyi and Kyiv took part in the experiment. The experiment meets all the requirements necessary to meet the Kolmogorov-Smirnov test as a mathematical statistic of the nonparametric method in pedagogical research (*Grabar, Krasnyanskaya, 1977*) to determine the effectiveness of experimental methods. The results of student's laboratory work were evaluated on 6 levels, aimed at performing experimental and computational skills.

In order to determine the performance of laboratory work, we divided the scope and results of its implementation into 6 levels, which corresponded to its main objectives:

1. Recording and clear formulation of the topic, the purpose of work and equipment.
2. Carrying out and availability of records necessary for measurements and calculations, the correct filling of the made table.
3. Execution of calculations, measurement errors with the indication of deviations of individual values of one quantity.
4. Execution of a drawing or graph that accurately illustrates from a physics point of view the progress of work and the accuracy of the measured values, the results of calculations.
5. Formulation of the conclusion at which it is necessary to specify regularities of the investigated size.
6. Performing an additional task or answering test questions.

Accordingly, during the pedagogical experiment, the hypothesis $H_0 : F(x) = G(x)$ or assumption about the uniformity of the functions of distribution of scores on the performance of laboratory work in physics among students of experimental and control groups according to traditional and experimental methods was tested.

For this purpose, 341 students from the number of students who performed laboratory work in physics and studied according to different variants of the methodology were taken into the CG and 353 students into the EG. As a result of random selection, two samples were formed (f_1 – students who studied by experimental methods, f_2 – by traditional methods), respectively, $n_1 = 353$ and $n_2 = 341$ the student.

The data for finding the Kolmogorov-Smirnov characteristic are shown in Table 1.

Table 1

Table of data for finding statistics of the Kolmogorov-Smirnov test based on the results of laboratory work “Determination of light wavelength using a Jung interferometer” in experimental and control groups

№	Number of correctly completed tasks	Absolute frequency in sample № 1 (EG), f_1	Absolute frequency in sample № 2 (CG), f_2	Accumulated frequency in the sample № 1 (EG), $\sum f_1$	Accumulated frequency in the sample № 2 (CG), $\sum f_2$	The difference of the accumulated frequencies in the samples № 1 and № 2 $ \sum f_1 - \sum f_2 $
1	6	118	115	353	341	12
2	5	88	86	235	226	9
3	4	67	64	147	140	7
4	3	44	42	80	76	4
5	2	30	30	36	34	2
6	1	6	4	6	4	2

An alternative hypothesis $H_1 : F(x) \neq G(x)$ assumes that the functions of distribution of scores are not the same in the two considered sets of students.

The maximum value of the expression for the difference of accumulated frequencies in samples №1 and № 2 $|\sum f_1 - \sum f_2|$ is 12.

$$\text{That is: } T_1 = \left(\frac{1}{n_1}\right) \cdot \max |\sum f_1 - \sum f_2| = \left(\frac{1}{353}\right) \cdot 12 = 0,034;$$

$$T_2 = \left(\frac{1}{n_2}\right) \cdot \max |\sum f_1 - \sum f_2| = \left(\frac{1}{341}\right) \cdot 12 = 0,035.$$

The critical value of the criterion is found by the formula for relatively large samples ($n > 40$). Accordingly, for our case, the experimental values $n_1 = 353$ and $n_2 = 341$.

$$W_{1-\alpha} = \lambda_\alpha \frac{\sqrt{(n_1 + n_2)}}{n_1 \cdot n_2} \quad (\text{Grabar, Krasnyanskaya, 1977}).$$

For the value $\alpha = 0,05$ we matter $\lambda_\alpha = 1,36$

$$W_{1-\alpha} = 1,36 \cdot \frac{\sqrt{694}}{120373} \approx 0,0003$$

Thus, the inequality holds:

$$T_{obs.} > W_{1-\alpha}, \text{ that is } (0,035 > 0,0003).$$

Отже, робимо висновок, що у відповідності до правила прийняття рішення про нульову гіпотезу відхиляється і приймається альтернативна гіпотеза H_1 , що вказує на різницю у розподілі оцінок у балах за виконання лабораторної роботи у процесі навчання фізики в контексті розвитку STEM-освіти, що навчалися за експериментальною і традиційною методиками у ЗВО технічного профілю навчання.

Therefore, we conclude that following the rule of deciding on the null hypothesis, the alternative hypothesis is rejected and accepted, which indicates the difference in the distribution of scores for laboratory work in the process of teaching physics in the context of STEM education and traditional methods in HEI technical profile of training.

5. Conclusions

Thus, the current reform of physics education in the context of STEM education in Ukraine is closely interrelated with the requirements of preparing graduates HEI for active self-realization in various spheres of human activity, taking into account individual personality, abilities and capabilities, interests and plans for the future.

Accordingly, the modernization of the educational process is based on its humanization and requires the strengthening of the subject-object approach in his organization, which should raise the level of cognitive activity, which in this process should manifest itself both as to its object and as the subject. These aspects require the development of new methods of teaching physics based on STEM technologies, the introduction of modern technologies and the latest advances in psychological, pedagogical, methodological and logistical support of the educational process during the study of physics in technical HEI.

Experimental verification confirmed the correctness of the previous positions contained in our assumptions, the reliability of the results of the comparative experiment was proved by various methods of mathematical statistics recommended for pedagogical research, namely the statistical criterion Kolmogorov-Smirnov.

Research should be continued in the following areas: further study of the problem of content development, as well as methods of improving the digital aspects of the study of optics to develop the activity and independence of subjects; development of methods of teaching physics and professionally-oriented disciplines with the use of virtual technologies.

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THE PROBLEM OF PEDAGOGICAL EVALUATION OF THE MOTIVATIONAL AND VOLUNTARY COMPONENTS OF PROFESSIONAL READINESS OF FUTURE PILOTS OF TACTICAL AVIATION FOR COMBAT FLIGHTS

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Summary

The work is dedicated to the problem of professional readiness of future military pilots as an indicator of high-quality higher education in the field of military aviation under the conditions of increased intellectual, physical, psychological and psychophysiological requirements to pilots of modern tactical aviation. The author's approach to the scope and structure of the specified professional readiness is revealed and substantiated. The basic components of its structure are defined as cognitive, activity, operational, motivational-volitional, physical and psychophysiological. The importance and significance of the motivational and volitional components as a special integral psychological complex of the personality, which actualizes the implementation of professional activity and largely determines its productivity, has been reasonably justified. Furthermore, its consideration as a planned pedagogical goal within the educational process of future military pilots is substantiated, which necessitates its pedagogical evaluation. With the aim of the latter, the author has elaborated an appropriate criterion apparatus (axiological criterion, its indicators and levels) and developed a comprehensive method of pedagogical evaluation (based on existing diagnostic methods by K. Zamfir (in modification of A. Rean) to assess motivational indicator and by N. Stambulova to evaluate emotional and volitional indicators of the specified criterion. The results of the author's experimental measurement are presented. The obtained empirical data indicate the effectiveness and potential of the proposed approach.

Keywords: aviation, military pilot, readiness for professional activity, qualimetric assessment, psychological readiness.

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1. Introduction

The intense scientific and technological progress of military aviation over the past thirty years, given its strategic role in modern military confrontations (*America's Air Force, 2014*), puts forward high qualification requirements for the professional readiness of military pilots. This challenge is common to all countries with aviation in the world and is especially relevant for Ukraine, because the combat capabilities of Ukrainian tactical aviation largely depend on the level of national security in the face of undeclared aggression against our country.

Extreme intellectual, physical, psychophysiological and psychological loads that a military pilot has to withstand professionally in the process of piloting a modern fighter objectively require a powerful psychological resource, the core of which is the motivational and volitional complex of the individual. It is not unexpected that the formation of

relevant qualities and skills shall take place in the process of professional training at a higher military educational institution (HMEI) – during the educational process. Thus, the developed motivational and volitional components of professional training of future military pilots should be considered as a planned pedagogical result of the indicated process, and this result has to meet the requirements of pedagogical assessment (*Nevzorov, 2021a: 1758-1759; Nevzorov, 2021b: 144*).

The purpose of our research is to present and substantiate the results of the author's pedagogical empirical assessment of the motivational and volitional components of professional readiness of future tactical pilots for combat flights. Within the strategic purpose, the tactical objectives of the article are to substantiate the author's understanding of these components and the developed criterion apparatus.

The empirical study was conducted using the method by K. Zamfir (in modification of A.A. Rean) to measure the motivational component and the diagnosis by N.E. Stambulova to measure the volitional component.

2. Primary (Basic) Concepts of the Problem

For a better understanding of the essence of the problem we have raised, it is necessary to explain and clarify the meaning of a number of concepts that are of primary importance for the disclosure of the problem.

Tactical aviation of Ukraine is the main component of the Air Force of the Armed Forces of Ukraine (AF of the AF of Ukraine), which is designed to perform a wide range of combat missions during tactical operations (*The doctrine "The Air Forces of the Armed Forces of Ukraine", 2020*).

Future military pilots of tactical aviation – cadets of HMEIs (in this case, the only aviation university of Ukraine – Ivan Kozhedub Kharkiv National Air Force University), who receive higher education in military aviation majoring as “Bachelors of Military Management of Air Units, Tactical Level Officers” and assigned after the second year of training in the ranks of tactical aviation.

Combat flights – the main type of professional activity of military pilots, which is aimed at performing a combat mission; flights to perform combat missions (assignments) (*Rules of state aviation flights..., 2015*).

Professional readiness of future tactical aviation pilots for combat flights – a set of flight-related theoretical, practical, special psychological, physical and psychophysiological qualities of a graduate of aviation HMEI that allow them to carry out their core professional activities (performance of combat flights) confidently and effectively immediately after obtaining the relevant profession (*Nevzorov, 2021c*). According to the author's approach, which is substantiated by the author in the doctoral thesis research, the basic structural components of the above professional readiness are cognitive, activity, operational, motivational, volitional, physical and psychophysiological ones.

Pedagogical assessment – a scientific and pedagogical technique, the essence of which is that numerical values characterizing some features of pedagogical objects or phenomena are experimentally determined, or the class to which they belong is indicated on the basis of a previously obtained numerical system (or system of classes) and isomorphic empirical system with relationships (*e.g., Annyenkova et al., 2021: 6-8; Xrykov, 2018: 65*). It consists of quantitative (qualimetric) evaluation and qualitative interpretation of its results.

3. Essence of the Motivational and Volitional Components

The psychological component of professional training of future military pilots is focused on the formation of a stable state of psychological resources of the individual, which provides systematic regulation of internal processes of the human psyche before, during and after performance of professional activities, especially the combat flights. A key feature of this condition is a comprehensive ability to mobilize and adjust the motivational, emotional, cognitive, operational and physical resources of the individual at the right time to perform professional tasks. In this context, the author agrees completely with the view that the psychological readiness to which psychological training at higher educational institutions is directed is in its essence the management of their own professional behavior (*Ganderatal., 2000: 128*). This condition is especially relevant in the case under consideration because the profession of a military pilot is associated with a high degree of risk and stress and is one of the most emotionally exhausting.

In military psychology, this type of readiness for combat activity is interpreted, in general, as “a holistic, collective manifestation of personality, which indicators are the internal orientation to certain behavior and appropriate mobilization of all forces for active combat”, and the psychological readiness for professional activities of military pilots is understood as “orientation to flight, mobilization, confidence and concentration” (*Djachenko et al., 1985: 13*). In this regard, Yu.V. Bolenko points out that the psychological readiness of a professional determines the quality, stability and success of professional activity (*Bolenko, 2012: 5*). At the same time, this type of professional readiness of military pilots for professional activities is considered in military psychology as one of the defining and dominant on a par with flight-practical readiness.

The vast majority of special studies on this problem indicate the presence of a kind of the core of psychological readiness consisting of motivational and volitional components. For example, V.A. Bodrov understood them as the so-called “subjective evaluative basic component” of the individual in the profession and noted that it “is a regulator and an indirect link in determining the nature of the dependence of performance indicators on individual psychological characteristics of the subject of labor” (*Bodrov, 2001: 286*). Besides, the emotional and volitional sphere of the individual is responsible for the sensual attitude to the activity and overcoming of various obstacles, which is very important for the professional activity of a military pilot.

Thus, the motivational and volitional components of professional readiness of future pilots of tactical aviation for combat flights can be considered as a psychological complex of the individual that maintains professional activity.

4. Criterial Apparatus of Assessment

The motivational and volitional components are considered in this work as an axiological criterion, which is an indicator of the psychological readiness of future military pilots to direct flight activities as intended.

Within its limits, the author has developed an appropriate set of indicators and levels:

1) Motivational indicator – a system of guidelines and ideas that causes the activity of the individual, determines the orientation and nature of their behavior and activities; at the same time, it not only determines the latter, including professional activity, but also permeates all areas of human mental life, which includes the following motivators and goals of a developed internal motivation:

– the tendency to professional self-actualization (the need for the fullest realization of the individual self in the profession) and self-expression (the presence of professional aspiration, ambitions, desire to make a career in the military aviation);

- involvement in the protection of one's own state and its people (national and patriotic motivator);

- affiliative (social) needs of the individual professional expression in the military professional environment (military unit);

- belonging to a socially prestigious and well-paid profession;

- flight work as a matter of life.

2) Volitional indicator (associated with the conscious regulation of behavior and activities by the individual, which is expressed in the ability to overcome internal and external difficulties in carrying out targeted actions, mainly in difficult life and professional circumstances) expressed by the following qualities:

- proactivity;

- self-consistency;

- determination;

- persistence;

- self-control.

The research provides three levels of diagnosis of these indicators:

- High – characterized by their harmonious development, which combined provides optimal psychological readiness for professional activities;

- Sufficient – diagnosed in the presence of the formedness of all components of the axiological criterion;

- Insufficient – expresses insufficient formedness and/or absence of some of these indicators, which indicates the psychological unpreparedness of the person to perform combat flights.

5. Methods of Empirical Research

Pedagogical assessment of the motivational and volitional components of professional readiness of future military pilots for combat flights was conducted as part of an empirical experiment to test the effectiveness of the introduction of the pedagogical system of provision of quality of professional training of future military tactical aviation pilots for combat flights to the educational process at Ivan Kozhedub Kharkiv National Air Force University. The level of psychological readiness (axiological criterion) was diagnosed at the beginning (2019) and at the end (2021) of the experiment.

From the total number of future military pilots of 2017 and 2018 of admission (a total of 44 people), two groups were formed: experimental (EG, 22 people) and control (CG, 22 people) ones. The first group was directly exposed to the experimental influence during the research process, and the second group did not participate in the experiment itself, but its results were compared with the results of the first group to determine the extent of the influence, validate the results and calculate the effectiveness of the introduced measures. The main characteristics of the experimental group (sampling criteria) are: age limits 18-22 years; gender – male; primary professional selection.

Determining factors in the formation of assessment methods:

1) Definition of the motivational complex of the individual as an indicator of satisfaction with the chosen profession of a military pilot:

- on the basis of the study of the correlation of satisfaction with the profession and the type of motivational complex of the individual (positive significant relationship, $r = +0.409$);

- on the basis of scientific ideas about three types of motivation – internal, external positive and external negative;

- diagnostics according to the method by K. Zamfir (in modification of A.A. Rean);

2) Determination of the content and expression of volitional qualities of future military pilots on the basis of decision-making in difficult situations (according to the method of diagnosis by N.E. Stambulova).

According to the content of the “Motivation of Professional Activity” methodology (developed by Kathleen Zamfir in modification of A.A. Rean), the EG and CG cadets were asked to assess the importance for themselves on a 5-point scale of such motivators of professional activity as 1) money earnings, 2) the desire to promotion (military career), 3) the desire to avoid criticism from the head or colleagues, 4) the desire to avoid possible punishments or troubles, 5) the need to achieve social prestige and respect from others, 6) the satisfaction with the process and the result of work, 7) the possibility of the most complete self-realization in this activity.

The results were evaluated according to the indicators of internal (IM), external positive (EPM) and external negative (ENM) motivation according to the following formulas:

- internal motivation = (score of cl. 6 + score of cl. 7) / 2;
- external positive motivation = (score of cl. 1 + score of cl. 2 + score of cl. 5) / 3;
- external negative motivation = (score of cl. 3 + score of cl. 4) / 2, where the indicator of the severity of each type of motivation is be a number that is in the range from 1 to 5.

The obtained results allow establishing the motivational complex of personality (the type of relationship between the three above types of motivation), which directly correlates with job satisfaction (positive meaningful relationship, $r = +0.409$), which is relevant for military pilots whose profession is permanently connected with high emotional and nervous tension and stress and needs significant motivational stimulation. At the same time, the more optimal the motivational complex, the more the personality is motivated by the content of the activity and the desire to achieve certain positive results in it, accordingly, the lower is the emotional instability of the individual. The optimal motivational complexes in terms of their compliance with the chosen professional activity are considered to be two types of combinations: $IM > EPM > ENM$ and $IM = EPM > ENM$.

Volitional qualities of this component of professional readiness of future military pilots of tactical aviation for combat flights were measured using the method of self-assessment of volitional qualities by N.E. Stambulova, which allows diagnosing two key parameters of volitional qualities – expressiveness (presence and stability of the main features of the quality) and generalized nature (flexibility of the quality as a manifestation of the breadth of manifestation of the quality in different situations and activities). Such potency of this technique (it was originally developed for students in sports-oriented training) is especially valuable for this research, as it allows identifying not only superficial features but also deep (basic) foundations of the volitional sphere of future military pilots during their studies at HMEI in dynamics.

Cadets from EG and CG were offered five signs of volitional qualities (purposefulness, persistence and perseverance, courage and determination, initiative and independence, self-control and endurance) expressed in twenty affirmations from each (100 affirmations in total), which they had to answer with one of the five possible answers (“totally incorrect”, “rather incorrect”, “probably so”, “rather correct”, “certainly correct”).

Taking this into account, the following “key” is used (for all qualities):

- affirmations 1, 6, 8, 9, 11, 12, 16, 17, 18, 20 reveal the expression of volitional qualities;
- affirmations 2, 3, 4, 5, 7, 10, 13, 14, 15, 19 reveal the generalization of volitional qualities.

The results were calculated in points (each affirmation is accompanied with a point scale with pints -2, -1, 0, +1, +2) by their algebraic addition (20 points were added to the final amount to transfer the result into a positive evaluation scale) separately for the parameters of expression and generalization for each indicator.

Interpretation of results by three levels (tables 1, 2):

- high level (31–40 points) – harmonious development of qualities, which together provides optimal psychological readiness for professional activities;
- sufficient (20–30 points) – the formation of all components of the volitional indicator within the axiological criterion;
- insufficient (0–19 points) – insufficient formation and/or lack of some parameters of the volitional indicator, which allows assuming the psychological unpreparedness of the person to perform combat flights.

6. Empirical Research Results

Table 1

The results of the assessment of the motivational indicator of the motivational and volitional components (according to the method by K. Zamfir) in EG and CG during the initial and final control evaluation

Groups	Indicator Formation Levels		
	high	sufficient	insufficient
initial control evaluation			
EG (22 persons)	3	11	8
CG (22 persons)	4	10	8
Total result (in %)	13.6	50	36.4
	18.1	45.5	36.4
final control assessment			
EG (22 persons)	8	12	2
CG (22 persons)	5	11	6
Total result (in %)	36.4	54.5	9.1
	22.7	50	27.3
deviation according to the results of initial (“-”) and final (“+”) control evaluations (in %)			
EG (22 persons)	+22.8	+4.5	-27.3
CG (22 persons)	+4.6	+4.5	-9.1

Table 2

The results of measuring the volitional indicator of the motivational and volitional component (according to the method by N.E. Stambulova) in EG and CG during the initial and final control evaluation

Groups	Indicator Formation Levels		
	high (31-40 points)	sufficient (20-30 points)	insufficient (0-19 points)
initial control evaluation			
EG (22 persons)	6	12	4
CG (22 persons)	7	11	4
Total result (in %)	27.3	54.5	18.2
	31.8	50	18.2
final control assessment			
EG (22 persons)	8	13	1
CG (22 persons)	7	12	3
Total result (in %)	36.4	59	4.6
	31.8	54.5	13.7
deviation according to the results of initial (“-”) and final (“+”) control evaluations (in %)			
EG (22 persons)	+9.1	+4.5	-13.6
CG (22 persons)	-	+4.5	-4.5

The calculation of the level of significance according to the Student's t-test based on the results of the initial control evaluation was 5.71, with the average sample differing slightly; according to the results of the final control evaluation – 18.10 – the average sample differs significantly.

The calculation of the level of significance according to the Student's t-test based on the results of the initial control evaluation was 4.21, with the average sample differing slightly; according to the results of the final control evaluation – 15.8 – the average sample differs significantly.

7. Conclusions

The obtained empirical data (results of qualimetric assessment) of the motivational indicator within the axiological criterion showed the following:

1) The basic level of formation of this indicator in cadets of EG and CG during the initial control evaluation was statistically equal;

2) Significant differences in the level of formation of the indicator were manifested in the cadets of EG, subjected to experimental influence, according to the results of the initial control evaluation:

- the number of cadets with a high level increased by 22.8% (in CG – by 4.6%);
- the number of cadets with a sufficient level increased by 4.5% in both EG and CG;
- the number of cadets with unsatisfactory level decreased significantly by 27.3% (in CG – by 9.1);

3) Both groups showed the dynamics of improving the level of formation of the motivational indicator, but:

- increase in EG precedes similar growth in CG by an average of 25%;
- the number of calculated optimal motivational complexes $IM > EPM > ENM$ and $IM = EPM > ENM$ among EG cadets exceeds the number among CG cadets on average by 23%, which indicates greater motivation of the former by the content of the future professional activity.

The obtained empirical data (results of qualimetric assessment) of the volitional indicator within the axiological criterion showed the following:

1) The basic level of formation of this indicator in cadets of EG and CG during the initial control evaluation was statistically equal;

2) Significant are the positions that were identified by the results of the initial control assessment:

- increase in the number of EG cadets with a high level by 9.15% (in the CG, such an increase is not recorded);
- reduction of the number of EG cadets with unsatisfactory level by 13.6% (in CG – 4.5);

3) In EG cadets, a predominance of generalized volitional qualities over their expression is observed, which is more relevant for their future professional activities, as it indicates the potential of the permanent stable volitional act in all aspects and manifestations of the latter, including combat flights.

The specified conclusions are indirectly confirmed by the opinions and impressions of the pilots-instructors of the HMEI (agreement amounted to 88.6%), which, in general, contributes to the validation of the pedagogical assessment.

Thus, the proposed method of assessment of the motivational and volitional component of professional readiness of future tactical pilots for combat flights in combination with the

author's criteria apparatus allows objectively assessing the significant psychological qualities of future military pilots as an important indicator of domestic education in the field of military aviation. In the future, it is planned to continue empirical research in this area in order to improve the technique under consideration.

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SPECIFIC FEATURES OF THE DEVELOPMENT OF MUSICAL CULTURE AND EDUCATION IN SOUTHERN UKRAINE IN THE 2ND HALF OF THE 19TH – BEGINNING OF THE 20TH CENTURY

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Summary

The article considers the development of musical and cultural life in the largest centres of Southern Ukraine in the late 19th – early 20th century: Kherson, Nikolaev and Odessa.

The author pays special attention to the specific features of the region determined by its geographical location and multi-ethnic population. In many provincial and district centres of Southern Ukraine, cultural life developed due in no small way to the involvement of musically gifted foreigners: Czech and German colonists and also the guests from the modern Czech Republic, Germany, Austria, Italy etc.

The author provides evidence that almost every department of the Imperial Russian Musical Society (IRMS) of the southern region of that historical period engaged foreign specialists. Moreover, many domestic music teachers received musical education in European conservatories (Leipzig, Warsaw, Brussels, Vienna and others). All of the aforesaid illustrates the implementation of European pedagogical and methodological principles in music education in Southern Ukraine. In many educational institutions (especially women’s institutions), foreigners made up the majority of teachers.

Having analyzed the cultural life in Southern Ukraine in the 2nd half of the 19th – early 20th century, the author concludes that the increasing demand for a diverse and comprehensive cultural life in local communities back at that time determined the development of musical courses and educational institutions (both public and private), the IRMS local branches, performing schools and groups etc. General trends in the development of music, musical pedagogy and other areas of musical activity were rooted in Western European traditions. Thus, interethnic musical contacts carried out on the territory of Southern Ukraine and its cultural and economic centre – Odessa, contributed to the formation of a unique multi-dimensional culture of this region by the end of the 19th – beginning of the 20th century.

Keywords: Kherson, Nikolaev, Odessa, Western European musicians, professional music activities.

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Problem statement

Education in Ukraine is currently undergoing significant changes, and this is due to the search for new forms and methods that facilitate the alignment of Ukraine with the global educational process. Studying the history of the ethnic culture and the specifics of the formation and development of regions of the state becomes essential in the educational process as part of the universal culture.

The specific interest for scientific research resides between the second half of the 19th – early 20th century, the times of progressive changes and shifts in the public life of Ukraine, which could not but affect the development of musical culture as well. This period in Southern Ukraine is indicative of a gradual, increasingly intense professionalization of all spheres of musical life. This process is typical for musical pedagogy, solo, chamber, choral and orchestral performance, composing, musical and theoretical activities, musical and theatrical sphere, etc. General musical education acquires the status of an integral component of the universal culture formation starting from as early as the 19th century. This idea reflects in the educational content of all educational institutions, from the complex network of primary education and secondary schools to the higher-level institutions, where music is considered an essential element in the syllabus.

The issues of the development of music education in Southern Ukraine are considered in the researches of S. Bakhmatov, L. Bashirova, A. Gotsdiner, E. Dagilaiskaia, L. Dolgikh, Ya. Katsanov, A. Kovaleva, S. Miroshnichenko, A. Petrenko, A. Poliachok, R. Rozenberg, N. Smoliaga, O. Stanko, A. Toporov, E. Fishov, V. Shchepakina and others.

The cultural history of Southern Ukraine studied K. Shamaeva, A. Zinkevich, A. Koreniuk, L. Mazepa, M. Cherepanin, T. Starukh, M. Zagaikovich, L. Kiianovskaia, Z. Iuferova, R. Miulberg, L. Kaufman, M. Slabchenko, A. Zhelan and others.

The history of Ukrainian musical pedagogy is described in the works of A. Mikhailichenko, A. Kononova, V. Lapsiuk, V. Mironov and others.

The issues of the functioning of local branches of the Imperial Russian Musical Society (IRMS) and music classes – music schools in Ukraine are described in the publications of L. Bogdanova, N. Evchenko, L. Ershova, O. Zinkevich, O. Kononova, I. Kopot, V. Kravets, N. Kuvshinova, I. Riabtseva and others.

Despite a large number of scientific publications on the history of the musical culture of Southern Ukraine, the study of the main trends in the musical life of this region in the second half of the 19th – early 20th century has not lost its relevance and requires further investigations.

The purpose of the article is to highlight the main features of the musical culture of Southern Ukraine in the 2nd half of the 19th – early 20th century.

1. Introduction

The musical culture of Southern Ukraine during the 19th – in the early 20th century reflects the specific features of the regional development manifested through the activities of Western European musicians since as early as the middle – the end of the 18th century. The large centres of that period – Kherson, Nikolaev and Odessa – were under the cultural influence of both Western European and Russian (St. Petersburg and Moscow) cities. Step by step, the forward-thinking local aristocracy, arts patrons, officials and intellectuals realized the necessity to shape professional musical and cultural life in the region.

The Odessa Herald bulletin published starting from 1827 has reflected the main processes and trends in the formation and development of the provincial (by status) southern city of the Russian Empire, the epitome of crossroads of Western and Eastern cultures. Moreover, Odessa reflected the culture of the Slavs and many other nationalities and ethnic groups that inhabited the region or resided here in the second half of the 19th century (*Maliutina, 2018: 94*).

By the second half of the 19th century, professional music activities have already been a centuries-old tradition in Western European countries, such as modern Italy, France, the Czech Republic, Austria, Germany and others. There have been established and operated successfully

various music conservatories, numerous church-run and secular private music educational institutions. European people engaged actively in concerts, guest performances, theatrical and musical activities, and almost every cultural centre has been hometown to dozens of professional and amateur music associations. Meanwhile, the only two centres in the Russian Empire that could – to a certain degree – boast a similar level of an advanced musical and cultural life were the two capitals: St.Petersburg and – to a lesser extent – Moscow. Nevertheless, ever since the reign of Catherine the Great, the key positions in different musical areas in these two cities have been occupied mainly by foreigners and Ukrainians as well (those relocated by the Russian aristocracy or those who have willingly moved to the Russian metropolis from their homeland). They had been successfully incorporating Western European musical traditions into the Russian cultural background (*Shchepakina, 2017*).

In Southern Ukraine, during the 2nd half of the 19th – early 20th century, there was formed an authentic system of music talent development. It became possible due to holding musical classes in many institutions of general education (boarding schools, gymnasiums, secondary schools, privileged boarding school for noble young ladies), activities of national and specialized art societies along with associated music schools (classes), as well as specialized music institutions (music classes), music academies, conservatories etc. Another important thing was the opening of specialized private music educational institutions (musical courses and music schools). Most of the classes were held by representatives of Western European music schools.

2. Music life in Kherson

In this historical period, Kherson was a centre of a large province populated with 70.000 people. Nevertheless, the cultural life of the city was poor. The turning point was the arrival in Kherson of the famous musician and orchestral conductor Ya. Dyumin. Under his guidance, there was opened the Kherson branch of the IRMS with associated music classes that were launched on October 16, 1905. The teaching staff was distinct at a high professional level: there were graduates from the Moscow, St.Petersburg, Prague, Leipzig, Vienna, Brussels conservatories. In 1908, the music classes were reorganized into a music school, which distinctive feature was the preceptor class and the organization of preceptorship-teaching and bandmaster summer courses that trained conductors and facilitators of orchestras and choirs in the military, schools and rural areas. They also trained the singing teachers. In Kherson, there was also a private music school named after I. Kharlamov (*Zhelan, 2016: 28-29*).

3. Music culture in Nikolaev

The musical life of Nikolaev had its own specifics, as the city was the military-strategic centre of Southern Ukraine. Harbour choirs and military brass bands have functioned there since the very founding of the city. At the end of the 19th century, various public organizations emerged. They aimed at improving the cultural level of citizens. A significant event in the musical life of Nikolaev was the arrival of M. Rimsky-Korsakov in 1874 with an intent to reform the harbour choir and the orchestra. That year the Society of Choral Singing Lovers was established, and in 1877 the Nikolaev Club of Music Lovers opened its doors. Vigorous activity of the Club members resulted in establishing the Nikolaev branch of the IRMS in 1891 and a music school with music classes in 1900. Owing to the efforts of L. Shchedrin, a talented pianist and orchestral conductor, Nikolaev symphony orchestra came into existence. Also, a significant role in the development of musical education belonged to

private music schools of D. Kozakov, D. Popov, A. Fersteter and A. Gurovich (*Yakymenko & Zhelan, 2014:122-128*).

4. Odessa as a centre of cultural life in the region

In the late 60s – early 70s of the 19th century, Odessa came to the fore in several social and cultural indicators (*Maliutina, 2018:97*) turning into an economically prosperous centre of Southern Ukraine with a vibrant social and cultural life. It became a regional centre for music publishing, the manufacture of various musical instruments and musical trade. The active cultural life of the city was associated with the activities of foreign specialists, mainly Germans and Czechs. According to documents, by the end of the 19th century, Germans were the fourth largest ethnic group in the city after Little Russians (Ukrainians), Jews and Greeks (*Maliutina, 2018: 98*). The provincial socio-cultural environment, as noted by Nikolai Nesterov, often tends to a strong interrelation of an individual and society with local ethnocultural traditions, with the natural and geographical conditions in the region (*Nesterov, 2011*). The specific geographical location of Odessa and the multi-ethnicity of its population could not but impact the general cultural level of the citizens.

In terms of the intensity of concert and touring activities, the professional level of local musicians, the quality and quantity of educational institutions teaching music, Odessa in the 2nd half of the 19th – early 20th century was ahead of almost all other cities that were part of the Russian Empire at that time. And in some aspects – such as perfect performances of chamber ensembles, the only city orchestra among all the provincial cities of the Russian Empire and, almost a hundred years of Italian opera functioning in the city – even became unrivalled.

By 1870, even though the city was considered provincial, in terms of cultural level it was widely recognized as the fourth in the Russian Empire after Moscow, St. Petersburg and Warsaw. Its special cultural significance was repeatedly highlighted in newspaper articles of that time (*Maliutina, 2018:95*). It should be emphasized that back in 1830 in Odessa there was opened the second public library in Russia and the first one in its southern region. In 1866 the third (after Moscow and St. Petersburg) music school opened its doors in Odessa (*Maliutina, 2018:97*). The establishing in 1894 and active further functioning of the first and the only City Symphony Orchestra in the Russian Empire (*Findeizen, 1908*) became an essential indicator of the approach of Odessa at the end of the 19th century to musical and cultural standards of Western Europe. A specific feature of musical culture development in the city was the functioning of Italian opera house during almost the entire 19th century. The Italian opera shaped the musical tastes and preferences of several generations of Odessa citizens, with few interruptions starting from the 1810s until the outbreak of the First World War. The hall of the first city opera house accommodated 800 spectators with a total population of Odessa of 12.500 people. That is, the entire city population could theoretically visit this temple of art in as little as fifteen days (*Shchepakina, 2017:34-35*).

Owing to a famous Ukrainian pianist and composer P. Sokalsky, the Society of Music Lovers was established in Odessa in 1864 and launched music classes thereupon. In 1888 an outstanding Russian pianist and orchestral conductor D. Klimov has been invited to the post of director of these classes. The opening of music classes and a music school under the auspices of the Society of Fine Arts has played a large part in improving the level of musical education in the city (*Dahilaiska, 1994:98*). In 1884 the recently opened Odessa branch of the IRMS launched its own music classes, which in 1897 got reorganized into a music school. Most of the school teachers were graduates of the St. Petersburg, German and Austrian conservatories.

A similar situation was in numerous Odessa gymnasiums and academies, public and private educational institutions (mostly those intended for women), the privileged boarding school for noble young ladies. Due to the lack of the required number of domestic specialists, the percentage of foreign music teachers was quite high.

In addition to the music school, music education was also provided by private educational institutions (in 1900, there became available courses held by A. Feldman, P. Stolyarsky and others). The opening of the Odessa Conservatory on September 8, 1913, has become a milestone of great importance in the musical life of Southern Ukraine (*Shchepakina, 2017: 30-31*).

An essential factor in the musical culture development was the fact that Odessa in the middle – the 2nd half of the 19th century more often than other Ukrainian cities became included in the touring route of the vast majority of outstanding Western European and Russian musicians. Starting from the end of the 19th century, performances of garden orchestras became a distinctive phenomenon of cultural leisure in Odessa almost every summer. In addition to the regular concerts of light and popular music, the citizens enjoyed symphonic performances featuring the works of musical classics, romantics, contemporary Western European, Russian and local composers.

5. Conclusions

Thus, after having analyzed the main musical and cultural processes that took place at the end of the 19th – beginning of the 20th century in Southern Ukraine, it should be noted that a distinctive feature of this region was the vigorous activity of Western European musicians, which began in the 1860s and manifested itself in the following:

- face-to-face contacts and collaboration of musicians (ensembles, orchestras, choirs etc.);
- the training system in many general educational institutions, the activities of societies with associated music schools (classes), as well as specialized and private music institutions, music schools, conservatories;
- professional musical activities: musical pedagogy, solo, ensemble, choral, orchestral, opera performances, etc.;
- activities of folk musicians (professionals and amateurs);
- specifics of concerts: amateur, charitable, spiritual, academic, orchestral, garden (summer) etc.;
- concert and musical-pedagogical repertoire (*Shchepakina, 2017:38-39*).

All of the above contributed to the fact that musicians of Southern Ukraine appreciated, adopted and creatively assimilated at the local background the advanced Western European achievements in almost every area of the musical and cultural life of that epoch. It testified to the high general cultural level of the society of this region, grown upon on the most prominent musical traditions of Western Europe.

The diversity of the ethnocultural development of Southern Ukraine and the specific features of the musical life in this region spark the profound interest of researchers and are worth further studying.

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ARTISTIC POTENTIAL IN FORMATION OF JUNIOR SCHOOLCHILDREN EMOTIONAL INTELLIGENCE

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Summary

The article highlights the urgency of the problem of forming the emotional intelligence of junior school children in the context of global trends in education in the XXI century concerning paradigmatic changes in the goals and objectives of education, shifting the focus of priority from the field of subject knowledge to socialization and personal development of students, successful self-realization in society. The emphasis is placed on the fact that the current trend of world educational practice is the evidence of overcoming the technological educational paradigm and strengthening the principles of humanistic-oriented education, recognized as a priority vector for the development of national educational policy of Ukraine. It is emphasized that the state normative documents on the reform of the Ukrainian school use the concept of “emotional intelligence” in the sense of personal, socio-emotional skills required for successful entry, adaptation and self-realization in the society. The essence and key idea of the theory of emotional intelligence are revealed, the scientific preconditions of its creation are specified. It is emphasized that the establishment of humanistic-oriented education aimed at personal development of students, in particular, formation of emotional intelligence of junior school children, requires the search for new approaches to the methodological support of this process. In particular, the unique potential of musical art as a methodological tool for the formation of emotional intelligence of junior school children in the educational process is revealed by its unique nature, functional significance and strength of influence. The main shortcomings in teaching of music in a modern school are outlined. Methodical advice on the use of the potential of musical art in the formation of emotional intelligence of junior school children is formulated.

Keywords: emotional intelligence, junior school children, educational process, musical art, methodical advice.

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1. Introduction

A characteristic trend of modern global educational practice is the strengthening of the emotional component of the educational process, as evidenced by the development and widespread implementation in the national education systems of many developed countries in Europe, America, the Middle East and Africa. Among such programs: SEL (Social-Emotional Learning); RULER (Recognizing Understanding Labelling Expressing Regulation Emotions); PATHS (Promotion Alternative Thinking Strategies); SEE (Social-Emotional Ethical Learning); Program 4 Rs (Reading, Writing, Respect, Resolution). The purpose and content of these programs is to focus the educational process on the formation of socio-emotional skills of the students needed for socialization, adaptation to dynamic and changing social life, their own mental health, further successful self-realization in society, happiness and welfare. The centre of

educational programs is not the acquisition of knowledge, skills and abilities in school subjects, which is characteristic of the knowledge-oriented model of education, but the inner world (of a student and others), emotions, attitudes, values, motives to be studied and cultivated. This approach to the organization of the educational process in many foreign countries shows a rethinking of classical educational paradigms and shifting the focus from priority in the field of subject, academic knowledge to socialization of students, cultivating their subjectivity and personal potential, ability to harmonize their inner world and relationships with the outside world. The radical re-orientation of the educational process to the acquisition of the skills necessary for students for entry and adaptation in modern society, successful self-realization in it, is the evidence of overcoming rationally oriented, technological educational paradigm and strengthening the foundations of humanistic-oriented education and technological approaches to its implementation. The pedagogical foundations of educational programs of socio-emotional content are based on the ideas of the theory of emotional intelligence of American scientists D. Goleman, D. Mayer, P. Salovey, D. Caruso.

The reformist changes of the modern Ukrainian school are in line with the latest trends in world educational practice and are associated with the preparation of a man for life in the XXI century (*Kremen, 2003*). The concept of “New Ukrainian School” with the leading principle of child-centeredness, provides for the creation of optimal conditions for development of subjective and personal potential (intellectual, emotional, volitional, motivational ones) of each student,

“The maximum approximation of education and upbringing of a particular child to its essence, abilities and life plans” (*Bibik, 2018:18*). The state normative documents of general secondary education provide for the purposeful formation of students’ emotional intelligence as a cross-cutting, socio-emotional skill, which formation is ensured by mastering each discipline.

The purpose of the article is to reveal the potential of musical art as a methodological tool in the formation of emotional intelligence of junior school children. Achieving the goal requires the solving of the following **tasks**:

- to reveal the essence of the theory of emotional intelligence;
- to characterize the content and manifestations of emotional intelligence of junior school children;
- to outline the potential of art as a means of pedagogical influence;
- to formulate methodical advice on the use of the potential of musical art in the formation of emotional intelligence of junior school children.

The logic of scientific research was ensured by adherence to the original scientific positions, as well as the use of theoretical methods of scientific knowledge: the study of scientific literature on research, analysis, synthesis, comparison, generalization.

2. Fundamentals of the theory of emotional intelligence

The study of the phenomenon of emotional intelligence was initiated in Western psychology by the scientists D. Goleman, R. Baron, D. Mayer, P. Salovey, D. Caruso in the context of the general problem of psychology of a personality and based on scientific theories: social intelligence (E. Thorndike), multiple intelligence (G. Gardner), practical intelligence (R. Stenberg); cognitive theory of emotions (R. Lazarus); concepts of “emotional thinking” (G. Mayer) and “emotional thought” (R. Lipper). Modern scientists recognize the fact of underestimation of psychological science throughout the history of its development of the emotional factor in human life, downplaying its role and importance as a cognitive ability,

regulator of thinking processes and mental activity in general, motivational factor, harmonization of internal state and more. The generally accepted scientific position, characteristic of past times, on emotions as primitive, physiological reactions of the organism and their destructive influence on the mental state of man, corresponded to the ancient European tradition, historically from ancient Greek society – increasing the role of human reason in world cognition, emotional and sensory sphere. According to the accurate comparison of I. Andreyeva (*Andreyeva, 2011:13*) the relationship of mind and emotions are presented in ancient philosophy as the relationship between a master and a slave, which ideal is the idea of complete control of the educated mind over the destructive effects of emotions.

As a result of the long-term research by domestic and foreign scientists, new data from psychological science have emerged, which have confirmed the erroneous scientific views on the negative impact of emotions on human mental activity. Radically changed scientific ideas about the nature and significance of the emotional and sensory sphere in human life, the relationship and interdependence between emotions and reason led to a number of scientific theories and concepts that prove the existence of natural relationships between emotional and cognitive processes of the human psyche. In domestic science, these are the works of L. Vygotskiy, O. Leontyev, S. Rubinshteyn, and others.

Since the end of the twentieth century the theory of emotional intelligence of American scientists has gained wide popularity and recognition all over the world (P. Selovey); emotional intelligence as a mixed model that combines cognitive abilities with personal characteristics (D. Goleman); emotional intelligence as a mixed model that combines non-cognitive abilities and personal characteristics (R. Baron). However, scientists share an understanding of the essence of this phenomenon as the ability to “identify their own emotions and the emotions of others, understand their meaning, the relationship between them and use emotional information as a basis for thinking and making decisions and actions” (*D. Mayer and others, 2000*). The urgency of the problem of emotional intelligence of the individual, confirmed by numerous studies in various scientific fields, due to the current crisis in all spheres of public life, causing general emotional situation in society, exacerbates the problem of psycho-emotional stress, stressful effects on humans, which is extremely dangerous for the mental health of everyone and society as a whole. “Bringing the mind to emotions in a collective emotional crisis” (*Goleman, 2009: 9*) – the leading idea of the theory of emotional intelligence of American scientists. The concept of emotional intelligence is also associated with successful self-realization in the society due to the ability to communicate and interact effectively with others, understanding and considering their emotional states, experiences, being able to show empathy and tolerance, adapt to certain life situations. It is such an integral ability as emotional intelligence, its EQ coefficient, according to scientists, is more important in achieving personal and professional success than the generally accepted IQ. The research has shown that human intelligence in the traditional sense, the level of education, the amount of academic and professional knowledge, do not always help to achieve the goal and expected results. After all, a man, in the words of Aristotle, is a social animal (*Guberskiy and oth., 2006: 37*). Human life, social life, is associated with a complex system of social, industrial, interpersonal relationships that require the ability to communicate, share information, thoughts, interests, ideas, feelings and more. According to scientists, the outcome of the activity depends on how the communication takes place. And without communication it is impossible to develop a person as a person, subject of activity and individuality (*Skrypchenko and oth., 2011: 404*). Thus, according to the theory of emotional intelligence, a high level of EQ plays a more important role in achieving personal goals and expected results in the personal and professional spheres, which reflects the ability to communicate in interpersonal

interaction, understand and regulate one's emotional state and the emotional state of others, choosing forms of communication that take into account the mood, motives, behaviour and intentions of others; ability to cooperate in a team, empathizing with others and preventing conflict situations, directing efforts to achieve a collective, common goal. It is these indicators and are qualitative characteristics of emotional intelligence as a personal education and a special kind of intelligence. In the context of our study, the position of the theory of emotional intelligence on the possible development of EQ at any age is important, in contrast to the IQ, which is mostly caused genetically.

3. Pedagogical bases of formation of emotional intelligence of junior schoolchildren

According to scientific research of domestic scientists, the interest in the phenomenon of emotional intelligence, the study of its essence and features of manifestation, is actively growing since the beginning of the XXI century. As a psychological phenomenon, it is studied mainly in various branches of psychological science. Although in recent years, this phenomenon has attracted increasing attention of the educational community due to the use of the concept of "emotional intelligence" in the modern normative documents on the reform of general secondary education. Pedagogical research, based on the data of psychological science on the nature, structural structure, functional significance of this personal formation, focuses on providing optimal, organizational and methodological conditions for the formation and development of emotional intelligence as a cross-cutting skill of students of different ages in the educational process and methodologically justified approaches and means of its formation and development.

Thus, according to the concept of M. Shpak (*Shpak, 2018*), emotional intelligence is an integral property of an individual, which reflects the cognitive ability to understand and manage emotions through cognitive processing of emotional information and ensures psychological well-being and successful social interaction. Exploring the psychological foundations of the development of emotional intelligence of junior school children, the researcher concluded that the psychological well-being of junior school children depends on the level of development of their emotional intelligence, in which structure the main mental formations are reflection and empathy. The researcher proposed a special program of training sessions and a program of psychological support for development of emotional intelligence of junior school children in order to successfully integrate them into the educational and social environment.

Psychological and pedagogical support for development of emotional intelligence of junior school children is offered in the study of K. Kuznetsova (*Kuznetsova, 2011*), who understands the emotional intelligence of younger students as a set of interrelated reflexive, cognitive, communicative and behavioural abilities that have an intrapersonal and interpersonal orientation and are manifested in a positive mood, empathy, identification, control and reflection, choosing a way to achieve the goal in interaction with others, the use of emotional information in communication.

The researcher T. Kotyk (*Kotyk, 2020*) identifies such indicators of the optimal level of development of emotional intelligence of junior school children as: self-identification of their own emotional state in familiar and unfamiliar situations; trying to understand the emotional state of other beloved ones; possession of reflexive abilities and ability to analyse the motives of other people's actions; independent control of one's emotional state; use of different ways to achieve the goal according to the situation; persistence in achieving the goal; use of the received information about emotions of other people in communication with them;

stable positive mood regardless of difficulties; stable internal guidelines for communication; stable empathic attitude towards others. The researcher (*Kołyk, 2020:137*) proposes to use methods that are not typical for educational process, namely: art therapy, fairy tale therapy, puppet therapy, colour therapy, music therapy, psychogymnastics, breathing practices, etc. in order to develop emotional intelligence by younger pupils, the formation of qualitative positive changes in their attitudes towards themselves and others. The leading method in this process, she considers, is dramatization, theatrical action as the most social form of art, which allows students to transform into a particular character, staying in their image for a long time, feel and convey their mood, emotions, feelings in interpersonal communication.

Thus, research on the formation and development of emotional intelligence of junior school children, determining its essential characteristics and forms of manifestation, are based on basic models of emotional intelligence, which indicators are grouped by the following characteristics: self-knowledge, self-control, ability to adapt and communicate. We join this understanding of the essence of emotional intelligence of junior school children and believe that these approaches of scientists to transfer the concept of emotional intelligence from theoretical discourse to the plane of practical educational process, deserve attention and dissemination. However, the field of practical use of pedagogical tools to influence the formation and development of emotional intelligence of junior school children, in our opinion, can be significantly expanded due to the unique potential of music, which is studied in primary school from the 1st till the 4th grades.

4. Harmonizing potential of art

Art, in particular, music, is recognized as an indispensable means of pedagogical influence as a special, sensory form of knowledge of reality, which encourages personal perception, emotional experience, empathy. Valuable in the context of our study is Vygotskyi's opinion on the creative and harmonizing essence of art, which he endues with the meaning of "social method of feeling" (*Vygotskyi, 1986*), designed to balance the emotional and rational spheres of the human psyche. Emotional and intellectual factors are equally necessary for creativity, as the feelings, like thought, drive human creativity, said the scientist (*Vygotskyi, 1986*).

Many years of experience in the system of school art education and postgraduate pedagogical education, allows us to state that, unfortunately, in the work of teachers of art disciplines informational and cognitive side of educational material like disciplines of basic sciences, in the process of mastering teaching still dominates. Cognitive activity of students at the lessons of art focuses on knowledge of historical dates, biographical data on the life and work of composers, mastering the elements of musical literacy, general art terminology, performing skills and more. The emotional and spiritual content of musical works, which constitutes their essence and uniqueness in the transmission of emotional and value experience accumulated by mankind throughout the history of its development, which is inherited and assimilated through his emotional experience, remains usually out of teacher's attention. Acquaintance and analysis of a musical work is traditionally associated with the analysis of the nature of music and means of its expression without connection with the subjective, personal feelings of children, their impressions, emotional and value attitudes to the listened musical works. Underestimation of the unique educational, cognitive, developmental, communicative, hedonistic, suggestive, etc. potential of art, limiting traditional, simplistic approaches to teaching art at school not only does not encourage and attract students to the treasury of world classical art as a source of high spirituality and deep feelings. but also greatly impoverishes their inner world, values, life

orientations and personal meanings, limiting the bright and unique, deep emotional impressions, moral and aesthetic experiences that form the basis of spirituality and vividly transmitted by works of art. After all, the information contained in the works of art is read not by the mind, but by the dynamic state of soul, co-intonation (V. Medushevskiy). Music is inherently more of an expressive art than a pictorial one. The image of a musical work allows to know and feel not only the beauty of the outside world. As an expressive art with a specific mechanism of “intonation”, which is similar to the human voice, music is able to convey the full depth and diversity of human experiences: joy and anger, pleasure and anxiety, elation and sadness and more. In this regard, B. Nemenskiy (*Nemenskiy, 1989:106*) writes: “We need a clear and well-understood answer – what are art objects at school for? What are they indispensable? These are anthropological subjects that can build relationships with the world in the unity of feelings and thoughts. Remember that a child is closer to unity of thought and feeling than pure thought. There are no other teaching aids at school so far, except for art subjects, which, as subjects, would contain this unity. No subject, not even the humanities, contains a unity of feeling and thought. Any science is a priority of logic. Science presupposes the objectivity of knowledge. Art is the unity of the objective and the subjective. Science provides knowledge with the facts and objective laws of the universe. The arts reveal how humanity experiences its connection with this world, how it relates (does not know, namely, relates) to the real events and facts of this world ”(*Nemenskiy, 1989:106*). In these thoughts of the famous teacher a common position on understanding the purpose of art in the educational process is expressed. The lack of such an understanding of a teacher, likening the art lesson to the lessons of mastering the basics of science, is the evidence of the low level of professionalism of the teacher, the inability to effectively solve educational problems by means of artistic potential. It is worth mentioning that the primary meaning of the ancient Greek word “aisthesis” means “feeling”, which indicates the purpose of aesthetic education as the education of feelings and emotions. The art of music teaches to listen, feel, empathize, understand the experiences of others. By learning to understand and care for another person’s experience through a piece of music, a child will transfer this feeling into the relationship with the outside world. The history of world musical art is a manifestation of the organic relationship between emotional and rational in human nature, expressed through the richness of different musical styles, genres, forms, which acquaintance and study are provided in the curriculum of “Music” and “Art” of a primary school.

5. Methodical advice on the use of the potential of musical art in the formation of emotional intelligence of junior school children

The concept of the “New Ukrainian School” (*Bibik, 2018*) provides for the formation of common, cross-cutting skills by younger pupils, combining a set of defined key competencies. Among them is “the ability to use emotional intelligence.” The state normative documents of general secondary education (*State Standard, etc., 2018*) define the state requirements for education of pupils, compulsory learning outcomes and competencies, in particular, at the level of primary education. Among the skills common to all key competencies are the following: critical and systematic thinking, ability to constructively manage emotions, cooperate with others. The requirements for compulsory learning outcomes are specified by educational fields, in particular, art. Analysis of the content of “Education of Art” shows that among the results of learning in art disciplines are those that directly characterize the components of emotional intelligence: self-knowledge, self-control, ability to adapt and communicate. The applicant, recorded in the State Standard of Primary Education (*State Standard, 2018*), learns about

art, analyses, interprets and evaluates it; gains experience of emotional experiences; shows emotional and value attitude to art; gets to know himself/herself through artistic and creative activities and art; interacts with others through art; regulates one's own emotional state by means of art; defends his/her own opinion and the right for self-expression; participates in collective creative projects, discusses the impressions of the perception of art and creative activity with others, respecting the choices of others; recognizes own emotions from perception of works of art; chooses works and types of artistic and creative activities in accordance with his/her mood; explains what he/she enjoys in his/her own work.

Thus, the mandatory learning outcomes of art disciplines, defined by regulations, correlate with indicators of emotional intelligence of junior school children as a cross-cutting social skill, which indicates the identity of the tasks of teaching art (music) and personal qualities united by the concept of "emotional intelligence". We formulate methodical advice for teachers on the use of the potential of music in the formation of emotional intelligence of junior school children, which compliance, in our opinion, will contribute to effective mastery of children's skills of self-knowledge, self-control, adaptability and interpersonal communication in music:

- awareness of the tasks of formation of the emotional intelligence of junior school children, knowledge of its essence, structure, features of manifestation;
- understanding of the nature of musical art, its potential, and thus – the specifics of its study as a school subject and methodological tools for the formation of components of emotional intelligence of pupils;
- knowledge and consideration of the differences between artistic cognition as a sensory-rational, in which the objective and the subjective intersect, from the scientific as a purely objective;
- each art lesson, each selected musical work according to its artistic qualities should excite students and bring them spiritual joy and emotional and aesthetic satisfaction (hedonistic potential);
- teach students to understand that every piece of music has the meaning as an expression of a certain mood and human experiences (cognitive potential);
- to achieve the realization of the influential emotional action of art at each lesson in order to surprise students, interest, bring a sense of joy from meeting music; direct the knowledge of music to its emotional well-being and singing sensation (suggestive potential);
- to use musical lessons of different genres (operas, ballets, miniature works, etc.) of children's, fairy-tale themes with the dominance of a personalized approach in the analysis of music; learn to feel the moods and experiences of fairy-tale characters, to express their own attitude to them (*cognitive, educational, developmental potential ones*);
- to involve students in various forms of collective music making (singing, music and plastic activities, making music on children's instruments), directing them to co-creation and achieving a common goal (communicative potential).

6. Conclusion

The article highlights the conceptual principles and current objectives of the New Ukrainian School, including the formation of emotional intelligence of junior school children. Modern scientific approaches in pedagogical research on understanding the essence, structure, forms of manifestation of emotional intelligence of junior schoolchildren and methodological support of the process of its formation in the educational process are analysed. The potential possibilities of musical art as a methodological tool for the formation of emotional intelligence

at music lessons of general secondary education are revealed. The provided methodical advice on effective formation of components of this social skill of junior schoolchildren takes into account the specifics of music as a form of art, its rich and irreplaceable potential: cognitive, educational, developmental, hedonistic, suggestive, communicative one, etc. Further research is needed on the choice of the most appropriate didactic and methodological arsenal (content, forms, methods, technologies), which will ensure the effective formation of emotional intelligence of junior students by means of musical art.

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AN EMPIRICAL STUDY OF THE CULTURAL AWARENESS OF HUNGARIAN STUDENTS CONCERNING THE UK AND THE USA

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Summary

This paper presents a complex study highlighting the role of cultural awareness concerning the English and American cultures among students, and making an attempt at determining to what extent these cultural elements are known among students of English and Translation Studies in Hungary. The first stage of the research was a process of finding out about previous research and then selecting British and American cultural items that might be relevant for Hungarian students. These are presented as a list in the introduction. Ten instances, where the semantic and cultural meanings are ambiguous or misleading for Hungarian language learners, have been singled out for further analysis in the second section, which also gives information about these cultural and lexical items and the possible sources for student errors. This section also offers information about a survey conducted among a group of students of English and Translation Studies, underlining the need for intercultural education in both courses. More information including students' personal insights can be found on the beliefs and perceptions of students of English about language and culture in a previous paper (Szele, 2019), and some results of a cultural survey similar to the present one in another (Szele, 2020). The third section of this paper offers a conclusion, suggesting that cultural awareness and good language skills go hand in hand, and both need more focus in language teaching in Hungary.

Keywords: British and American culture, intercultural competence, mediation, false friends

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1. Introduction

This section describes the definitions of “culture” and “cultural competence” the research was based on, and discusses the cultural items involved together with the methodology of the research.

The selection of cultural items to be used was based on the following definition of culture: it is *the context within which the language is lived and spoken by its native speakers*. This, as Kramersch says, would include „the native speakers' ways of behaving, eating, talking, dwelling, their customs, their beliefs and values” (Kramersch, 2016: 13). Neuner's definition is similar: “Culture in its widest sense can be understood as a specific way of thinking, acting and feeling about one's own actions and the actions of others. This includes conscious or underlying explanations of the world and one's own and other people's place within it. It also encompasses beliefs, faiths, ideologies and world views, which we call upon to assert reality, truths, values and ideas of good and bad”. (Neuner, 2012: 21)

Corbett asks the intriguing question whether native-speaker competence – and the underlying cultural competence – is still important. He argues that being a competent speaker involves the use of what he calls international communicative competence, and that competent

language users will naturally become ambassadors of both their mother culture and their target culture. They will understand language and behaviour, and will be able to explain it to others, they will understand and appreciate both similarities and differences between their own and cultures of the communities/countries where the target language is spoken (Corbett, 2003: 3). Byram and Risager take this further by saying that cultural competence should enable the learner to become “a mediator between cultures”, which is essential from a communicative point of view since “it is mediation which allows for effective communication” (Byram and Risager, 1999: 58). Similar ideas are stressed in descriptions and recommendations of the European Union (cf. *Common European Framework of Reference For Languages*). This also implies that good speakers know and understand differences, and are willing to admit if they do not know a term sufficiently well.

A need for intercultural competence arises naturally in the case of translation, which draws on students’ intercultural competence. Harald Olk agrees that if translation is regarded as an act of communication in which a text produced for readers in one particular context is rendered for readers in another, students need to take on the role of intercultural mediators and identify culture-specificity in the source text. When it comes to the final translation, students “have to try and explain one culture in terms of the other when seeking a communicatively satisfactory mediating position for cultural divergences” (Olk, 2009). Witte (quoted in Olalla-Soler, 2019) defines translators’ cultural competence as a translator’s ability to compare cultural phenomena of a foreign culture with one’s own culture and to then translate them into the target culture in a manner appropriate to the translation brief while maintaining communicative interaction.

The idea of the complex research to be presented here was conceived when the author of this paper, a teacher of English language, culture, and translation studies, after many years of teaching, began to realise that cultural awareness and information was much more important in language study and, especially, translation and mediation, than what most coursebooks and university materials suggest. Students themselves also tend to be unaware of the importance of cultural skills: they are not sufficiently familiar with cultural items belonging to the cultural context of the texts they work with to deal with them appropriately in tasks requiring some form of mediation.

2. Methods and process

In the first stages of the research it had to be found how cultural knowledge and competence can be measured. In the pilot research mentioned in the introduction, 70 percent of the respondents had said “a quality speaker must know TL culture and customs” and 80 percent had said “I know and understand the differences between Hungarian and TL culture and behaviour” – slightly fewer (about 70%) respondents had also said that they could also explain these differences to others. These figures and personal interviews with students conducted by the author of the present paper indicate that most students overestimate their knowledge of British and American culture, and most are inclined to say they know a phenomenon just because they heard about it or just saw it somewhere. As no similar research to start out from was found, expert advice was solicited, and on the basis of this, a simple method of to-the-point questions and answers was chosen. The best way of finding out about students’ real knowledge of culture was asking about cultural phenomena one by one – also asking students to explain them – and thoroughly analysing their answers.

The stages of the research were as follows:

1) Setting the scope and the objectives. It was decided that a questionnaire on specific cultural items would be the best tool to address students. The research had the following objectives:

- uncover deficiencies in students' intercultural competence;
- raise awareness of issues in intercultural communication;
- enhance students' competence.

2) Identifying relevant cultural items. The relevant items were selected from the prestigious *Angol–magyar kulturális szótár* [English–Hungarian Cultural Dictionary] (Bart, 1998) and *Amerikai–magyar kulturális szótár* [American–Hungarian Cultural Dictionary] (Bart, 2000) and were several times cross-checked and completed from other resources. The selection was based on two considerations: which items might be useful for students, and which are truly representative of British/American culture in some way.

3) Selecting cultural items to be included in the research. The cultural items selected from the sources mentioned above included 122 items from British, and 89 items from American culture (these are fully listed in the Appendix). The final questionnaire included 35 British and 30 American cultural items. This narrower selection was representative in a way: the selected items included cultural items in the fields of 1) dining; 2) society, politics; 3) education; 4) particular expressions typical of the country; 5) geography. Experts and natives were asked to comment on the final list, and add new items, if necessary.

The list of items selected for the research questionnaire:

British: afters; agony column; babes in the wood; bag lady; baker's dozen; bangers and mash; barrister; bedside manner; Bond Street; cafeteria; Chippendale; dandelion clock; diploma; East End / West End; finishing school; free house / tied house; Further Education College; high street bank; Kent; Kermit; lollipop man / lady; Marmite; Mills & Boon; mincemeat; nineteenth hole; Number Eleven; pillar box; Poets' Corner; poppy; sportsman; stiff upper lip; third party insurance; Tom, Dick, and Harry; Whitehall; yard.

American: ACT; affirmative action; American Bar Association; Big Three; Black Maria; brown bag; club; Danish; Dear John letter; Deep Throat; egg roll; fence mending; first floor / ground floor; first-class mail; flapjack; gumbo; homecoming; Inc (Am) = Ltd (Br); logrolling; MVP; national bank; PAC; plum; pork; rider; small town; soda; Tinseltown; Trail of Tears; wedding band.

4) Setting the research questionnaires. This was mainly a technical issue carried out in Google Forms. Two questionnaires were created, one covering British, the other American cultural items. Students were free to answer either or both. The formula for the questions was: What is "X"? The two possible answers were "I know", or "I don't know", and if a respondent marked "I know", he/she was required to explain the term briefly in a free text box. This was done to eliminate phoney "yes" answers. The questions were deliberately formulated to give no hints (e.g. What is "mincemeat"?), and included a lot of ambiguities and generalisations so as to see whether respondents see the culture-specific associations linked to the individual terms. One example could be "plum" or "pork" in the American questionnaire, which both have very specific associations in the USA, namely "plum jobs" and "pork barrel projects". In the end, 377 students were sent the questionnaire link (*132 Translation Studies, 245 English BA*).

5) Administering the questionnaire and analysing the results. The administration took place in late 2019 and the answers were collected, checked, and stored for later use. There were 21 answers for the British and 18 for the American questionnaire. The respondents were given feedback on their work and were sent a list of further interesting cultural items as a little reward.

3. Analysis of the questionnaire results

In the present paper, five British (barrister; cafeteria; Chippendale; mincemeat; sportsman) and five American (Bar Association; first-class mail; national bank; soda; wedding band) terms that are seen as well-known and typical in their target cultures are explained and discussed. All these terms are in some way tricky or ambiguous. Hungarian language learners either do not have the same concept in Hungarian culture, or may associate the word with a false friend. These problems are going to be discussed in detail in the following two sections.

3.1. British cultural items

To check the five British terms chosen are indeed used and well-known in the target countries, extensive searches were carried out on the websites of high-circulation daily papers from both the UK (*The Guardian* and *The Times*) and the USA (*The New York Times* and *New York Post*).

Table 1

Problems and search results (UK)

Term	Problem	Search results (TG+TT)
barrister	the concept is not known in Hungary, the Hungarian term “ügyvéd” (lawyer) has a different meaning / also similar to ‘barista’, (coffee specialist)	27100 + 15839
cafeteria	the word is used as a term for “perks” in Hungary (something extra given for your job) / rings similar to ‘café’ in Hungary	4170 + 720
Chippendale	the same word applies to male strippers	742 + 455
mincemeat	very similar to ‘minced meat’	1650 + 545
sportsman	very similar to Hungarian “sportoló” (athlete), a job, where the original connotations are missing	11100 + 7694

The short summary of the problems shown in Table 1 is extended in this section.

The first term, **barrister**, is a type of lawyer in the UK, Australia, and some other countries, who can give specialized legal advice and can argue a case in both higher and lower courts. A barrister seems to have a high prestige among lawyers. The hypothesis of the research was that, as this differentiation is not known in Hungary, and the Hungarian term “ügyvéd” (lawyer) has a different, much broader meaning (it means ‘lawyer’, ‘barrister’, ‘solicitor’, and ‘attorney’ – anyone, who can help people with legal affairs), many students would not exactly know the meaning of the term. In addition, the term is very similar to ‘barista’, which is absolutely different, with a meaning of ‘coffee specialist’.

The second term, **cafeteria**, is a restaurant (often in a factory, a college, or an office building) where people collect food and drink from a serving area and take it to a table themselves after paying for it. The problem lies in the fact that the word is used as a term for “perks” in Hungary (something extra given for your job), which is a meaning used primarily in America, and, in addition, it is similar to ‘café’, which is rather a fancy place for spending money, not a cheap restaurant.

The third term, **Chippendale**, refers to Thomas Chippendale (1718?–79), English cabinetmaker and furniture designer, or as an adjective means “of or in the style of Thomas

Chippendale”. The question posed – What is “Chippendale”? – is misleading to Hungarians, who associate the word with ‘male strippers’ who perform at parties. The term is perfect to put students to the test of how much they know about English–American culture, whether they know this culture-specific meaning. The newspaper title *Record-breaking Chippendale furniture fails to sell after owner replaces ivory* is easy to understand, but the humorous meaning of *Crochet and crafts at the hen party where the only Chippendale is the sofa* is easily missed by students who do not know the term well.

The fourth term, **mincemeat**, refers to a sweet, spicy mixture of small pieces of apple, dried fruit, and nuts (but not meat), often eaten at Christmas in mince pies. It is generally known as dessert, not as meat. It is important to note that there is a secondary meaning “minced meat”, but it is also clear that a good speaker of English would know that if the questionnaire asks What is “mincemeat”?, the answer is unlikely to be ‘minced meat’, firstly, because it is almost identical with the original question, secondly, as there is nothing special about minced meat in English culture. So the term was judged to be perfect for checking the cultural skills of language learners.

The fifth term, **sportsman**, refers to a man who plays sport, especially one who plays it well, and also to someone who plays sport in a way that shows respect and fairness towards the opposing player or team, so he is a ‘fair player’ (like in the newspaper title *James Scott’s stunning lack of sportsmanship infuriates victorious Celtic*). The term is very similar to Hungarian “sportoló” (athlete), a job, where the original connotations are missing, so it is easy for students to think they know the term well.

Table 2 summarises the results of the student questionnaire. “Know minus wrong” means the number of students who said “yes, I know” but then got the answer wrong.

Table 2

Summary of the questionnaire results (UK)

Term	Know minus wrong	Don’t know	Other information
barrister	16–4	5	2 students put ‘mixer’, 2 students put ‘barista’ / plus five of the answers were unclear, only referring to “some kind of lawyer”
cafeteria	19–3	2	2 students put ‘café’; one associated it with the American use only (perk); one answer was unclear
Chippendale	14–9	7	9 wrong guesses at “male strippers”
mincemeat	18–10	3	10 wrong guesses at “minced meat”
sportsman	10–6	11	6 wrong or incomplete guesses: 1 “does sport” / 1 “only watches sport” / 4 “professional athlete”

When analysing the results, the basic idea was to see whether students know the terms together with their real cultural connotations, so non-cultural, general references or erroneous ones were not accepted. In the case of **barrister**, 7 students knew the term quite well, 5 knew it was some kind of lawyer, but no more, whereas 2 students put ‘mixer’, 2 students put ‘barista’. In the case of **cafeteria**, 16 answers were correct, 2 students put ‘café’, and one associated it with the American use only (perk). In the case of **Chippendale**, only five students knew the correct answer, whereas there were 9 wrong guesses at “male strippers”. In the case of **mincemeat**, 8 students knew the answer well, and there were 10 wrong guesses at “minced

meat”, which might be regarded as correct as well, but the researcher would then miss the point of the research. In the case of **sportsman**, the number of “I know” answers was only 10, so the respondents might have felt this term was somehow tricky, and six of these were incorrect: 1 students put “does sport” / 1 put “only watches sport” / 4 put “professional athlete”. The results show that students need more education in target language cultures to be able to function well in language-related jobs.

3.2. American cultural items

The number of search results for the five US terms is summarised in Table 3. The frequent use of the terms has been validated by the results of the term searches on high-circulation daily papers from the USA (*The New York Times* and *New York Post*). Table 3 also summarises the culture-specific problems contained in the terms.

Table 3

Problems and search results (US)

Term	Problem	Search results (NYT+NYP)
Bar Association	some people would not associate the term with law, but pubs and drinking	89075 + 6705
first-class mail	sounds as if it was an exclusive and expensive service	33407 + 4220
national bank	sounds as if it was owned by the state or as if it was the FED	326066 + 9850
soda	in Hungary, the term is used for 'carbonated water' or 'fizzy mineral water'	36426 + 3323
wedding band	might be associated with a group of musicians, but dictionary entries confirm it is usually a ring	12114 + 1705

The short summary of the problems shown in Table 3 is extended in this section.

The first term, **Bar Association**, is a professional association made up of members of a particular bar, specifically, the American Bar Association (ABA), founded in 1878, which is a voluntary bar association of lawyers and law students, which is not specific to any jurisdiction in the United States. The ABA's most important stated activities are the setting of academic standards for law schools, and the formulation of model ethical codes related to the legal profession (Wikipedia: “American Bar Association”). The question – What is a “Bar Association”? – might be misleading to anyone not familiar with the American legal system.

The second term, **first-class mail**, refers to an affordable and easy postal service to send envelopes and lightweight packages. It might as well be called “ordinary mail”, so the name is misleading as it suggests an exclusive and expensive service. The related internet search yielded a lot of articles about price changes and the service itself, suggesting that a lot of people use this service and they are somehow affected by the changes reported.

The third term, **national bank**, refers to a bank operating under federal charter and supervision, basically a private banking institution that has subsidiaries in several states. In Hungary, anything called 'national' is owned by the state, this might make the term misleading for some students. It must be noted that there is a Federal Reserve System (FED) in the USA, which is seen as the national bank of the country.

The fourth term, **soda**, refers to sweet drinks consisting of soda water, flavouring, and often ice cream. In general, any kind of fizzy soft drink is a soda. In Hungary, soda is a term used for 'carbonated water' or 'fizzy mineral water' only. There is a secondary meaning denoting 'soda water' in the Merriam-Webster dictionary, (Merriam-Webster: "soda"), so this answer might be seen as correct, but then, as the cultural reference is missing, the researcher would miss the point of the research.

The fifth term, **wedding band**, is in some way similar to the fourth (soda). Although the general dictionary meaning is 'wedding ring' (Merriam-Webster: "wedding band"), many people associate the term with a band that plays music at wedding parties. Newspaper articles support both meanings: *Men Who Don't Wear Wedding Bands – and Why*, or *Not Your Ordinary Wedding Band* (speaking of music). If a respondent puts e.g. "a music band", the cultural reference is lost, so the correct answer for the questionnaire is 'wedding ring'.

Table 4 summarises the results of the student questionnaire. "Know minus wrong" means the number of students who said "yes, I know" but then got the answer wrong.

Table 4

Summary of the questionnaire results (US)

Term	Know minus wrong	Don't know	Other information
Bar Association	7	11	7 answers were perfect
first-class mail	8–7	10	wrong guesses include: priority, fast, next day, airmail; only one answer correct, albeit imprecise ("USPS postal service")
national bank	11–8	7	guesses include: federal bank, bank owned by the state; 3 answers not perfect, but OK ("commercial bank")
soda	14–3	4	3 students put "fizzy water"
wedding band	11–4	7	4 students put "musicians"

When analysing the results, the basic idea was to see whether students know the terms together with their real cultural connotations, so non-cultural, general references or erroneous ones were not accepted. In the case of **Bar Association**, 7 students knew the correct answer, and all others marked "don't know". Respondents were careful this time, and no reference to pubs was made. In the case of **first-class mail**, however, there was only one correct answer, all other respondents entered an incorrect solution or marked "don't know". 'First-class', without knowing the cultural context, proved to be truly misleading. In the case of **national bank**, the number of correct answers is only 3. All guesses were wrong, either identifying the term with 'federal bank', or 'a bank owned by the state'. The results in the cases of **soda** and **wedding band** are very similar. Three students put "fizzy water", 4 students put "musicians", so, finally, there were 11 correct answers for "soda", and 7 for "wedding band". These results show that American cultural items are even less-known for the average Hungarian student than British ones, so more education in this area is absolutely necessary.

4. Conclusion

The research described in this paper was designed to find out about the cultural knowledge of students of English and Translation Studies in Hungary concerning British and American culture. The whole process took a long time, since the right method had to be found after a pilot survey and the research material had to be selected carefully. The set of cultural items used for this research was further narrowed to fit the requirements of this paper, so altogether ten items were selected for further analysis, each of which has some kind of difficulty for Hungarians: either the written or the pronounced form, or the surface semantic reference is misleading. Being aware of the cultural context and underlying information would fix the correct meaning of the term itself in students' brains. The conclusions of the research and some further implications are discussed in this section.

The first thing to see is that students clearly need guidance in terms of factual knowledge about culture, and their cultural awareness and mediation skills need to be developed. It is alarming to see that even among "professionals", be they practising or future ones, very little is known about British and American culture (the survey done might not be representative, but the implications are, nevertheless, clear). As a result, new teaching ideas and materials focussing on intercultural differences and ways of translating these into other languages have been developed and feedback from students has been requested by the author of this paper. The experiences and results of the survey can be used later for educational purposes too, to refine the focus of the classes and find the most motivating topics. As a spin-off, the same process of identifying and defining was used during some classes to identify and explain Hungarian items to foreigners to make students see how the process can be done in both directions.

The research and the cultural items included can lead to more detailed research and open up new paths in teaching intercultural studies at Kodolányi University. A focussed analysis based on thematic categories (e.g. food, education, politics, history, language, etc.) would be very useful. Further papers can analyse the remaining results of the survey and try to draw more conclusions about students' cultural knowledge to be able to give them a better understanding of British and American culture.

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Appendix

British cultural items: advocate; affidavit; afters; agony column; ale; angry young man; arcade; The Ash Grove; attendance centre; attorney; Attorney General; Auntie Beeb; Aunt Sally; babes in the wood; bag lady; baker's dozen; bangers and mash; bar billiards; barrister; bedside manner; Bench and Bar; Bond Street; breadline; the Burke; BYOB; Cadbury; cafeteria; cereal; chancellor; Charing Cross; Chippendale; Civil List; club; consolidated fund; cornflakes / Kellogg's; council; Country Life; Dacron; dandelion clock; devil; diploma; Ealing Studios; East End / West End; Eton; fair play; father of the house; finishing school; first past the post; poppy; Fleet street; footsie; Forth Bridge; free house / tied house; Further Education College; Great Ormond street; Gretna Green; high street bank; homicide; hopscotch; hunting vs. shooting; ICU; John Doe / Jane Doe; the Joneses; Kent; Kermit; Laurel and Hardy; Law Lords; lollipop man / lady; mace + woolsack; Magistrates' Court; The Mall; Marmite; maternity pay / allowance; Mayday; Mills & Boon; mincemeat; Mr Nice Guy; muffin; mumbo jumbo; MYOB; Newgate; nineteenth hole; noname vs. label; notary public; Number Eleven; Number Ten; OAP; Official Birthday; Old Bailey; Oxo; parent-teacher association; pillar box; Poets' Corner; political; port; Premium Bond; public lending right; pudding club; ; rain check Regina vs. XY; Scotch; Secretary (of State); sportsman; Square Mile; stiff upper lip; Stork; terraced house; third party insurance; the Old Lady of Threadneedle street; timber frame; Tom, Dick, and Harry; Trivial Pursuit; U and non-U; UB40; Unilever; Vice Squad; West End; Whip; Whitehall; woolsack; yard; youth court.

American cultural items: Academy Award; ACT; administration; affirmative action; agency; agent orange; Alcatraz – The Rock; American Bar Association; Arlington; Attorney General; Band-Aid; bank holiday; Beagle Boys; bee; big stick diplomacy; Big Three; Black

Maria; Blair House; BLT; bourbon; Bronx; brown bag; Brownie point; caucus; club; cracker; Danish; Dear John letter; Deep Throat; deli; department; dinner; donkey / elephant; egg roll; Evil Empire; Fed; fence mending; filibuster; fireside chat; first floor / ground floor; first-class mail; 501; flapjack; food stamps; frank; fried bread; gerrymandering; Gibson girls; Gotham; Grand Old Party; greenbacks; gumbo; Harlem; homecoming; hot dog; hunky; impeachment; Inc (Am) = Ltd (Br); litigator; logrolling; MVP; Mothers' Day; Mrs Mop; national bank; nickel / dime; PAC; pemmican; Peoria; plum; Ponzi scheme; pork; redneck; rider; Saturday night special; shower; shrink; small town; soda; State of the Union address; subpoena; Surgeon General; Thanksgiving; Tinseltown; Trail of Tears; veep; Wall Street; WASP; wedding band; yard.

METAPHORICAL ALLUSION IN MILITARY POLITICAL DISCOURSE

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Summary

The research paper is devoted to the diachronic analysis of political metaphoric allusions based on military terms in the English language. The study determines the ways of political military discourse allusions development in the 20th and at the beginning of the 21st century. The main objective of this work is to afford deeper insights into the genuine nature of metaphoric allusions, defining their forms, types and functions. The semantic and functional issues related to metaphoric allusions in the sphere of politics are the subject of the article, which has the aim of providing their interpretations, investigating their sources and use. The methods of research: empiric research, monitoring of mass media and multimedia content, classification, content analysis, semantic analysis. War words and phrases used by politicians in public addresses prone to generate new shades of meanings through military intertextual patterns and enrich the work by association thus giving it depth by revealing an implicit nature in political discourse through allusion. Its universal character has become common knowledge and ubiquitous in all walks of life. Being a figure of speech through which some counterparts are compared on the basis of their aspects to history, culture, mythology, literature, war and religion. Metaphoric allusions fill lexical gaps, characterize and deepen the understanding of the essence of existing objects.” Using war metaphoric allusions shuffles categorization in insidious ways. As such, politicians call for obedience rather than awareness and appeal to our patriotism, not to our solidarity”. (Costanza Musu , 2020: April 8). The core ideas are often taken from common sources, like war, battle, conflict which usually refer to some sort of competition, fight, or struggle and serve as a means of intertextuality in further semantic transformation in political domain acquiring a novice emotional charge.

Keywords: metaphor, metaphoric allusion, political discourse sources of metaphorization, intertextuality, intertextual pattern, categorization.

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1. Introduction

Political lexicon, part of the vocabulary of the English language, conveys the notions related to social life and reveals social and ideological phenomena. It has been subjected to considerable changes for the last twenty years and it remains one of the unstable layers in the lexical-semantic system. This fact has aroused the interest of researchers in semantic processes taking place in this sublanguage which is often marked by the presence of tropes and terms including military ones (Billig, M. & MacMillan K. 2005: 16)(Carver, T. & Pikalo J. 2008: 320). (De Landtsheer, C.1994: 4)(Glucksberg, S. 2001:5-15) (Lakoff, G. & Johnson, M. 1980:241) (Shelestiuk, V. 2006: 161).

When studying political language, researchers tend to follow three different but related paths. The first is to concentrate principally on the mere content of political language. These studies mostly relate to *ethos*, the norms and values that are hold by the communicator or the ideological

content of the message. This type of research is commonly practiced in communications and in political science. The second is followed by researchers who try to unravel what politicians say by focusing on the structuring of arguments and their validity. These researchers focus on *logos* or the appeal to logic. This type of research has persisted in almost all branches of the study of political language. The third is somewhat less obvious, though at least equally rewarding: by focusing on the style of political language or its form, researchers try to complement studies that take only manifest content into account. They argue correctly that how politicians say things and how they verbally express their thoughts both affect the meaning the words acquire. They examine language in its concrete use and because they look for connotative meanings and emotional effects (Carver, T. & Pikalo J. 2008: 271) *This study focuses on* metaphoric allusions based on war words in political discourse. The semantic and functional issues related to metaphoric allusions in the sphere of politics are *the subject of the article*, which have the aim of providing their interpretations, investigating their sources and use.

2. The nature of Allusion in political military discourse

Allusion is an implicit reference to another work of literature or art, to a person or an event. It is often a kind of appeal to a reader to share some experience with the writer. Allusion may enrich the work by association and give it depth. They distinguish: a) a reference to events and people, b) reference to facts about the author himself, c) a metaphoric allusion, and d) an imitative allusion (Cuddon, 1999: 27). “The literary allusion” is a device for the simultaneous activation of two texts. The activation is achieved through the manipulation of a special signal: a sign (simple or complex) in a given text characterized by an additional larger “referent”. This referent is always an independent text. The simultaneous activation of the two texts thus connected results in the formation of intertextual patterns whose nature cannot be predetermined. ... The “free” nature of the intertextual patterns is the feature by which it would be possible to distinguish between the literary allusion and other closely related text-linking devices, such as parody and pastiche” (Ben-Porot, Ziva. 1976: 107-108)

Allusion is a form of intertextuality that works largely through verbal echoes between texts (Montgomery, 2000: 161). In a wider context, an allusion is a passing or casually short statement indicating some broader meaning. Allusions generate new meanings and intertextual patterns.

Many allusions are based on metaphors. “Until a century ago, a metaphor was just a mere figure of speech, but since the development of discourse analysis a metaphor has become more than merely incidental to the content of the arguments or findings. Scholars in political studies know the importance of metaphors in electoral and policy-related politics, coming across metaphors that are, knowingly or unknowingly, influencing our perception of politics” (Carver, T. & Pikalo J. 2008: 2).

Although there are different definitions and classifications of metaphors, their universal character has become common knowledge. Metaphors fill lexical gaps or characterize and deepen the understanding of the essence of existing objects. Metaphors cover various aspects of the language and appear in all its functional variants.

3. The forms and types of allusion in political military discourse

The form of political metaphoric allusions may be simple, consisting of one word, or complex, extending over a large part of the discourse. An allusion has certain important

semantic peculiarities, in that the meaning of the word (the allusion) should be regarded as a form for the new meaning. In other words, the primary meaning of the word or phrase which is assumed to be known (i.e. the allusion) serves as a vessel into which new meaning is poured. So here there is also a kind of interplay between two meanings. Complex metaphoric allusions cannot be understood independently of the context in which they occur, and gain sense only in course of the discourse development. Their core ideas are often taken from common sources, like war, battle, conflict which usually refer to some sort of competition, fight, or struggle.

Aggressive, offensive nature of military operations may be transferred by analogy to some politicians' actions, which are characterized by a rigid approach to solving problems. The following lexemes within military terminology have become bases of metaphoric allusions: *armor, battle, bomb, bullet, cannon, fight, fighter, parachute, shield, struggle, sword, target, troops, war, warfare, warrior, weapons* and others.

In this example we find a metaphoric allusion based on the idea of a game (the competitor – the target): “*The press typically makes a mayor its target in a periodic game of pin the tail on the donkey*” (Leland T. Jones, 1993: 25). The metaphoric allusion is to the classic children's game, often played at birthday parties. Children draw a large image of a donkey without a tail, and mount it on a vertical surface, such as a wall. Players take turns one at a time. The blindfolded player tries to pin the donkey tail on the end of the donkey, trying to remember where the donkey was hanging. The winner is the player who manages to place the tail closest to the correct spot on the donkey (often marked with a target).

Another example demonstrates metaphoric allusion built upon the concept of cold war: “*Some unreconstructed old Cold Warriors strap on their rusty armor and come over here on the floor and tell us, “Oh no, you can't reduce this military spending”*” (Jim Sasser, The Newsletter of Economists Allied for Arms Reduction, Fall 1992). The Cold War (1947–1991) was a state of political and military tension after World War II between powers in the Western Bloc (the United States, its NATO allies and others) and powers in the Eastern Bloc (the Soviet Union and its allies in the Warsaw Pact).

The evolution of military metaphors is worthy of note since they seem to be reserved for periods of war: WWII and the Cold War. After 1989, no explicit mention of military metaphors is yet to be found in inaugural addresses, which could either correspond to a peace period or rather a change in war (a focus on terrorism), then a change in military powers. (Rémi Digonnet, 2014: 21)

I assume unhesitatingly the leadership of this great army of our people dedicated to a disciplined attack upon our common problems (Roosevelt, 1933)

Not only against their human oppressors, but also against their ancient enemies – hunger, misery, and despair (Truman, 1949)

We sense with all our faculties that forces of good and evil are massed and armed and opposed as rarely before in history (Eisenhower, 1953)

But this peaceful revolution of hope cannot become the prey of hostile powers (Kennedy, 1961) I have believed that this injustice to our people, this waste of our resources, was our real enemy (Johnson, 1965)

As for the enemies of freedom, those who are potential adversaries (Reagan, 1981)

It is a weapon [moral courage of free men and women] that we as Americans do have (Reagan, 1981) For freedom is our best ally (Reagan, 1985)

(Rémi Digonnet, 2014 : 9).

Weapons are another common source of metaphoric allusions in political discourse. They convey the sense of strength, force, ability, particularly in case of crisis intensification.

"I just fell on my own sword" (Clinton, B.1992:15). In this example the presidential candidate was ruefully reflecting on his unsuccessful nominating speech at the 1988 Democratic convention.

The following statements refer to difficulties, problems in terms of war. *"Today is the day. This is the bullet"* (Berk, 1993:28). *"I'm not saying that public-works investment is a silver bullet, but it is helping to reduce unemployment"* (Thomas M. Downs, 1992:24).

1. Another much-used phrase "to bite the bullet" is a war metaphor traced to the times when wounded soldiers were given a lead bullet to bite on during surgery. Credit for the broader, figurative meaning usually goes to Rudyard Kipling who in "The Light That Failed" (1890) had one character tell another: *"Bite on the bullet, old man, and don't let them think you're afraid"* (Sommer, E. & Weiss, D. 2001: 660). The phrase means "to bravely accept something unpleasant". (Sommer, E. & Weiss, D. 2001: 660).

Political language can be used to exaggerate, manipulate, and mislead. Metaphoric allusions are often seen as a manipulative tool which intends to influence people's thoughts and emotions or escape from facts to abstractions, which additionally point at their emotive function. Politicians tend to express themselves more metaphorically when anxiety level increases in society. One of the functions of metaphoric allusions is to assist in the explanation of complex political arguments. They tend to be used in order to reinforce a particular perspective, to reassure an ideological position, or ridicule one's opponents.

The purpose of the following metaphoric allusion is to show the politician from the negative perspective: *"She is a loose cannon, but some might prefer her inside, firing out"* (Bill Keller, "Winnie Mandela Free", The New York Times, June 6, 1993). The allusion is to Winnie Madikizela-Mandela (born Nomzamo Winifred Zanyiwe Madikizela; 26 September 1936), a South African activist and politician who has held several government positions and headed the African National Congress Women's League.

Here is another instance of allusion which requires a good knowledge of the political and economic situation, a variety of issues of domestic and foreign policy if it is to be completely understood: *"Here are a few examples of minefields ... we will be watching our President try to walk his way through"* (A. M. Rosenthal, 1992: 20). The essence of the metaphoric allusion is that the President has to take some action that may have hidden dangers or difficulties.

The meaning that can be derived from the following metaphoric allusion is that active work was carried out round the clock at Mr. Bill Clinton's election campaign headquarters: *"... campaign organization was ... a high-octane 24-hour-a-day war room"* (Thomas L. & Friedman, 1992:11). High octane gas makes the engine of a vehicle work very well and quietly. This word used in journalism, means "exciting and full of energy". "A war room" is a room at a military headquarters where maps showing the current status of troops in battle are maintained; a room (as at a business headquarters) used for conferences and planning that is often specially equipped (as with computers, or charts). The headquarters are characterized as a war room.

The usage of the lexeme "war" in political discourse illustrates the conceptualization of politics as aggressive activities: *"This ominous turf war between the top state institutions is taking place at a time when numerous opposition groups are shuffling to gain a foothold in the run-up to general elections, due in early 2013 but likely to be held before then"* (M. Ilyas Khan, 2012: 11). "Turf war" is a colloquial term for "a bitter struggle for territory, power, control, or rights". It can also be described as contention for any resource between two or more parties, resulting in confrontation. The phrase may have originated in the American West, where cow herders and sheep herders fought over grazing turf.

As COVID-19 sweeps across the globe, many politicians and news media have adopted war metaphors to describe the challenges we are facing.

In Britain, Queen Elizabeth II delivering a rare speech on Apr.5 said “we will meet again” evoking a Second World War song. On March 9, Italian Prime Minister Giuseppe Conte also invoked the Second World War when he used Winston Churchill’s words to talk about Italy’s “darkest hour.” President Donald Trump has described himself as a “war-time president,” fighting against an invisible enemy.

In New York, as residents face the explosion of new cases and casualties, Governor Andrew Cuomo used the war metaphor extensively during a press conference:

“The soldiers in this fight are our health care professionals. It’s the doctors, it’s the nurses, it’s the people who are working in the hospitals, it’s the aids. They are the soldiers who are fighting this battle for us.”

The United Nations Secretary-General Antonio Gutiérrez embraced the comparison during his remarks at a G20 virtual summit on the COVID-19 pandemic:

“We are at war with a virus – and not winning it. ...This war needs a war-time plan to fight it.”

Journalists have also been using the metaphor. A recent headline in the *Globe and Mail* read: “We are at war with COVID-19. We need to fight it like a war.”

This is certainly not the first time leaders and policy-makers have used the war metaphor to describe a threat that does not qualify as military. Think the war on poverty, on cancer, on illegal immigration, not to mention the war on drugs or on crime.

While highly appealing as a tool of political rhetoric, the war metaphor hides several pitfalls that, in the case of the COVID-19 pandemic, are particularly dangerous. (Costanza Musu, 2020: 8)

Some metaphoric allusions contain anthroponyms and loan words as their elements: “*Blackwell’s reporting of the war, from sitzkrieg to “Schwarzkrieg”, is as upbeat as befits the military outcome*” (Perry M. Smith & Blackwell, J 1991:2). The allusion is to a period at the beginning of World War II (September 1939 – May 1940) in which both sides change positions very slowly or not at all [from German, *sitzen* to sit + *Krieg* war]. H. Norman Schwarzkopf, Jr. (1934 – 2012) was a United States Army general. While serving as Commander-in-Chief, United States Central Command, he led all coalition forces in the Persian Gulf War.

In the next example the metaphoric allusion is to a long hard fight of the Muslims for their religious beliefs: “*There are Russian fighters on the ground who are proud to announce their presence and to discuss their ideas of “holy war”*” (Tim Whewell, T.2014:18). A “holy war” refers to 1) a war waged for what is regarded as a holy purpose as the defense of faith – jihad in Islam, a religious struggle against evil in yourself or in society.

Most allusions are based on the assumption that there is a body of knowledge that is shared by the writer / speaker and the reader / listener and that therefore the reader / listener will understand the writer’s / speaker’s referent. Though the information conveyed beyond the surface form of the metaphoric allusion is not always accessible to the reader / listener. These allusions are made to things and facts which need commentary before they are understood. Decoding allusions requires some background knowledge. Allusions are based on the general level of experience of interlocutors. “Unlike most tricks, the allusion triumphs only when people know precisely how it is done” (Elizabeth D. Samet, 2012: 3). Ignorance of some facts impedes communication.

4. Conclusions

Summarizing our data, we can state the fact that politicians tend to use metaphoric allusions in their argumentation. These semantic phenomena are more than just ornaments. Metaphoric allusions as a form of indirect or figurative language serve to create the subtext, express the writer's / speaker's attitudes, irony, humour, in particular, characterize and symbolize some things.

Our further study aims to investigate the effects the metaphoric allusions have in the political discourse, their role in the form of rhetoric and propaganda, and the functions of military lexicon in the sphere of politics.

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PHRASEOLOGICAL COMBINATIONS WITH THE NUMERICAL COMPONENT: LEXICO-SEMANTIC AND TRANSLATION ASPECTS

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Summary

The aim of this article is to study the lexico-semantic peculiarities of the phraseological units with component *number*. The symbolic meanings of numbers in the phraseological units are described in this study. Different approaches for determination of the term *phraseological units* by variety of linguists are considered in the present work. The problem of studying the semantic specificity of phraseological units with different components is cleared up. Numerical phraseological units are studied in the aspect of translation problem. The article includes varieties of functions of numeric words nowadays. Correlations of the terms *number* and *word* are studied. The authors also describe peculiar features of the concept *number* in the culture. The most popular numbers in phraseological units are analyzed. The preferential use of certain numbers in different cultures in relation to the special religions is reported. The article deals with the peculiarities of translation of phraseological units with respect to the language-specific nature. Main ways of translation of phraseological units with numerical component are studied in detail.

Keywords: lexico-semantic peculiarities, number, numerical phraseological unit, translation, expressions and connotations, commonplace expressions.

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1. Introduction

Phraseological units are used for the names of physical, mental and social situations, as well as of the human conditions. Phraseological units reflect the ideology and the national culture of the people. Due to such phraseological unit characteristics as imagery and meaning unity, the speech becomes brighter, more emotional and more expressive. Phraseological units are interesting for linguistic curiosity because they are colourful and lively. At the same time, they are difficult because they have unpredictable meanings and grammar, and often have special connotations.

Phraseological units, sharing the equivalent or similar expressions and connotations, can be perceived from the literal meaning directly. There are still some other numerical phraseological units in English having the equivalent or similar connotative meaning but differing in expressive means and expressive forms. So we can find that the essential differences between English and Ukrainian numerical phraseological units are not the content expressed by them, but the expressive forms and expressive means.

The aim of this article is lexico-semantic and translational peculiarities of the phraseological units with numerical component.

2. Analysis of the basic publications and researches

The phraseological units have been studied by many scientists. There is a certain divergence of opinion as to the essential features of phraseological units as distinguished from other word-groups and the nature of phrases that can be properly termed *phraseological units*. The habitual terms *set-phrases*, *idioms*, *word-equivalents* are sometimes treated differently by different linguists. According to A. Kunin, phraseological units are stable word-groups with partially or fully transferred meanings (Kunin, 1970). R. S. Ginzburg defines them as habitually non-motivated word-groups that cannot be freely made up in speech but are reproduced as ready-made units (Savickii, 2006). J. Sedl and W. Mc. Mordie give the definition as following: "The idiom is some quantity of words which, under condition of their joint consideration, mean something absolutely another in comparison with the individual word meanings, forming an idiom" (Robo, 2013: 589). N. N. Amosova defines phraseological units as units of fixed context, i.e. phrases with a specific and stable sequence of certain lexical components and peculiar semantic relations between them (Amosova, 1963: 25).

Thus, in our research we understand phraseological unit (or idiom) as a word group with a fixed lexical composition and grammatical structure; its meaning, which is familiar to native speakers of the given language, is generally figurative and cannot be derived from the meanings of the phraseological unit's component parts. The meanings of phraseological units are the result of the given language's historical development (Saeed, 2016).

Despite the big number of researches of the phraseological units, the problem of studying the semantic specificity of phraseological units with different components is topical one (Yusifov, et al., 2021). One of the components of phraseological units is a number (Munday, 2008). Numerals are abstract indicators, expressed in figures, the number of similar subjects. Every number has its own significant meaning, its symbolism. Number plays a big role in people practical activity, in which establishes a specific cultural and historical experience of a person (Travis, 2008). Numeric words are traced in old linguistic forms; nowadays units fulfil nominative, cognitive and epigrammatic (word creating) functions (Pym, 2010). The English numerals and words of weigh and measure make the subject of this paper.

The fact that civilizations and their written language development were inevitably connected with *Number* phenomenon (Sumerian written language creation, etc.) appears to be typical. "Any word absorbing one or other sense presents itself a countless figure combination. It also arose because of the fact that some ancient alphabet *letters* were not only *sounds*, but also the *quantity* of something" (Fomina, 2013: 31). In contrast to mathematics, the concept *Number* is revealed and showed in culture by means of three interconnected forms: a) counting, i.e. some action; b) the word, verbalizing the number, i.e. the number's name (Numeral, as a rule); c) some character of the number, i.e. its sign. Dividing numbers into an independent class and providing them with features and functions are connected with abstract human thinking development: the concept of number, taken off by the thought from the image of the definite objects of the object world, became abstract conceptual essence. Number is correlated with the *word*: on the one hand, it is concerned with the desire to see the number behind the word, on the other hand- with the desire to the semantization number, i.e. to return it the role it had in mythopoetic epoch (potential sacrality, canonization) (Fomina, 2013: 32).

3. The statement of basic material of study along with full substantiation of the obtained scientific results

Archaic ideas about *number* are reflected in *phraseological* usage; moreover, they undergo transformation, development and serve as basic material for the formation of new images (Baker and Saldanha, 2019). Numerical phraseological units, i.e. idiomatic combinations with the lexical component “number” are characterized by sufficiently high representation degree in the English linguistic world picture (Bovkunova, 2021). The most popular numbers in phraseological units are ranged from 1 to 10, for example:

First-rate: In the 1600s, *first-rate* referred to a class of warships of the highest “rate,” or value. By the early 1700s, *first-rate* moved beyond the sea, and came to refer to persons of high rank. Today the phrase means “excellent; superb,” describing anything from *first-rate actors* to *first-rate shoes*.

Second nature: Many idioms with *second*, like *second fiddle*, *second best*, and *second thoughts*, rely directly on the definition of *second* meaning “next after first.” However the phrase *second nature* does not follow that strict sense. Aristotle expressed the concept that humans have a first nature of biological characteristics and a second nature of acquired behaviour; this was reiterated hundreds of years later in the Latin proverb *consuetudo est secunda natura* meaning “habit is second nature.” The phrase *second nature* has come to mean “an acquired habit in one’s character that is so deeply ingrained as to appear automatic.”

Third degree: In medical nomenclature, “third-degree burns” are the most intense on the spectrum of first-, second-, and third-degree. In criminal justice terminology, a third-degree offense is the least serious type of infraction, as in a felony “in the third degree.” Then there’s the idiomatic noun sense of *third degree* meaning “intensive questioning or rough treatment.” This sense arose in the late 1800s and may be related to a degree, or position, in the fraternal organization of Freemasonry called master mason, which is the highest of the three ranks in the order. Attaining this title requires passing a difficult interrogation test which may have influenced the idiom.

Fourth estate: This phrase arose in the early 1800s as an extension of the three estates. Depending on where you are, the three estates can refer to slightly different groups, but they generally correspond to the clergy (first estate), the nobles (second estate) and the commons (third estate). The *fourth estate* once described a general sense of a mob, but since the early 1800s, it’s come to primarily refer to the press, as an organized body outside of the other three estates. The sense of estate as in “a major political or social group” has been in English since the 1400s.

Fifth column: *Fifth column* is another way to say “enemy inside,” and it has come to mean “a group of people who act traitorously and subversively out of a secret sympathy with an enemy of their country.” First used in Spain by General Emilio Mola Vidal to describe nationalist supporters in Madrid in 1936, the fifth column was in addition to his four columns of army supporters outside of the city.

Six feet under: First appearing in the 1940s, this idiom means “dead and buried,” referring to the depth at which caskets are buried in graveyards. There are countless euphemisms for death in English, but *six feet under* is a notably concrete description. The phrase grew in usage when the television show of the same name premiered in 2001.

Seventh heaven: The phrase *seventh heaven* originates in Jewish and Muslim theologies, which posit that there are seven levels of heaven with the seventh being the highest and most exalted. The extended meaning of “a state of intense happiness” arose in the late 1700s and

appears sporadically in popular culture in films and music, such as the 1937 film *Seventh Heaven* and the popular television series of the 1990s.

Eighth wonder: The seven wonders of the ancient world were catalogued more than 2,000 years ago. However, there were only seven of them, which may leave you wondering: what is the eighth? The phrase *eighth wonder of the world* is a hyperbolic extension referring to any incredibly impressive object.

To the nines: Starting in the early 1700s *to the nines* had a life of its own which meant “to perfection,” but today this idiom is most commonly used in the verb phrase “dressed to the nines.” The origin of this particular phrase is unknown, but nine is used in many idioms to signify perfection like cloud nine and the whole nine yards.

Hang ten: In surfing jargon, to *hang ten* means to put all ten toes over the front of the surfboard with the weight of the body as far forward as possible to increase momentum. This is an extension of the term hang five, which refers to putting one foot over the edge of a surfboard. The phrase came to embody a range of colloquial extensions from joining the cool crowd to hanging out and having a good time, but none of them have achieved widespread usage (*Let Me Count the Ways*, 2022).

Most cultures consider certain numbers to be especially significant, even symbolic, what is reflected in their religions. For example, number *seven* is of particular importance in the Arabic traditions, which originate in the Middle East. Some civilizations like Sumerian and Babylonian identified seven planets and framed seven days of the week around them. Seven was also known as a “perfect” number, symbol of completeness and goodness. There are approximately twenty five references made to the number seven in the Quran, the sacred text of Muslims. These references usually concern the seven heavens, the seven periods of creation, seven groups of things, or seven individuals, such as the Seven Sleepers of Ephesus. Thus, the number *seven* is directly linked to the power of the divine and has great symbolic value as an expression of Muslim belief and the miracles of God.

From the point of view of the ancient symbolic, the numbers seven and nine have common features. *Nine* is the end-the finish point of the digital series up to its return to one. Seven can also mean the whole period or cycle. Therefore the numerals in some cases can be interchangeable. Thus, in the phraseological unit *on cloud seven (nine)* meaning *very happy* the usage of both numerals, from by way of the symbolism is quite understandable for they symbolize the maximum of the possible, the limit.

The ten commandments is the first phraseological unit with the numeral “ten” deserves attention if it is observed from the symbolic point of view. “Ten” can symbolize the spiritual achievement, love to God and the nearest and dearest as it is mentioned in the “Comparative Dictionary of the Mythological Symbolism in the Indo-European languages”, that totally corresponds to this phraseological unit. The symbolism in the phraseological units *ten to one* and *the upper ten/ten thousand (the top of the society, aristocracy)* conforms with the interpretation of the number nine, the maximally possible, the limit (*Aikenova and Narmukhametova*, 2012).

In English phraseological fund examples with *forty* are rare, and they all express a neutral value. In European mythology, the number *twelve*, or a *dozen* is very common: *twelve-headed snakes*, *twelve brothers-robbers*. The word *dozen* was borrowed in the Middle English period from Latin via French: *a baker's dozen*, *devil's dozen*, *long dozen*. According to an old English custom, merchants received bread from the bakers who feared punishment for underweight; they received thirteen loaves instead of twelve, and the thirteenth one was in the traders' income, and that is how the expression *baker's dozen* appeared. Phraseological unit *devil's dozen* was motivated by medieval superstition of Christians about the number of

witches on Sabbath. Dozen comes from the numeral *duo* – two and *dosim* – ten, which were formed by compounding at first, and then formed a simplification word for *twelve*. *Around dozen* – exactly a dozen. The symbolism of the number *twelve* is primarily associated with basic concepts and measurements of astronomy and astrology in western and eastern nations. Moreover, in Christianity the number has a meaning of *the chosen number*, which is confirmed by the presence of this amount among the apostles of Jesus Christ, sons of Iyakov, the tribes of Israel, twelve Olympian gods in Greek Pantheon, etc. (Dossymbekova, 2016: 144).

Some idioms with numeral as a component is difficult to explain in terms of the origin, as their lexical composition, firstly, is not stable, and secondly, their value is not associated with any custom, tradition or belief: for example, *talk nineteen (twenty or forty) to the dozen* – talk incessantly, without end.

Due to the language-specific nature of phraseological units, their translation can be somewhat challenging at times. Phraseological units must be recognized, understood and analyzed before appropriate translation methods can be considered. That is to say there is no word equivalence among languages since even in the same language there is no absolute synonym between words. It is impossible to perfect translation equivalence between source language word and its target language correspondent. Between the two words that are deemed to be correspondents, one always covers more ground in meaning than the other, leading to the problem of non-equivalence at word level. Baker believes that “the main problems that idiomatic and fixed expressions pose in translation relate to two main areas: the ability to recognize and interpret an idiom correctly and the difficulties in rendering various aspects of meaning that an idiom or a fixed expression conveys into the target language” (Baker, 1992: 65). One of the problems a translator faces in translating idioms is the lack of equivalence on the phraseological level. All languages have phraseological units. But it is not easy to find an equivalent in the target language that corresponds to the phraseological unit in the source text in both form and meaning. Phraseological unit may contain a culture-bound item and this poses a problem for the translator.

Faithful translating of a large number of picturesque phraseological expressions, on the other hand, can be achieved only by a thorough selection of variants having in the target language a similar to the original lexical meaning, and also their picturesqueness and expressiveness. This similarity can be based on common in the source language and in the target language componential images as well as on the structural form of them: *measure twice and cut once* – *сім раз одміряй, а раз відріж*.

4. Main ways of translation of phraseological units with numerical component

There are several main ways of translation of phraseological units with numerical component:

– **Translation by Choosing Equivalents:** This is a way of translating by which every component part of the source language phraseological unit is kept in the target language. The words also create the main images, the expressiveness and the figurative meaning. Translating by equivalents is used when the phraseological units, which originate from the same source in the both languages, are translated, for example: *the thirty pieces of silver* – *тридцять срібняків*; *the fifth column* – *п'ята колона*.

– **Translation by Choosing Genuine Idiomatic Analogies:** The phraseological units are in most cases easily given corresponding analogies in the target language. As a matter of fact the phraseological units are usually very close in their connotative meaning in English and

Ukrainian languages. These common and similar traits of the phraseological units serve a proof of their being genuine analogies, for example: *two of one kind* – *два чоботи пара* (similar by character); *two-edged sword* – *палка о двух кінцях* (controversial problem).

– **Descriptive translation of idiomatic and set expressions:** The meaning of a considerable number of the phraseological units can be conveyed through explication only i.e. in a descriptive way. Depending on the complexity of the meaning contained in the source language unit, it can be conveyed in the target language, for example: *to be a zero* – *бути нікчемною особистістю*; *far-far away kingdom* – *тридев'яте царство*.

5. Conclusions

Taking into account the discussed above phraseological combinations with the numerical component, it can be concluded that a phraseological unit is a phrase, which means something different from the meanings of the separate words that are a part of it. Usually it cannot be understood by the literal interpretation of the words that make up the expression. Used together, the words convey a meaning that is often related to the individual words in the phraseological unit. Some phraseological units have become so well worn that they are clichés and overused or commonplace expressions. In their semantics phraseological units reflect a long process of cultural development of people, recording and transferring cultural attitudes and stereotypes from generation to generation. The number has additional symbolic values in the cultural system of symbols. Numerical in phraseological units can be used in the direct and metaphorical meaning. The analysis shows that direct meaning is more frequent.

Phraseological units with numerical component represent the problem for translation. There are three main methods of translation of the phraseological unit: translation by choosing equipments; translation by choosing genuine idiomatic analogies; descriptive translation of idiomatic and set expressions. The aim of translating of the phraseological expressions is to fully convey their lexical meaning in the target language and where possible, to convey the structural peculiarities, the figurativeness, the expressiveness, and the connotative meaning of the source language phraseological units.

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FORMATIVE ASSESSMENT AS EFFECTIVE CLASSROOM PRACTICE**Olena Zelenska**

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Summary

The article examines the phenomenon of formative assessment as an innovative trend in English language teaching. The essence and the concept of formative assessment are considered in the article. The impact of formative assessment on the process of teaching and learning is highlighted. The advantages of using formative assessment approach in teaching of the cadets of the university are investigated. The article provides the basic principles and structural components of formative assessment. The paper shows the role of formative assessment in the process of improving cadets' knowledge and skills, its effect on increasing their motivation in learning. The scientific and theoretical foundations of formative assessment are presented. The development of scientific ideas on formative assessment is analyzed. The article concludes the significance of using formative assessment principles in the process of studying aiming to motivate future officers to study English. It is the important factor for their future promotion and the key that will open for them lots of opportunities in future.

Keywords: motivation, knowledge, skills, increasing, improving.

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1. Introduction

The issue of teaching foreign languages in military educational institutions is the top issue. It has become even more relevant in the context of continuous improvement of interoperability with the armed forces of the allied countries. To successfully master any skills or abilities in any area of life a person needs motivation. When learning a foreign language, motivation plays almost the crucial role. The level of progress directly depends on it. It is not enough to use proper curricula and good explanations in class. Students must be motivated.

Motivation is a set of factors in the perception of the world that guide people to achieve the goal. This is especially important when learning a foreign language as on it depends if a person wants to learn a foreign language, how much effort and energy they are going to invest in this process.

Teachers cannot simply motivate students with words. But they can make the process of learning stimulating and attractive, create an atmosphere of cooperation. Teaching should be aimed at the expectation of success, provide their students with regular information about their achievements focusing on positive self-esteem and awareness of learning process and progress. That is, the methods of teaching, informal interaction with learners, and the atmosphere in the

classroom are important factors influencing their motivation in learning a foreign language. The purpose of this research is to show that the formative assessment approach meets all these requirements.

2. The scientific foundations of formative assessment

The term formative evaluation was first used by Michael Scriven in 1967 in connection with teaching and the curriculum. Two years later, Benjamin Bloom, the American educational psychologist who fostered a common vocabulary for thinking about learning goals, replaced the term 'evaluation' with 'assessment' and suggested considering formative assessment as a tool to improve students' teaching and learning processes.

In 1971, Bloom, along with George Madaus and Thomas Hasting, wrote the book *Handbook of Formative and Summative Evaluation*, where the term formative assessment was first used in its generally accepted meaning. (Bloom *et al.* 1971)

These studies contributed to direct the attention to the classroom processes, i.e. to the fine detail of the ways in which the day to day actions of teachers put formative principles into practices focused on learning. (Harlen *et al.* 1992 Marshall and Drummond (2006) Dann (2002)

A large number of scientists have worked in this field of pedagogy and psychology, who made significant contributions to the theoretical concept of formative assessment and to practical use: Natriello, Crooks, Bangert, Drowns, Kuliks, Daugherty, Tunstall & Gipps, Torrance & Pryor, Marshall and Drummond, Dann, Sadler, Earl, Harlen and James, Black and William.

Natriello (1987) in his work covered the full range of assessment goals – certification, selection, direction and motivation. Terrance Crooks (1988) studied only formative assessment. He stressed that the most important are the skills, knowledge and learners' attitude. According to Sadler (1989) the focus of formative assessment is the gap between what every learner currently knows and what they need to know. This understanding is crucial for a student. Hattie & Jaeger (1998), Nicol & Macfarlane-Dick (2006), Sadler (1998) also consider feedback as an essence feature of assessment for learning (formative assessment) and assessment as learning.

In Dann's research (2002) he states that 'assessment is not merely an adjunct to teaching and learning but a process through which pupil involvement in assessment can feature as part of learning – that is assessment as learning' (p. 153).

Earl (2003) states that *assessment as learning* is the complicated interaction of teaching, assessment and learning; the most important in which is that learners understand their role in learning and aims they want to reach employing different cognitive events. Self-assessment is the one of key points of the process.

Sadler highlights that teachers need to bring to the feedback superior knowledge; understanding and empathy of how learners learn; knowledge of constructing tests which will reveal responses from students' knowledge of criteria and standards; evaluative skills in their abilities to make judgements about student efforts; and the ability to frame feedback statements. (Sadler 1989, pp. 80–82).

Black and William (2009) interpret formative assessment widely as all the activities undertaken by teachers and students to obtain feedback as information to modify teaching and learning process. Harlen and James (1997) formulated the basic principle of formative assessment.

In short, formative assessment has a strong research base supporting its impact on learning.

3. Formative assessment as classroom process

Thus, formative assessment is a series of specific teaching and assessment procedures done by teachers to change learning activities and improve the progress of their students. Effective assessment not only measures the progress made by learners but identifies their needs in learning process and responds to them.

Formative assessment is a process by which evidence is collected, interpreted and used. It helps to identify the actual leaning level of each student based on the results of what each student knows and can do, and to understand what each student needs to learn next. In other words, formative assessment is a process of establishing where the learners are in their learning, where they are going, what they need to do to get there.

The core of assessment lies in the sequence of two actions. The first is the perception by the learner of a gap between a desired goal and their present state (of knowledge, and/or understanding, and/or skill). The second is the action taken by the learner to close that gap in order to attain the desired goal (1983;, 1989).

To be really effective, assessment should be “formative” – i.e., identify and respond to the learning needs of the students. When teaching in classroom is featured by formative assessment approach it means making frequent, short, interactive assessments of learners understanding, adjusting teaching to meet individual student needs, and helping all the students to reach higher standards in their learning.

Teachers actively involve students in the process, helping them to develop skills that contribute to their success. Using formative assessment approach raises the level of the students and improves their ability to learn. Teachers may find out the factors behind the variation in students’ achievements and adapt their teaching to meet individual needs. Despite general globalization expanding more and more in the world, formative assessment approach is a kind of individualization in teaching and learning. Good assessment is valid, fair, transparent, reliable and feasible.

When formative assessment approach is used in class, students are involved as partners in the process and build step by step their “learning to learn” skills emphasizing the process of teaching and learning. Developing skills at peer-assessment and self-assessment students develop skills of a range of effective learning strategies. Cadets, who are eager not only to absorb information but understand new concepts of learning by developing abilities to estimate their own and their peers’ work against clear criteria, obtain valuable skills for their life.

Using formative assessment in the classroom changes the culture of teaching; students feel safe to make mistakes and that develops their self-confidence at the lessons. Teachers make the learning process more transparent when they define and notify the goals of learning, monitor student motion and sometimes, if necessary, adapt goals to better meet students’ needs. When students are partners in learning, comments are often more effective than marks where it goes about improving the progress and helping students to reach the level they need.

When teacher uses this approach, students gradually begin to trust the learning process more than before – they are not afraid to fail anymore. They understand why they need to learn, how they can see the result. When they study in order to obtain the knowledge and acquire skills, students do out-of-class tasks more willingly, find out what is not clear for them, and ask more questions. Their questions are more comprehended and indicate that they are analyzing the target material trying to master it. They are eager to do short tests to find out if they know the target language.

Self-assessment and peer-assessment encourage cadets to take responsibility for their own learning.

A very important feature that makes assessment formative is feedback. The proper feedback evaluates learners' achievements and instructs them what to do next. For student who succeeded, feedback is the evidence of good efforts. For students who are not succeeding, feedback can provide some tools to solve the problem. Feedback encourages students to take further active steps on their way to success as it not only finds weak points but explains what to do next to overcome the drawbacks and misunderstandings. It is an instructional action, not an evaluative one. It should be a shift from correction to interaction and collaboration. Truly formative feedback is always timely, goal-oriented, sensitive to individual needs of cadets and inspires students to revise and master the target language or skills.

The actions made by learners after receiving feedback are even more important than the feedback itself. Learners start not to listen to information only to absorb but comprehend it. Learners start to understand that their achievements depend only on their efforts.

Formative assessment feedback makes a positive impact on students' personality. It helps them to elaborate ability to self-esteem, to analyze their own level of knowledge and develop motivation.

4. Practice at English language lessons

It is possible to do assessment while every classroom activities or almost every. When cadets work in pairs, for example, doing speaking activities or dictating each other words, teacher can listen, collect the information and note it to make a feedback.

When asking the questions on the learned topic a teacher pays attention and makes notes who in the class take an active part and what language they use.

After teaching new grammar or vocabulary material it is possible to give a short quick test to find out the level of assimilation of learned material. When cadets doing listening activity to do true/false, teacher can see who cannot do this properly.

To check writing skills cadets are asked to write what they read or listen. It is beneficial for cadets who have good reading or listening skills but are not good in writing. All this information is collected not for grading but for identifying weak points to improve the situation.

A very good way to reach progress and improvement is peer –assessment or self-assessment. The first – year cadets finish the discussion about food and drink the language aim of which is to revise better understanding of countable and uncountable nouns and are asked to do a gap-filling exercise on using countable and uncountable nouns. Cadets can check each other's exercises and analyze the results. Doing peer-assessment students have the opportunity to revise the studied material once more.

The third-year cadets who having done reading task are asked to make up some questions for reading comprehension and ask them each other in small groups for better understanding and peer-assessment.

The second year cadets read an unfinished story, do exercises for better understanding, read and analyze the questions given in exercise to guess the end. Then they listen to the end of the story and ask each other the questions to check the understanding.

While being in the process of acquiring the target grammar and vocabulary cadets are asked to do exercises and check each other works. When checking they use all the reference material they need. Checking peer's work they get the opportunity to deepen their own knowledge in mastering the learning material.

5. Conclusions

Started using formative assessment approach at our lessons we discovered that cadets can achieve better results in their learning. Knowing about their level of skills and knowledge they are aware what they can do to change the results.

When we obtain the information about the process of teaching and studying we can realize which activities and methods are the most useful, select the proper strategies of teaching process and plan it in the best way.

When formative assessment elements are used in learning, it helps cadets to activate their current knowledge and skills and improve their abilities to learn. It increases their self-efficacy and improves metacognitive awareness of how they learn. Formative assessment changes the interaction between teachers and cadets. Frequent assessment, being done in a positive way, helps the learners to focus on progress instead of grades.

This paper shows that formative assessment approach in teaching has been investigated in a great number of papers by plenty of scientists. The use of formative assessment in practice needs further implementation and scientific research. It will undoubtedly be beneficial both for the progress of cadets and English language teaching in general.

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INNOVATION, WORK, SOCIETY

THE DEVELOPMENT OF LANGUAGE OF NATIONAL MINORITIES
IN UKRAINE: PUBLIC GOVERNANCE CHALLENGES**Volodymyr Bondar**

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Summary

The article is devoted to the research of the conceptual approaches the Ukrainian State is implementing. In the prism of legal base and its adjustment, and, a strategy program documents approved by the Government. On the issues, related to the development of an ethnic languages in the view of realization by national minorities their rights.

The novelty of the article, it envisages getting to the point by means of the discussion of various models implemented by a State in the regulation of the ethno-political sphere. Thus, the object of the study is the concepts of the public policy, with the State language policy includes. Which resulted in the development by national minorities their native language, in particular as the subject.

The aim is to consider the classic models of the ethno-policy set by the UN, and some of those variants proposed and discussed by the domestic and foreign researches. Particular attention given to the tendencies in the Ukrainian ethnic environment caused by the external factors. Due to those, the reintegration model is getting its highest and prior challenge to stand by authorities of Ukraine.

Conclusion been drawn on the relevance of Ukrainian conceptual approaches to the international. The promising areas of governance outlined, taking into the account the specifics of the state of modern Ukrainian society.

Keywords: ethnic component, language of national minorities, conceptual approach, public policy, State language policy, model of reintegration.

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1. Introduction

In the prism of the multilingual ethnic environment of Ukraine, which consists in present of approximately 60 ethnic languages, as compare with 79 languages in the late 1990s (*Panfilova, 2010*). Thus, the challenge for the State in regulation of the development of a language of national minorities stands among the highest.

In this situation, V. Kulyk positions the State language policy as one of the important components of national consolidation, “which aims to enable different groups of citizens to communicate effectively with each other, and at the same time instill respect for a language (or languages) as a marker, value and factor of nation development” (*Kulyk, 2020:121*).

In different contexts, the development of a language of national minorities has been the object of attention of such domestic scholars, as V. Andriiash, B. Azhniuk, L. Belei, D. Hrytsiak, O. Kalakura, L. Klymenko, A. Kolodii, A. Korzh, V. Kotyhorenko, T. Kovalova, V. Kulyk, O. Kuts, T. Kyiak, P. Nadolishnii, L. Nahorna, L. Nevara, S. Rymarenko, S. Savoiska, M. Stepyko, Ye. Tkachenko, O. Yalova, H. Yevsieieva, T. Yudyna, V. Zablotskyi and others.

Among foreign scientists, whose attempts to comprehend the problem of the development of national minority languages in the aspect of the implementation of the State language policy, it necessary to mention J. Besters-Dilger, L. Carlet, R. Cooper, J. Fishman, E. Haugen, W. Kymlička, D. Laitin, C. Mar-Molinero, A. Patten, H. Schiffman, T. Skutnabb-Kangas, M. Smith, B. Spolsky.

However, insufficient modern scientific works are devoted to the analysis of current trends in terms of a State regulation of the right of national minorities to develop their native languages, as well as the challenges a State is facing.

This is the relevance of this article, which aims to study conceptual approaches of the State regulation of national minorities in Ukraine, particularly in protection of their rights to develop native languages, as one of the major marks of self-identification. Accordingly, the research task is to analyze the legal base of regulation of national minorities as an object of goal setting, in the narrow sense – the development of their native languages.

The implementation of systematic and historical analysis, as well as empirical research has revealed main features of classic models of the ethno-national policy, the consequences of their implementation by the authorities in Ukraine at different periods of country transit. As the result, analysis of current trends in the legal base and program State documents has highlighted the direction of adjusting conceptual approaches to regulate a language of national minorities. The novelty of the article is that the disclosure of the subject of the research carried out though the paradigm of transformation of conceptual approaches of the State regulation and the models implemented discussion. The challenges due to the impact of external factors on an ethno-national sphere are also took into the consideration.

2. Models of ethno-policy implemented in Ukraine

In an attempt to protect itself from the effects of the Soviet past, the approaches of the Ukrainian democratic patriotic leaders immediately after the Independence clearly showed their complete departure from so-called “center – periphery” style models. A. Bereni identified this policy as the “provocative” intention by the elite, as compare with the rest republics of ex-USSR, which remained under modified “Soviet” regimes (*Bereni, 2007*). As E. Smith aptly put it, the ethnic leaders of those groups have long used the minority to subjugate to their own political interests, exploiting slogans ranging from language to economic oppression. In such cases, the “ethno-social stratification” been formed between ethnic groups, inequality of the population of the center and the periphery” (*Smith, 2006:90, 91*). The model of “Melting Pot” which means, “the free merging of different ethnic groups into a single nation” (*Hall, 1997:8*), did not work in the United States and the Soviet Union. The “Mosaic” model, according to which the perception of culture in a society where ethnic communities are static, it contradicts to the natural properties of the elements of the ethnic component. We can agree with S. Bondaruk, that the disadvantages and cause of the negative consequences of the implementation of “mosaic” or “cauldron” is a misunderstanding of the dialect of national and universal culture, and other philosophical categories (single-special-universal, specific-abstract) (*Bondaruk, 2003:116*). Thus, outdated and unjustified models of a State regulation of the ethnic environment are been

replaced by more modern classical models of the United Nation. As the UN identified in special study in 1971, the models of ethno-national policy as per racial discrimination in the political, social and cultural spheres are assimilation (integration), fusion / diffusion, segregation and pluralism.

By the author view, from the very beginning, the Ukrainian government has implemented the model of pluralism that is commonly characteristic for poly-ethnic societies. It is to remember that, aimed at uniting ethnic groups based on equality and respect, this kind of model also appeared with the opposite properties – it symbolizes the internal separation. It means, there is always a threat of intensification of natural or forced disintegration tendencies from the outside. In the other words, once national minorities matter, from the country of historical origin of those minorities. A distinctive feature of the model, which is in the United States is called the “model of multiculturalism”, is the departure from the ideal society based on a single language, common aesthetic and ideological traditions of national cultures in favor of equal co-existence of many cultures of different ethnic, social, religious and linguistic groups with their specific identities.

In general, a multicultural society provides a citizen with the opportunity to preserve his or her identity though free choice of which cultural or linguistic markers are his or her own. As the world practice told us, with Ukraine includes, an individual can identify himself simultaneously with several languages while maintaining his own culture. Therefore, such model encourages constructive dialogue between ethno-linguistic and ethno-confessional groups and within it different types of ethnic identity considered equally valuable as components of the overall national and cultural context.

As R. Korshuk points out: “The policy of multiculturalism seeks an organic combination of national identity and ethnic identities of various groups inhabiting the country” (*Korshuk, 2010:5*). A. Kolodii highlights the integrative multiculturalism that removes and reconciles the contradictions and promotes understanding. According to him, this determines the relevance for young nation-states of the proven principle “one State – one dominant social culture”, as the guideline of ethno-politics for post-communist societies, including Ukraine, which are forced to combine tasks of modern and postmodern eras (*Kolodii, 2008*). Thus, if integration aimed at ensuring equality of personal rights and freedoms of citizens, the policy of multiculturalism provides for the protection of collective rights and equality of individual and collective rights of minorities.

Assessing the role of the assimilation (integrative) model, V. Andriiash, by recognizing its positive features, suggests to implement some elements in view of the specifics of nation- and State-building. For example, to overcome separatism: methods of liberal democracy, which is based on the right of the individual to freely choose between voluntary assimilation and its avoidance (*Andriiash, 2013:5*).

It is worth to add, the assimilation model also called as the “integrative” due to the peculiarities of the integrative function of politics in poly-ethnic and multilingual societies. The integrative version of legal (constitutional) ideology involves focusing on the unconditional priority of established customs and traditions, values in the process of its justification and functioning, compliance with the status of Ukrainian as the State language, etc. Which should be concentrated in the language of law, its norms.

According to O. Kalakura, this should facilitate preserve the identity of all components of interethnic and intercultural interaction. Cultural diversity is not a factor of division, but a source of enrichment of Ukrainian society, the opportunity for Ukrainian citizens belonging to national minorities to have the same conditions as ethnic Ukrainians for self-realization in all spheres of public life (*Kalakura, 2019:270*).

As it has evidenced by the arguments during the international scientific event at the University of St. Gallen (Switzerland). That it is the soft, non-confrontational nature of international differences that makes Ukraine relatively stable. It opens promising opportunities for national integration based on a common civic identity (*Dyskusia, 2019*). The opposite effect should not have been left out of our attention – the marginalization in a society. According to the report of the Razumkov Center on the results of a sociological survey in 2020, this phenomenon comes into the effect where the long-term stay of part of the Ukrainian population took place in foreign socio-cultural, religious, ethno-political conditions, “prolonged linguistic and cultural assimilation” (*Riven, 2020:288*).

According to T. Yudina, there is also differentiated segregation – i.e. segmental assimilation, which emphasizes certain areas of society (*Yudyna, 2020:102*). In the broadest sense, the problem of discrimination and segregation based on ethnicity can be completely avoided by a State with an ethnically homogeneous population (the only such country is considered Iceland) (*Barry, 2001:78*). In the reality of Ukraine, for example, the situation in the Hungarian and Romanian-speaking communities of Transcarpathia, whose adult population did not speak the State language, using their native language in communication with each other, or Russian with other ethnic groups, the implementation of the Law on Education, proved constructive. As a result, the preconditions for further segregation tendencies not only in relation to those national minorities, but also in other ethnic groups, had neutralized.

Let us touch upon the other concepts of ethno-policy, that have been in the focus of domestic researches as per possible implementation in Ukraine. The model of the “ethno-cultural neutrality” of the American sociologist M. Walzer – when the States of the liberal political system professes neutrality in relation to the ethno-national identification of its citizens, which leads to incompatibility of the principles of individual freedom with liberal values and ethnicity. M. Walzer’s vision is, when a liberal State stands above all ethnic and national groups in the country, refusing to approve or support their way of life. It is neutral in language, history, literature (*Walzer, 1994:9*). P. Nadolishnii argues, that the idea of supporting the “ethno-cultural neutrality” by a State – this is a myth, false both historically and conceptually. He adheres to the conclusion, that it is practically impossible to implement projects of both a civil nation and a multicultural State in post-communist countries (*Nadolishnii, 1999:19*). The concept of the Canadian philosopher of Czech origin V. Kimlička called the “nation-building state” and based on the idea of “ethno-cultural justice”. According to this model, federalism has proclaimed the guarantor of the protection of the rights of national minorities in poly-ethnic States (*Smith, 1998*).

Declaring the federalism as the most democratic, according to M. Stepyko, is an essential threat to the establishment of Ukrainian national identity. The scholar emphasizes the fallacy of Crimea’s autonomy, the federal principle in Donbass: “Federalism makes sense when it is built on the implementation of democratic principles of local self-government and does not create conditions for strengthening forces that destroy the integrity of the State” (*Stepyko, 2019:261*).

Concerning federalist scenarios, O. Batanov, in the context of study the axioconceptosphere of modern unitarism, calls the idea of federalism artificially cultivated and de facto demonized in Ukraine. His suggestion: “The formation of a holistic and constitutional basis for modern Ukrainian unitarism will play an important role in the process of counteracting pro-Russian federalist and openly separatist scenarios for the development of national statehood. This emphasis is not accidental. After all, the term “unitarism” in some foreign publications is given additional meaning in the context of its comparison with the concepts of “federalism” and “federation” (*Batanov, 2021:197*).

Gradual involvement of the country in the orbit of European processes, harmonization of domestic legislation with international norms, resulted in modernized concepts in the public policy. We agree with V. Andriash, who identifies the problem of finding the optimal model of interethnic interaction relevant and connects its solution with national, cultural, linguistic, religious orientation and identity. Against the background that the ethnic structure of society is in the process of reform within “two world trends – integration and differentiation, which determine the country’s development scenarios and the specifics of ethno-political processes, highlight the need for the State regulation that would ensure harmonious development of each ethno-national community as a self-sufficient phenomenon and unique cultural phenomenon. In one case, ethno-political processes lead to the destruction of a State, and in another – on the contrary, contribute to its development, which is due, among other things, geopolitical factors” (*Andriash, 2013:12*).

3. Tendencies and challenges in public policy

In the conditions of modern political and socio-cultural development, the adoption of the Law On the Indigenous Peoples of Ukraine (*Pro korinni narody, 2021*) is one of the important measures of the Ukrainian government. We add, carrying out of the constituent international summit of the Crimean Platform. As well, approval by the Cabinet of Ministers of Ukraine of the draft program document – the strategy for the development of the Crimean Tatar language entitled “The Concept of Development of the Crimean Tatar language for the period up to 2032” (*Kontseptsia, 2021*), and the National Strategy for Human Rights (*Pro Natsionalnu stratehiiu, 2021*).

The Paragraph 12 of the National Strategy for Human Rights envisages, with the aim of bringing the rights of indigenous peoples and national minorities into the line with international, including European, human rights standards, as well as the conditions for the development of the ethnic, cultural, linguistic and religious identity of all indigenous peoples and natural minorities, intercultural dialogue.

To proceed our discussion, we notice the adoption of another document – “The National Strategy for Civil Society Development in Ukraine for 2021 – 2026” (*Pro Natsionalnu stratehiiu spriyannia, 2021*). As a basic concept, on which the activities of the State should develop. It defines, that “no decisions without civil society” and cooperation of public authorities, local governments and civil society institutions at all stages. One of the major principles of this program document – equal opportunities, provides for the realization of civil rights regardless of, including language characteristics. Thus, we could suggest a positive trend of development of the approaches directed to the consolidation of Ukrainian society, by integrating the ethnic component within entire society.

I. Kresina has her own, an interesting vision of the integration way: “The Ukrainian society needs consolidation around a certain positively colored national idea and it should be the reintegration of Ukraine” (*Kresina, 2016:66*). By specifying, she notes, the need to “develop a comprehensive policy of reintegration of the temporarily occupied territories by” developing recommendations and legislative initiatives to improve the legal framework of reintegration policy as part of ethno-national policy” (*Kresina, 2016:63 – 64*).

On the said opinion stands V. Yavir: “Reintegration of Ukraine is to be considered in the context of the ethno-national policy of Ukraine” (*Yavir, 2018:8*). By evaluating the implementation of the integration model, V. Yavir argues, that the unique form of the integration not developed yet, which could take an advantage for Ukraine. Therefore, the ethno-national

policy of Ukraine needs a significant review and amendment, taking into an account the realities of the ethno-political conflict (Yavir, 2017). We could agree to the point shared by both researches above. By author's suggestion, it is necessary to socialize the content of the concept approach of "reintegration". Which currently is being introducing into the political discourse with an emphasis to the territories, areas or regions.

To confirm it, we found in the Webster's New World Law online-dictionary: "The definition of community reintegration refers to the process of transitioning from a state in which an individual was not a functioning member of society into a state where the individual controls and directs their own life" (*Community reintegration*). Thus, the social meaning is featured by the need for individuals (in the reality of Ukraine – the internal displaced persons). Those, who having been in new social, cultural, linguistic environment, require means to overcome obstacles, adaptation and restoration of the situation in society.

By V. Yavir's point, the reintegration designed to eliminate those obstacles, ensuring such persons with mechanisms, ways, models of integration and participation is a society (Yavir, 2017). Modern reintegration mechanisms of a State regulation include legal acts.

First, we suggest, the Law On the Special Order of Local Self-Government in Certain Regions of Donetsk and Luhansk Regions (*Pro osoblyvyi poriadok*, 2014). The law, which formulates a special linguistic policy for non-controlled territories by Ukrainian legal authorities. In the Art. 4, the right to self-determine for each resident in certain areas of Donetsk and Luhansk regions, is guaranteed. Regarding the language, he or she considers being native, choosing a language of communication, free use of Russian and any other language in public and private life. Studying and supporting Russian and any other language, their free development and equality with a meaningful reinforcement of the idea of reintegration.

We proceed with the State regulation of the development of the language of the Crimean Tatar people. As it considered above during the discussion of the Law on the Indigenous Peoples of Ukraine and The Concept of Development of the Crimean Tatar language for the period up to 2032.

From the side of interaction and participation in a society, B. Tsilevych explains, this is always a two-way process, which provides for the adaptation of the participants of the ethno-political process to each other, establishing a dialogue and the search for compromises on the background of providing basic values and the preservation of diversity (*Tsilevych*, 2016). The scientists used such terms, as "society – recipient", "ethno-community ("national minority" or "indigenous people" – author) – Donor", interacting in the process of reintegration.

Obviously, in the process of reintegration, a significant role belongs to information and its exchange, communicative interaction of all interested actors. Therefore, on the author's view, the Crimean Platform (*Zelenskyi zaprosuie*, 2021) is the example of effective social communicative mechanism. Which involves into the Crimean issues a wide range of participants in different levels, all around the world.

4. Conclusion

Summing up the above, assessing the concepts, which formulate the public policy of regulation of the development of a language of national minorities in Ukraine, we may suggest as follows. Mainly, it could considered as a large extent of relevance to fundamental international approaches.

By reflection the principles on which the State policy of Ukraine based, we notice:

- Formation of a legal democratic State;
- Priority of the law and rule of law;
- Harmonious relevance between the international and domestic legal norms in protection and guarantying the rights for national minorities;

- Ensuring the equity of ethnic component;
- Preservation of national sovereignty and territorial integrity;
- Poly-ethnic and poly-cultural pluralism;
- The availability of basis for harmonious development within the State of the ethnic components alongside with the title nation.

In order to prevent conflicts, discrimination as towards fulfilling by national minorities their rights to develop languages or other major marks of self-identification, the State has effectively resolve tasks as follows:

- Strengthening the base to ensure co-operation between the authorities of all levels and civil society institution presented by ethnic component, within the programs of public-private partnership;
- Modernization of conceptual approaches alongside with classic models of ethno-policy will provide more impact once the integration model will get certain priority;
- Involving the representatives of national minorities to full extent to the process of formulation or enhancement of public spheres, which are sensitive for the ethnic component, such as language policy, participation in decision making and its implementation, under the leading role of the State government;
- Persuading the reintegration direction of ethno-policy by introducing the State mechanisms to incorporate the internal displaced persons into aspects of social life, vital for the ethnic component.

In the meantime, the additional study required, relating to issues as per the State regulation of the development of a language of those national minorities, which affected too much due to the external factors. In the context, to assure national minorities or indigenous peoples, the right to develop native languages within the territory of their new settlement.

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PROBLEMS OF ENSURING HUMAN RIGHTS TO PUBLIC SERVICES FOR THE RESIDENTS OF THE UNITED TERRITORIAL COMMUNITIES OF UKRAINE

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Summary

Modern Ukraine is characterized by a period of fundamental changes in state-building and law-making. Since 2014 the ongoing constitutional reform is aimed at optimal organization of local self-government. By searching the ways to decentralize, Ukraine aims to ensure the proper functioning of basic municipal institutions. The united territorial community (UTC) is the primary element of local democracy and therefore plays an important role in addressing issues related to the daily needs of community members.

The local level authorities provide ineffective governance and they do not provide the scope of public services that residents need, especially in rural areas. The existence of an underdeveloped health care system in Ukraine has led to low quality and inaccessibility of medical care to the population, especially in rural areas.

The beginning of the rural healthcare reform was laid by the adoption of the Law of Ukraine, “On increasing the availability and quality of medical care in rural areas.” The system for high-quality and affordable healthcare to rural residents can be created by: 1) optimizing delivery; 2) training; 3) access to specialized facilities; 4) telehealth; 5) creating appropriate infrastructure; 6) working conditions and living standards for healthcare professionals; 7) preventive measures for public health; 8) ensuring interaction between central and local executive authorities.

UTCs must utilize the powers granted to them by law to create a client-oriented system of public administration while protecting citizens’ constitutional rights – particularly their rights to health protection and healthcare.

Keywords: decentralization, governance, healthcare system, healthcare reform, constitutional rights, law.

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1. Introduction

The process of modernizing local public authorities generated many expectations. Citizens expected, for instance, that the united territorial communities would provide public services to the residents effectively.

Most developed countries adhere to a client-oriented system of public administration, which is aimed at providing residents with all the necessary public services while respecting constitutionally guaranteed rights and freedoms, both human and civil.

In Ukraine, the existing system of local self-government cannot satisfy even the basic needs of society. The local self-government bodies perform assigned functions ineffectively or do not perform them at all. As a result, living conditions do not facilitate the development or

fulfillment of human potential; on the contrary, these conditions make them look for the best places to live (*Kavunets A.V., 2016*).

The local level authorities provide ineffective governance and they do not provide the scope of public services that residents need, especially in rural areas. To eliminate these problems the state began reforming decentralized authorities, consolidating territorial communities, and revising state policies regarding the financing of territorial communities.

The research aimed to identify the problems of ensuring the human right to public services and to demonstrate how to solve them on the example of the right to health care. The research objectives were: to characterize the role of decentralization reform in modernizing local public authorities, to identify the public service problems in Ukraine, to develop strategies on improving public services, including the right to health care. The research was conducted using a wide range of general theoretical and special scientific methods of cognition, including systems thinking, system-structural, and structural-functional research methods.

The scientific novelty of the obtained results is to propose the author's definition of the capacity of a united territorial community. It implies the ability of the united territorial community to realize at its own expense and by involving other public authorities the appropriate level of public services on its territory. The author also developed the Law-in-draft of Ukraine "On Improving the Availability and Quality of Rural Health Care", which was later approved by the Verkhovna Rada of Ukraine (Ukrainian Parliament) and signed by the President of Ukraine. This law-in-draft lays down the legal framework for creating equal opportunities for local communities to access the support provided by national, regional, and local rural health development programs.

2. The role of the decentralization reform

The voluntary unification of territorial communities is a relatively new process for Ukraine. Citizens are, on the whole, distrustful of this process. As a result, the sense of community and the level of commitment among community members in Ukraine are at the stage of their formation. Meanwhile, in Ukraine, various state, public, and international programs are being introduced. These programs have two effects: first, they stimulate the development of rural areas and local public authorities, and second, they increase ordinary citizens' confidence in both the voluntary unification of territorial communities and the decentralization reform.

The decentralization reform aims to provide a new and improved standard of living in administrative-territorial units, especially in rural areas, which have been at a disadvantage compared to big cities. The success and effectiveness of the decentralization process largely depend on the implementation strategy (*Gaidar M.Ie., 2019*).

It should be noted that in recent years cities have been developing rapidly in Ukraine while the population in villages is decreasing.

In Ukrainian villages, where several hundred residents typically live, the local budget is often insufficient to create the infrastructure necessary for ensuring an adequate standard of living.

The prosperity of the territories largely depends on their financial condition, which can be strengthened by ongoing support from the state. This can only be achieved through budgetary decentralization at the state level, regulation of authorities' budgetary management, and the use of financial resources.

The financial viability of a territorial community opens up many prospects for the implementation and production of various social, economic, and cultural projects, which in

turn ensures the rights of those who reside in that community. The self-sufficiency of the united territorial communities (UTC; 'ОТГ' in Ukrainian) will increase employment levels and prevent emigration and urbanization. Financial solvency is the key to the sustainable development of society and to ensuring (not merely proclaiming) the rights of individual citizens.

3. Problems of public service in Ukraine

One of the most problematic areas of public service has always been – and continues to be – in the health sector. The right to medical care and health protection has been repeatedly declared and affirmed at the international level (see the International Covenant on Economic, Social and Cultural Rights; the UN Convention on the Rights of the Child; and the European Social Charter) and in national legislation (see the Constitution of Ukraine; the Civil Code of Ukraine; and Fundamentals of Legislation on Health Protection).

At the doctrinal level, policymakers and lawmakers continually question what exactly “the right to health protection and healthcare” entails. After analyzing the approaches of domestic scientists (*Kameneva Z.V., 2004*), (*Vitkova V.S., 2017*), we can conclude that the right to healthcare means that everyone has access to receiving timely care from a medical institution or a medical organization to maintain and/or improve their health.

There are problems with access to healthcare in Ukraine. On the one hand, the existing network of medical institutions is quite extensive and developed. But on the other hand, the infrastructure of the modern healthcare system is not a compact one. This causes certain inconveniences, especially given the outdated material and technical basis of hospitals. As a result, it is sometimes impossible for healthcare providers to offer a comprehensive examination and/or treatment. For a long time, the health care system in Ukraine was based on the Semashko model and required strict management and financing procedures. This model is based on the principle of free medical care for the population. In line with this principle, the medical system is state-owned. Unfortunately, many of these hospitals have fragmented management structures and focus mostly on treating acute cases rather than on prevention. The specified system was not intended to address the current problems that many Ukrainians face and was incapable of the modernization required to meet the challenges of our time. This system was formed in a different era, in the absence of modern telecommunications and many important treatment methods and technological innovations. Some significant drawbacks of the existing healthcare system include its rejection of modern developments in patient care, its unwillingness to participate in international collaboration, and its blocking of private sector initiatives (*Finalna redaktsiia Natsionalnoi stratehii reformuvannia systemy okhorony zdorovia v Ukraini, 2015*).

Remnants from the days of the Soviet Union are motivating the push for healthcare that is free of charge for Ukrainians. Nowadays it is typical for the United Kingdom to finance from the state budget the vast majority of medical services while maintaining the high quality of such services. The most democratic countries choose the health insurance model. With Ukraine's transition from a planned to a market economy, free medical care is in decline and the quality of medical services provided free of charge is unsatisfactory.

Some of the post-Soviet states, like Poland, Lithuania, and Georgia, were able to improve healthcare access during the decentralization reform. For example, in our research, we found that Georgia demonstrated fruitful cooperation between the public and private sectors to improve the quality and access to medical services and introduce an effective health insurance system.

Georgia introduced compulsory health insurance, offering state-funded insurance for socially vulnerable and/or low-income citizens. At the same time, Georgia maintains a record of those who are provided with free medical care. This allows for more effective control over the funds allocated to assist citizens with low income.

The ineffective use of even the insignificant amount of funds allocated to the Ukrainian healthcare sector indicates a poor-quality management process. Sometimes, if a service is not provided at all either by legislation or by the price list of the medical institution itself, medical workers provide them exclusively for an additional fee. The number of such fees may make treatment cost-prohibitive, especially in rural and/or low-income areas (*Interfax-Ukraine, 2015*).

Because of these problems with treatment costs and lack of modernization, the Ukrainian healthcare system is in need of reform. Importantly, the reform of the medical sector is connected to the reform of the decentralization of authorities and the process of uniting the territorial communities. Citizens have more faith that the united territorial communities will provide community residents with medical services at the proper level.

4. Strategies to improve public services

It should be noted that legislation on rural healthcare is intended to resolve the issue of equal access to medical care for all people, including those who live in the village, since the conditions in the village are different from conditions in other parts of Ukraine. Reforming rural healthcare access and practices requires additional considerations on organizational efforts. At the same time, the united territorial communities should receive the obligation for the direct implementation of the new legislation in this area because UTCs are more financially sound than villages and settlement councils.

The beginning of the rural healthcare reform was laid by the adoption of the Law of Ukraine, “On increasing the availability and quality of medical care in rural areas.” This law regulates relations in the provision of affordable and high-quality services and regulates healthcare in rural areas.

Under the provisions of this law, the main directions of healthcare development in rural areas are: the maximum approximation of medical care to the population; the creation of conditions for annual visits to rural areas by medical specialists; and the introduction of modern technologies for medical care in rural areas, including the use of means of telehealth when the distance is a critical factor for the provision of care. Using telehealth requires the use of telemetry for home teleconsulting and other portable diagnostic aids. The law also prescribes the development of transportation infrastructure for providing medical care in rural areas, including creating and improving the conditions for air and water transport and acquiring special ambulances that are outfitted with resuscitation equipment. Finally, the law establishes a system of communal institutions for providing healthcare in rural areas, including centers of primary medical (and sanitary) care. These may include physician assistant (PA)-obstetric/PA posts, outpatient clinics, medical aid stations, medical offices, mobile medical offices, and pharmacy points (*Zakon Ukrainy № 2206–VIII, 2017*).

Many of the local self-government’s healthcare-related powers are defined in the Law of Ukraine, “On Local Self-Government in Ukraine.”

In 2017, the first stage of healthcare reform was launched in Ukraine. During this stage, policymakers changed the principles of financing in primary healthcare. It introduced the funding model, which preserved local governments’ powers and created opportunities for their full implementation.

5. Conclusions

New economic relations should not consist in preserving free healthcare of low quality. Instead, state and local government should provide assistance with, first, creating the infrastructure for medical institutions with modern equipment and, second, attracting qualified doctors and healthcare professionals who can deliver high-quality and affordable medical services to the average person. At the same time, medical services should be targeted at maintaining, strengthening, treating, and restoring physical or mental health.

Nowadays access to healthcare in Ukraine is a problem for certain localities, especially for Ukrainian villages with a small number of residents.

Healthcare reform in rural areas is socially significant; in fact, it is the most anticipated of all reforms currently being carried out. High-quality healthcare will ensure a high standard of living; therefore, attention should be directed to the person in need of these services. A person, with their rights, should be identified as a priority. The new health care system in Ukraine should be built on these values.

Healthcare reforms in this context require high-quality management, significant financial resources, and a lot of time. However, within the framework of reforming the healthcare system, lawmakers and healthcare practitioners can create a system for continuous provision of high-quality and affordable medical care to rural residents by taking the following steps:

1. Optimizing the system of medical care delivery to residents of rural areas.
2. Providing professional training for family physicians, to help them deliver medical care to rural areas residents.
3. Ensuring the rural population's access to specialized medical facilities.
4. Developing telehealth further.
5. Creating appropriate infrastructure in rural areas.
6. Observing healthcare professionals' rights to healthy and safe working conditions and living standards.
7. Increasing the effectiveness of preventive measures for maintaining public health.
8. Ensuring interaction between central and local executive authorities in the implementation of state policy in the field of rural medical care.

The implementation of the above steps will be made possible by close interaction between the state and the united territorial communities. To secure access to medical services for both rural and urban residents, the state should coordinate and control measures of access provision. At the same time, the united territorial communities must make rational use of state-provided funds from state and local budgets to create medical infrastructure and to encourage doctors and healthcare professionals to work in rural areas. Finally, UTCs must utilize the powers granted to them by law to create a client-oriented system of public administration while protecting citizens' constitutional rights – particularly their rights to health protection and healthcare.

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STATE REGISTRATION OF RELIGIOUS ORGANIZATIONS IN UKRAINE

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Summary

The article considers the issue of the creation and registration of religious organizations and the acquisition of the status of a legal entity. The main problems faced by religious organizations in the process of state recognition are considered. The methods of state registration of religious organizations depending on their type are described, the powers of regional and central executive bodies regarding the legal recognition of religious organizations are outlined. Proposals have been made to amend the current legislation to create a transparent process for registering religious organizations. The article defines religious organizations in Ukraine such as religious communities, centers, administrations, monasteries, church unions, missions, theological educational institutions, organizations, and associations. As the registration procedure of religious organizations has two stages of registration in Ukraine, the article describes in detail each of the stages of state registration of religious organizations. The article describes the state benefits that religious organizations in Ukraine can receive after obtaining the status of a legal entity.

Keywords: religious freedom, registration, religious organizations, regional policy, state–religion relationships.

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1. Introduction

One of the components of the mechanism for implementing a state policy in the field of socio-religious relations is the state registration of religious organizations. Registration of religious organizations is aimed at ensuring the right of a person to freedoms of Thought and religion, which is reflected in the norms of international law and enshrined in the Constitution of Ukraine. Religious organizations in the form of religious communities, centers, administrations, monasteries, church unions, missions, theological educational institutions, organizations and associations (hereinafter – religious organizations). These entities are subjects of the right to freedom of religion and may apply to relevant state authorities for the acquisition of legal rights through registration.

Religious organizations apply to the state for their legal recognition as collective entities, which are equal before the law and need a unified approach to their recognition. However, the lack of a clear structure of public administration in the field of socio-religious relations,

common approaches and standards to statutory documents, different approaches to the provision of administrative services at the regional level, gaps in laws negatively affect the trust of religious communities in public bodies. conflict-generating society. The registration protocol, forms of documents, and deadlines for submission of documents for state registration are not clearly defined, which enable relevant state authorities to make certain decisions at their own discretion.

Therefore, the main purpose of the article is to analyze the process of acquisition by religious organizations of the status of a legal entity in Ukraine both at the central and regional level as well as to develop proposals for legislation amendments on the registration of religious organizations depending on their types.

Research methodology relies on using a set of methods that assist in achieving the scientific purpose. Such a set primarily consists of dialectical and system-structural methods, formal logic (analysis, synthesis, generalization), and comparative-legal one, which make it possible to handle the texts of statutory acts and doctrinal sources and help forward formulating the author's standpoint meeting the research purpose.

2. Freedom of registration

According to a systematic approach, by the provisions of Article 9 of the European Convention on Human Rights, everyone has the right to freedom of thought, conscience and religion. This right includes freedom to change his religion or belief in worship, teaching, practice and observance, and practice, both individually and in association with others, both in public and in private. Freedom to practice one's religion or beliefs shall be subject only to such limitations as are prescribed by law and are necessary in a democratic society in the interests of public security, public order, health or morals, or the protection of the rights and freedoms of others.

A similar rule is contained in Article 18 of the International Covenant on Civil and Political Rights, according to which everyone has the right to freedom of thought, conscience, and religion. This right includes freedom to hold or receive religion or belief of his choice, and freedom, either alone or in community with others and in public or private, to manifest his religion or belief in worship, practice, worship, and observance. Freedom to practice one's religion or beliefs shall be subject only to such limitations as are prescribed by law and are necessary to protect public safety, order, health, or morals, as well as the fundamental rights and freedoms of others. (*International Covenant on Civil and Political Rights, 1966*).

Thus, international and European standards protect the right to have, accept and leave a religion, as well as the right to practice one's religion, both individually and with others. Based on the content of the cited articles, two dimensions of religious freedom are distinguished – *forum internum*, ie the right to have, accept and leave religion, and *forum externum* – the right to freely practice religion. *Forum internum* – the internal aspect of freedom of religion – is an absolute right that cannot be restricted under any circumstances. At the same time, the state has the right to restrict *forum externum* – the freedom to express one's beliefs externally. Such forms of external expression of beliefs include the freedom to practice one's religion or beliefs in worshipping, teaching, performing, and observing religious practices and rituals, both individually and in association with others, both publicly and privately.

The *forum externum* can be fully used after receiving state recognition of a religious organization, which is manifested in its state registration. Issues of registration of religious organizations are covered both in national legislation and in international treaties. Thus, at its

59th plenary session in Venice on June 18-19, 2004, the Venice Commission adopted directives stating that laws on religious organizations governing the acquisition of legal personality through registration, incorporation, etc., are the most important for religious organizations. The Venice Commission also determined that individuals and groups of persons could freely practice their religion without registration. (*Organization for Security and Co-operation in Europe, 2004*). Such a right of a religious community is stated in part 9 of Article 8 of the Law of Ukraine “On Freedom of Conscience and Religious Organizations” (*The Verkhovna Rada of Ukraine, 1991*).

Despite the importance of legal personality for the exercise of the right to freedom of thought and religion, religious communities cannot be required to obtain legal personality if they do not wish to do so. Acquisition of legal personality is one of the possibilities provided by law and not a duty of religious organizations, so the development of state registration systems must be guided by the principle that registration should help the activities of religious organizations, not hinder or be a means of their control. Thus, the state must ensure the right of religious organizations to obtain legal personality of a type and level that would allow them to carry out the full range of their religious activities following the current legislation of Ukraine.

Access to the status of a legal entity is part of the right to freely practice religion and its external reflection (*Forum externum*). If the organizational life of the community is not protected by freedom of religion and belief, many aspects of individual freedom in this area become vulnerable. This affects the ability to practice one’s religion or beliefs with others and this could jeopardize the viability of the community. (*The OSCE Office for Democratic Institutions and Human Rights, 2019*).

In the 1989 Vienna Document (paragraph 16.3), the OSCE participating states undertook, at the request of associations of believers who profess are willing to profess their faith within the constitutional framework of their states, to recognize the status accorded to them in their respective countries (*Organization for Security and Co-operation in Europe, 1989*).

The procedure for acquiring the status of a legal entity for religious organizations in Ukraine is regulated by the Law of Ukraine “On Freedom of Conscience and Religious Organizations” 987-XII (hereinafter – Law 987) and the Law of Ukraine “On Administrative Services” 5203-VI (hereinafter – Law 5203) and the Law of Ukraine “On State Registration of Legal Entities, Individuals – Entrepreneurs and Public Associations” 755-IV (hereinafter – the Law 755). According to these laws, a religious organization is recognized as a legal entity from the date of its state registration. The charter (regulation) of a religious organization, which by civil law determines its legal capacity, is subject to registration in the manner prescribed by the law (*The Verkhovna Rada of Ukraine, 1991*) (*The Verkhovna Rada of Ukraine, 2012*) (*The Verkhovna Rada of Ukraine, 2003*).

The religious community in Ukraine can function without any bureaucratic procedures, but obtaining the status of a legal entity gives the organization more new opportunities *forum externum*, which has a significant impact on religious life and is associated with obtaining from the state the right to use land or other state permits, invitation of foreign religious leaders, workers, volunteers to the country, organization of visits and missions to prisons and military institutions (chaplancy), the right to establish an educational institution, both for teaching children and for training the clergy, the right to establish separate religious institutions (missions, monasteries etc.) and other rights. A wide range of state financial benefits is also available for registered religious institutions including tax exemptions (п.п 197.1.9 п. 197.1 ст. 197, п.п 283.1.8 п. 283.1 ст. 283 п.п “н” п. 266.1 ст. 266 Of the Tax Code of Ukraine) to direct subsidies (*The Verkhovna Rada of Ukraine, 2010*).

A religious organization without the status of a legal entity may not enjoy the rights associated with the status of a legal entity. These include the right to own or use property, to have a bank account, to employ workers and to participate or to have judicial protection, and other extremely important rights for the exercise of the right to practice one's religion. (*The European Court of Human Rights, 2009*).

Thus, acquiring the status of a legal entity significantly increases the rights and opportunities for religious organizations to profess and disseminate their religious beliefs. However, it is important to adhere to the principles of voluntariness and freedom of choice.

3. Subjects of registration

There are various ways to enable religious organizations to obtain legal personality (registration) if they so wish to do so. In the legal systems of some states, this possibility is provided through court proceedings, in others through an application to a state body. Different states may provide religious communities with different forms of legal personality. In particular, it could be achieved through setting up a trust, a corporation, an association, a foundation, as well as various special (*sui generis*) forms of a legal entity, provided specifically for religious communities or communities that adhere to certain beliefs. (*The OSCE Office for Democratic Institutions and Human Rights and Venice European Commission for Democracy Through Law, 2015*).

One of the scientific problems of Ukrainian legislation is the lack of a clear distinction between different types of religious organizations and method of their registration. Thus, the European Court of Human Rights in the case of St. Michael's Parish v. Ukraine (Application № 77703/01) noted that Article 7 of Law 987 did not contain a clear definition of the term "religious organization". The court also noted that there was a contradiction in Ukrainian law in the definition of a "religious organization" and a "religious community", as the only difference between them was the local status of a "religious community" and the absence of any registration requirements under the law. (*The European Court of Human Rights, 2007*).

Let us try to systematically distinguish the types of religious organizations that exist in Ukraine, based on the provisions of the current legislation:

A) A religious community is a local religious organization of believers of the same cult, religion, direction, current, or sense who have voluntarily united to meet religious needs together (*The Verkhovna Rada of Ukraine, 1991*).

In this definition, we should pay attention to the word "local", which, given the provisions of the current legislation, defines a religious community as an organization that was formed and operates locally in a particular area. This also means that to register, a religious community should apply to the local executive authority (relevant oblast, Kyiv and Sevastopol city state administrations), and not to the State Service for Ethnopolitics and Freedom of Conscience (SSUEFC). For the same reasons, a religious community cannot be formed from individuals living in different parts of Ukraine or abroad.

B) A religious center (administration) is a religious organization formed for the specific purpose of representing interests of an association of religious organizations (*The Verkhovna Rada of Ukraine, 1991*). Religious organizations, the governing centers of which are located outside Ukraine, may be guided in their activities by the guidelines of these centers, provided that the legislation of Ukraine is not violated.

Based on the definition provided by law, a religious center (administration) can be established only by a few religious organizations with the status of a legal entity. In fact, the concepts of "religious center" and "religious administration" are considered being the same.

C) A monastery, a church union, a missionary society (mission) are established by a religious administration/center following its registered statute (regulations). Established monasteries, church unions, missionary societies (missions) carry out their activities based on their statutes (regulations), which are registered in the manner prescribed by law.

Monasteries and church unions may also be established following the procedure provided for by this Law for the formation of religious communities, with the registration of their statutes (regulations).

Here are some aspects to focus on and do in-depth research:

the procedure for the establishment of monasteries, church unions, missionary societies (missions) must be provided by the statute (regulations) of the religious administration/center that establishes them;

monasteries and church unions (excluding missionary societies) may be formed by at least ten adult citizens with subsequent registration of the statute in the SSUEFC;

unlike religious communities, monasteries and church unions are not subject to the “locality” criterion.

D) A theological school is established by a religious administration/center following its registered statute (regulations) for training clergy and other ministers in the required religious specialties.

The procedure for the establishment of spiritual educational institutions should be provided by the statute (regulations) of the religious administration/center that establishes them.

It should also be noted that a theological school cannot provide general education services, as the state education system in Ukraine is separated from the church (religious organizations) and has a secular character. Access to different types and levels of education is provided to citizens regardless of their attitude to religion (part three of Article 35 of the Constitution of Ukraine, part one of Article 6 of Law 987) (*The Verkhovna Rada of Ukraine, 1996*) (*The Verkhovna Rada of Ukraine, 1991*).

E) Religious association is an association of one or more types of religious organizations (religious community, administration, and center, monastery, church union, missionary society (mission), spiritual educational institution), etc. (*The Verkhovna Rada of Ukraine, 1991*). As mentioned above, religious associations are represented by their centers (departments).

A religious association may consist exclusively of religious organizations. Individuals may not form or be members of religious associations.

Thus, religious organizations in Ukraine are created in the form of religious communities, centers, administrations, monasteries, church unions, missions, spiritual educational institutions, organizations, associations. The type of the procedure for state registration and the government authority that will carry out this procedure will depend on the type of religious organization.

4. Registration procedure

In Ukraine, the registration of statutes (regulations) of religious organizations is a complex process in which religious organizations enter into administrative and legal relations with the authorities. It should be noted that today the procedure for granting religious organizations the status of a legal entity is not fully regulated, causes in some cases some arbitrariness of some local authorities, as well as attempts by religious communities to interpret the current legislation in their way (Bukov O.,2011).

The process of creating a religious community can be divided into two separate but interrelated stages. At the first stage, the charter of a religious organization is registered. At the

second stage, the state registrar, based on the registered charter and the decision of the highest governing body of the religious organization, enters information about such organization in the Unified State Register of Legal Entities of Individual Entrepreneurs and Public Associations (USR). A similar algorithm is used when performing registration actions related to changes to the statutes/regulations of religious organizations.

The first stage – registration of the statute of a religious community – is based on the application of at least ten citizens who formed it and reached the age of 18, who submit an application and a statute for registration to the relevant regional state administration. Religious centers, administrations, monasteries, church unions, missions, and theological educational institutions apply for registration to the central executive body that implements the state policy in the field.

The bodies authorized to register the statutes of religious communities are: 1) regional state administrations; 2) Kyiv and Sevastopol city state administrations; 3) The Government of the Autonomous Republic of Crimea. The following are submitted to these executive bodies: an application, the form of which is indefinite; regulations; protocol; a copy of the document on the right of ownership or use of the premises or the written consent of the owner of the premises to provide an address at the location of the religious community. As a result of the review of the charter, the executive body issues an administrative document on the registration of the charter of the religious community.

It should be noted that regional state administrations do not have a unified structure, in addition, following the resolution of the Cabinet of Ministers of Ukraine “On recognizing as invalid some resolutions of the Cabinet of Ministers of Ukraine” from 06.02.2013. №99, the Resolution of the Cabinet of Ministers of Ukraine “On Approval of the Standard Regulations on the Department for Nationalities and Religions of the Kyiv City State Administration, the Department (Department) for Nationalities and Religions of the Sevastopol City State Administration” of 12.03.2008 №171 was repealed. led to the assignment of relevant functions in the field of state and religious relations to various departments of regional state administrations, which in turn negatively affects their activities (*Cabinet of Ministers of Ukraine, 2013*). At the same time, the resolution of the Cabinet of Ministers of Ukraine of December 28, 2020, № 1336 recommended the creation of structural units of culture, nationalities, and religions in the region, Kyiv, and Sevastopol city state administrations (*Cabinet of Ministers of Ukraine, 2020*).

On August 18, 2021, the Cabinet of Ministers slightly changed the procedure for submitting documents for registration of religious communities and found that documents related to the registration, amendment, liquidation and reorganization of religious communities are submitted through the Centers for Administrative Services (CAS). Thus, religious communities can submit documents for their registration through CAS or directly to regional state administrations.

However, the legislation provides for a slightly different procedure for registering the statutes (regulations) of such religious organizations as religious centers, administrations, monasteries, church unions, missions and religious educational institutions, which submit the registration (statutes) to the central executive body implementing the state policy in the field of religion – the State Service of Ukraine for Ethnopolitics and Freedom of Conscience (SSUEFC).

The second stage – the state registration of the establishment of a religious organization as a legal entity – takes place at the request of religious organizations to the state registrar for inclusion in the USR. At the same time, an application for state registration of a legal entity (of a certain form №2) is submitted; charter, protocol, administrative document on registration of the charter by the relevant public authority, certifying the positive completion of the first stage of registration of a religious organization. The submitted documents must comply with the

completeness, content and form that meet the requirements of Articles 15 and 17 of the Law of Ukraine “On State Registration of Legal Entities, Individuals – Entrepreneurs and Public Associations”. The result of state registration is the issuance of an Extract from the USR (*The Verkhovna Rada of Ukraine, 2003*).

In its recommendations, the OSCE noted that registration can help build stable and trust-based relations between the state and religious organizations. (*The OSCE Office for Democratic Institutions and Human Rights, 2019*). However, the European Court of Human Rights has noted that there is a lack of transparency in Ukraine regarding such registration (*The European Court of Human Rights, 2007*), which increases distrust of state institutions.

Thus, the registration of religious organizations consists of two stages. At each stage, religious organizations must submit the same documents as well as confirmation of successful completion of the previous stage. Also, religious organizations, depending on their type, should apply to the correct executive body.

5. Conclusions

Religious organizations can carry out religious activities without state registration, but registration provides more opportunities for external expression of religious beliefs (*forum externum*). Following its commitments, Ukraine must provide all legal mechanisms for the smooth exercise of the right of religious organizations to register.

The procedure for registering religious organizations in Ukraine is a complex double procedure and needs to be simplified. Vague provisions of the law led to the illegal expansion of the discretionary powers of the authorities, which in turn allowed them to determine in full or in part the application of the type and content of the executive decision. The vague limits of the discretion of the administrative bodies when reviewing the statutes of religious organizations lead to an increase in the number of lawsuits. In this regard, there is an urgent need to improve existing legislation in terms of providing a normative definition of types of religious organizations, their differences from each other, delimitation of competencies of central and local executive bodies, abolition of double registration, the procedure of religious examination, etc.

The generalizations made it possible to scientifically substantiate the following proposals aimed at changes in the functioning of the mechanism of implementation of state policy in the field of socio-religious relations:

allowing the state registration of religious organizations by submitting documents in electronic form with an electronic signature;

developing state standards for protocols and statutes of religious organizations submitted to a state body, as their absence leads to unjustified denials of state registration.

To ensure the implementation of a unified state policy in the field of socio-religious relations, it is necessary to create territorial (regional) subdivisions of SSUEFC and transfer powers to register religious communities from regional state administrations to SSUEFC which would have unified approaches.

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SUGAR INDUSTRY IN THE NEW ECONOMIC POLICY IN THE LEFT BANK OF UKRAINE: HISTORICAL CONTEXT

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Summary

The article examines the situation of the sugar industry during the new economic policy in Left-Bank Ukraine. The task is to determine the working conditions of the industry, financing, land issue, and the impact of political events on the development of the sugar industry. The authors identify such important areas of research as recovery, production, achievements, the position of workers during production, the formation of sugar prices, and so on. It is necessary to take into account the conditions of the new economic policy, which significantly changed the life of sugar factories. The article examines the issues of sugar beet cultivation technology and technical support of the industry, the cost and competitiveness of sugar industry products. The article describes the impact of the new conditions on the management of sugar factories in Ukraine as a whole and separately in the Left-Bank Ukraine, as well as the activities of Tsukrotrest. The article examines the importance of the sugar industry for agriculture and for the country's economy. The authors explore sugar factories in the Left-Bank Ukraine in the article, and also use a vivid example of the Tsyhlerivka Sugar Factory, which is located in the Kharkiv region. This helps to recreate a clear picture of the "sweet life", the specifics of the industry. It is concluded that the sugar industry in the NEP environment required a lot of effort to achieve high performance, and indeed, to produce high-quality products for the Ukrainian population.

Keywords: economic history, Ukrainian SSR, agriculture, factory workers, state management.

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1. Introduction

In recent decades, scientific interest in the study of the sugar industry in the Left-Bank Ukraine during the NEP years has significantly increased. Because the current state of this industry requires important changes in order to improve economic changes in society. To recreate the reality and understand the erroneous measures of this period is presented to the authors, to recreate the gaps in historical research. Indeed, looking through modern research on our issue, there are fragmentary works, which makes the study of this problem relevant.

History and modernity are closely linked. The development of independent Ukraine takes place through the functioning of a market economy in various sectors of the national

economy. Among them, the sugar industry stands out vividly. To predict the future, you need to avoid mistakes by studying the past. Economic changes in the period of the new economic policy have invaluable experience for today. Sugar is a product of everyday consumption, and therefore plays a key role in solving the food problem. In addition, the sugar industry is closely linked to many other sectors of the national economy, contributes to the industrialization of rural areas, and provides jobs for many rural residents.

The purpose of the article is to study the main directions of development of the sugar industry in the years of the new economic policy in the Left-Bank Ukraine. The chronological boundaries of the study are the years of the new economic policy, i.e. 1921-1928, i.e. the period of transition to new forms of farming, the impact on the studied industry and the fate of workers, employees, and peasants of the sugar industry.

When writing the article, the authors used the following groups of sources: periodicals, archival sources, thematic collections of documents, statistical materials. So, the documentary base provides an opportunity to reveal and investigate the problems. Working with documents required research methods. Such methods as the historical-system method, the periodization method, and the historical-typological method were used.

Analysis of recent studies. Reproducing the historiographic review of this issue, it should be mentioned that the literature has two directions: the new economic policy and the sugar industry of the Left-Bank Ukraine. Regarding NEP, we should mention the monographic studies (*Kalinichenko, 1997; Morozov, 1993; Lazurenko V. M. Paskalenko V.Ye., 2011; Marochko, 1995; Kulchytskyi, 1999*). Researchers of agricultural relations in Ukraine have made a significant contribution to the study of the problem. The history of studying the domestic sugar industry is divided into stages. With the declaration of independence of Ukraine, a new stage of historiography begins. Many issues were considered from a new point of view (*Zaiets, 2003; Kalinichenko, 2006; Rakovskyi, 1998; Buravchenko, 2006*). Regarding our study period, there were no significant works, so an important task is to study this issue.

2. The state of the sugar industry at the beginning of the Soviet period

Looking at the period under study, it should be noted that the events of that time were the main factor in the transition to a new economic policy. The Bolsheviks believed that it was possible to stop the decline in production in the sugar industry only if it was nationalized. The first step in the state management of factories was the formation of a temporary commission to organize the main sugar committee in Moscow in March 1918. In Soviet Russia, the sugar industry was nationalized. But Ukraine was occupied by German troops, so nationalization was later here. At the beginning of 1919, the Bolsheviks restored Soviet power for the second time in Kharkiv, where the Council of people's commissars of the Ukrainian SSR launched its activities. On January 16, 1919, the sugar industry of Ukraine was nationalized by a decree of the Soviet government of Ukraine. The Main Directorate in Kiev, as well as district departments and plant departments became the governing bodies of the nationalized sugar industry of Ukraine. Sugar factories had to be set up and provided with raw materials, that is, sugar beet. Of course, it was necessary to resolve the land issue. The turning point in solving the land issue was the decree of the VUCIK and the Council of people's commissars of the Ukrainian SSR "on the nationalization of land for the sugar industry of Ukraine" of January 4, 1922. The essence of the decree was that all former non-labor lands that previously served sugar factories were placed at the disposal of land bodies for distribution between landless and small-land peasants on a general basis, with the exception of 400 thousand Des. arable land

for the needs of sugar factories. These lands were needed by factories to create seed, feed and food needs and to create the main raw material Fund. Commissions on the nationalization of land for the sugar industry were supposed to complete the allotment of land in 1922. in the Left-Bank Ukraine, 130.3 thousand des were allocated. land, 3.3 thousand Des. for one sugar factory. For example, 6.3 thousand land des were allocated for the Tsyhlerivka Sugar Factory (*Kalinichenko, 1999: 56*).

Management of sugar factories in Ukraine at the first stages of changes was in two regional departments – in Kiev and in Kharkiv. Gradually, the management structure changed. In 1923, the regional departments of the sugar industry were reorganized into branches of “Tsukrotrest” – Kharkiv, Kiev, Podolsk. So, during the period of the new economic policy, there were changes in the organization that aimed to improve the production of the sugar industry. Research on this issue is, of course, important. Since the fate of the peasants who worked in sugar production depended on production.

3. Restoration of production

Gradually, sugar factories resumed their work and hoped for new achievements. For example, the Tsiglerovsky sugar factory in Kharkiv region resumed its production on October 1, 1925. The plant had 11 engines with a total capacity of 381 horsepower, 9 boilers with a total heating area of 1380 square meters. m, 464 workers and employees worked. The average daily processing of sugar beet gradually increased: in 1925/26 – 6600 centners, in 1928/29 – 6730 centners (*Kalinichenko, 1999: 57*). It should be noted that this sugar factory was average in its capacity in Left-Bank Ukraine. So, in 1932, the average capacity of a sugar factory in Left – Bank Ukraine was 8,000 centners of beet per day, and in Ukraine-7,300 centners. of course, each year there were its own factors that affected the quality of production.

4. Raw materials and land use

An important issue in the sugar industry is the supply of raw materials. With the transition to NEP, much attention is paid to the cultivation of sugar beet. Back in 1921, at the Congress of Rautsukrov in Kiev, the restoration of prizavodsk farms and breeding stations was identified as one of the main tasks for restoring the sugar industry. It was planned that these farms should provide raw materials for up to 50% of the total demand. Farmers also had to take care of seed material. An important issue of this process was crop rotation, without which there would be no high yields.

At the same time, it should be noted that peasant land use is a significant layer of solving the raw material base. In our case, it is important to note that land is the basis of Agriculture. In sources about the composition of land, researchers use different figures. This is explained by the fact that in 1917 an agricultural census of the territory of Ukraine was conducted, but it does not give a complete picture of those times. During our study period, a sample survey was conducted in 1922. And in 1929, they conducted a study of the information of district statistical bureaus, which was a reliable source.

5. Organization of production

At the beginning of 1924, the Board of Tsukrotrest organized an agronomic Congress, where it characterized the state of the sugar industry and planned practical measures for beet

sowing and state financial assistance. Such measures confirm the importance of developing the sugar industry. In the 1920s, the Soviet government confiscated land from landlords and transferred it to collective farms and peasants. In 1929, 8.2% of peasant land belonged to collective farms, 91.8% was in individual land use (*Kulchytskyi, 1999*).

Consequently, the land issue was gradually resolved and was relevant in rural areas, leaving unresolved issues and difficulties for the sugar industry. Continuing to study the ways of land affairs, it should be mentioned that in January 1924, the VIII all-Ukrainian Congress of Soviets was held, where they discussed the stabilization of peasant land use as the basis for the development of Agriculture. It was decided to stop the redistribution of land and assign the existing land use to communities and yards. To quickly rebuild agriculture, they began to use rent. As for sugar factories in Left-Bank Ukraine, more than half of the leased land fund was made up of sugar factories.

Taking the Tsyhlerivka Sugar Factory as an example, we observe the following situation. On January 30, 1920, the Konstantinovgrad Revolutionary Committee sent its representative to the plant. From among the workers and employees of the plant, a commission headed by the plant commissioner was created to accept the plant's property and sugar available there. But the plant did not work until 1925. In 1922, 43 tithes of sugar beet were sown and 5,483 berkovtsy were obtained. All the beets were taken to the existing Charles Sugar Factory. It was necessary to concentrate production by reducing the number of operating plants (*Kalinichenko, 1999: 57*).

Regarding the land issue at the Tsyhlerivka Sugar Factory, the situation has developed as follows. All lands that have included sugar beet crops for 5 years are transferred to sugar factories. In general, the literature notes that in the 20s there was a real turn towards the growth of the sugar industry. In 1922, 10,003,856 pounds of sugar were produced, which is 11.8% compared to 1914. In 1923, 18,923,936 pounds of sugar were obtained, or 22.3% compared to the pre-war level (*Central State Archive of Higher Authorities and Management of Ukraine, F. 337, In. 1, F. 1280*).

Its own farm itself existed all the years, even when the plant was not working (1920-1924), part of its land was leased to the surrounding peasants, and some of it was managed by themselves (*Kalinichenko, 1999: 66*).

Industrial restoration and technical improvement are gradually continuing, and professional technical workers are being formed, which significantly affects stabilization. For example, there was no sugar reconstruction at Tsyhlerivka Sugar Factory. Pre-revolutionary equipment was used here, although only the equipment that failed was changed during the work. The technology of sugar production at the plant was typical and did not fundamentally differ from sugar production at the beginning of the XX century. So, the authors in the study gave an example of the development of a sugar factory in Left-Bank Ukraine during the NEP period. Difficulties in production were present, as with the transition to NEP, periodic crises were caused by various reasons.

The production of sugar factories during the 20s was chaotic and disorganized. Therefore, the situation of the workers was quite difficult and "unsweetened". They worked in difficult conditions and ate very poorly. Factories were launched without providing proper conditions and lack of raw materials. For example, at the Tsyhlerivka Sugar Factory in Kharkiv region, only at the end of the NEP did the staff of specialists gradually improve. There were 26 engineering and technical specialists, 5 engineers, 10 mechanics, and 11 other specialists. The specifics of sugar industry production required a thorough knowledge of the technological process, so specialists needed separate training and careful implementation of technologies. These data reflect the average sugar factory in Left-Bank Ukraine. The fixed capital of the

plant as of October 1, 1929 was 2146 thousand rubles, which exceeded its value in 1913 (Kalinichenko, 1999: 62).

The management was constantly changing and sometimes incompetent. As a result, sugar factories operated for a short period of time and had a low level of product quality. This transition period affected the development of the village and its population.

The period of restoration of sugar factories was carried out in order to increase production and product quality. Personnel support was formed, and the latest technical achievements were used. Gradually, it became clear that a number of measures needed to be taken to achieve the desired result. The new economic policy should create favorable conditions for the recovery of the sugar industry. The main Department of the sugar industry (Golovtsukor) was reorganized into Tsukrotrest, which was subordinate to the Supreme Economic Council of the RSFSR (Martsynishyn, 1997: 11). that is, the management activities of the trust were geographically remote from direct producers of products, which significantly reduced the efficiency of managing the sugar industry. During the completion of the NEP, when the situation is improving, the development of the sugar industry in Left-Bank Ukraine was practically not stable. Although the economic changes in the study period opened up new opportunities for the producer, however, lack of funds, problems in management, and many other errors in the organization of the sugar industry did not allow the sugar industry to achieve the desired results.

6. Conclusions

The development of the sugar industry in Left-Bank Ukraine during the years of the new economic policy occupied an important place in agriculture. Natural conditions, fertile soils, and a sufficient amount of Labor made it possible to restore and develop the industry after the political events of those times. In the early 20s, there were a number of reasons for the difficult situation of sugar factories. Therefore, an important task for the Soviet leadership was to restore the industry. Reality required new changes and reconstructions. The question for researchers about the results of such changes is still relevant today.

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HISTORICAL ASPECTS AND PROSPECTS OF PET THERAPY DEVELOPMENT IN UKRAINE

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Summary

Pet therapy is characterized as a separate area. There are well-developed areas for nowadays: hippotherapy, dolphin therapy, canine therapy, feline therapy. The formation of PET therapy as a separate direction in rehabilitation, psychotherapy and special education from ancient times to the present is considered. The most defining events that affected the development of this area are noted and on this basis four stages in the formation of this area in chronological order are identified (I – unsystematic use of animals in the home; II – targeted use of animals for therapeutic purposes; III – targeted use of animals for pet -therapy on a scientifically sound methodological basis; IV – the modern period of the current direction of PET therapy). It is noted that the current stage is characterized by the fact that the developed techniques are deepening, the scope of application in this area is expanding, the probable risks are taken into account, research in PET therapy is characterized by a significant volume and thorough methodological approaches, and so on. The state of development of this direction in Ukraine is estimated. It is noted that Pet therapy is beginning to be actively used in our country. In recent decades, the number of specialized centers for pet therapy has increased significantly, contact zoos are organized at zoos, animals are used in educational centers to simplify the perception of information, and so on. The latest approaches are applied, the latest methods are introduced, resource centers are organized, methodical elements of PET therapy are introduced into the educational programs of specialized educational institutions.

Keywords: pets, animal-associated therapy, animal-associated activity, history of PET-therapy, Animal-Assisted Therapy.

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1. Introduction

Modern medicine and special education uses animals to interact with patients and students for therapeutic purposes and to facilitate the perception of educational information. But, despite the fact that historically, keeping animals at home has long been used in people's lives to meet a number of psycho-emotional needs and, in particular, to optimize and stimulate the development of children in the family (*Filippova, 2004*), the formation of pet therapy due to the stage of rejection and mistrust has not yet taken place and has not been widely used in the practice of doctors and speech pathologists. It is also important to

consider that today the urbanization and technologicalization of society contributes to the fact that man is trying to fill the lack of contact with nature by keeping animals at home (*Filippova, 2004*). At the same time, the same urbanization and technologicalization, and with them the dynamic way of life of modern society, often does not allow keeping pets. In this case, as noted by (*Bugaeva, 2011*), pet owners in early adulthood generally feel better than people who do not have their own pets. This proves the importance and effectiveness of PET therapy (*Bugaeva, 2011*).

2. Modern PET therapy's main elements and orientation

PET Therapy or Animal-Assisted Therapy has developed rapidly in recent decades. One of the applied problems solved by pet therapy is the use of knowledge about the psyche of animals for further use in providing development and psychotherapy. In this case, we are talking about those animals that can positively contribute to the human psyche. Interaction with such animals promotes the development of perception, attention, motor activity, communication and cognition in children (*Savicheva, Krjachko, & Lukojanova, 2015*). This is primarily psychotherapy, in which the main therapeutic tool is human interaction with animals. This interaction is significantly different from other therapeutic agents (interaction with inanimate objects in different types of therapy, with the therapist or group therapy participants). The main differences are as follows: the animal has an internal source of activity. As a result, it becomes relatively unpredictable for both the patient and the therapist, the animal has an "internal position", its own motivation and is involved in the process of interaction with man, actively expressing this position, the animal is not a bearer of meaningful and evaluative function (*Filippova, 2004*).

In Pet therapy itself there are two main areas. The first is the actual therapy with the use of animals. The so-called animal-associated therapy. This therapy is aimed at direct treatment, including the development of motor skills, recovery from serious illness, alleviation of mental illness, etc. The second direction is more general work with animals. This is the so-called animal-associated activity. This work is aimed primarily at evoking positive emotions in patients. Among the main subsectors should be highlighted sufficiently developed areas today: hippotherapy (work with horses), dolphin therapy, canine therapy (work with dogs), feline therapy (work with cats). Training animals (*Hooker, Freeman, Stewart, 2002*) are better suited for specific work with patients. According to research (*Smolova, 2008*), the animal is able to reduce the stress associated with the loneliness of isolated people, can compensate and meet the daily needs of communication. If there was a dog in a wheelchair with a child, in the study they were service dogs (servicedogs), the people around them approached them much more often. Dogs created favorable conditions for communication, reducing the discomfort of communication, because a child with a disability who had a dog, others considered more healthy (*Dudar', Husjainov, 2008*).

The use of animals has proven itself in particular for the treatment of epilepsy, rehabilitation after stroke, training for cerebral palsy and others. Pet therapy is also used in medical and special pedagogical practice for diseases and disorders not related to the nervous system. (*Duncan, Susan, Loneliness, 1995*) also note the positive effect of contact with pets on lowering blood pressure. Even the usual observation of aquarium fish lowers blood pressure more than at rest, when a person just sits and looks at the wall. Also noted (*Chinner, Dalziel, 1991; Cox, 1993 and Hooker, Freeman, Stewart, 2002*) as a separate use of PET therapy in hospices to help patients and staff interact, and to reduce tension and stress.

3. Origins of PET-therapy formation

PET-therapy as a separate area in rehabilitation, psychotherapy, special education and other fields began to be used in the late twentieth century (Klevaka, 2017). However, even before the 1960s, the practice of using animals for therapeutic purposes was used. Thus (Tuke, 1964), as well as (Hooker, Freeman, Stewart, 2002; Klevaka, 2017) indicate that in 1792 the Quakers in a psychiatric hospital revised the rules of treatment with crazy after the tragic death of a patient at the Retreat Clinic, opened by William Tuck. Under the new rules, the treatment process at this hospital was based on the principles of humanism, which included gardening, yard exercises and the presence of animals.

(Levinson, 1997) notes that despite such a rich and interesting history and the fact that such therapy has been used informally at the household level since the time of animal training, pets have brought comfort, relaxation and motivation to family members for centuries, only since 1960 The term pet therapy was introduced and official documentation on its use was started. During this time, PET therapy has passed the way to its formation as a successful theoretical and practically significant science. According to (Hooker, Freeman, Stewart, 2002), during this time, the use of pet therapy has grown from unsystematic use to inclusion in health care programs supported by research. This evolution remains unfinished. There is much more to learn and explore using animal health to help heal the human mind and body (Hooker, Freeman, Stewart, 2002).

Until 1961, there were some mentions of the benefits of using animals in the practice of therapeutic and psychological work. Thus (Nightingale, 1860), noted that poultry in cages are sometimes the only pleasure for a disabled person whose space is limited to one room.

In the United States, the history of pet therapy began in 1919, when Home Secretary F. K. Lane proposed the use of dogs with psychiatric patients at St. Mary's Hospital. Elizabeths Hospital in Washington, D.C. During 1944-1945, Army Air Corps Convalescent Hospital at Pawling, New York used animals to heal veterans. However, data on the therapeutic effect were not collected at that time (Hooker, Freeman, Stewart, 2002).

The stage of formation of Pet-therapy as a separate direction of therapy can be outlined in 1961, because, as noted (Hooker, Freeman, Stewart, 2002) it was this year that New York psychotherapist Boris Levinson documented his observations in the field of security health began to consider the integration of pet therapy for legitimate therapeutic use.

Dr. Levinson was the first to write about the use of a dog as a tool to facilitate work with a child-client (Levinson, 1997). Dr. Levinson found that the presence of a dog was a positive focus at the beginning of communication, allowing the defenses to soften, build relationships, and initiate therapy. After Dr. Levinson presented his findings at the 1961 American Psychological Association convention, he described part of the audience as "enthusiastic, some embarrassed, and some others asking if my dog was attending the meeting" (Levinson, 1997, 38). Dr. Levinson's work on the use of pets was then extended to adolescent and adult psychiatric hospitals at Ohio State University by psychiatrists Sam and Elizabeth Corson in the early 1970s. They were the first to use animals in the hospital and collected quantitative data from pilot studies (Corson, Corson, Gwynne, Arnold, 1975). In 1975, the couple moved their animal therapy project to a nursing home, where elderly patients were successfully introduced to pet therapy. It was in the nursing home that the Corsons began to celebrate the improved physical, psychological, and social status of pet care patients. The proposal to study using pets as independent living helpers and using them as institutional therapy, similar to music and art therapy, also proceeded from this situation (Hooker, Freeman, Stewart, 2002). In 1977, the first permanent Pet Therapy program

was opened at the University of Ohio. In 1980, there were about twenty programs like these in the United States, and by 2000 – more than a thousand (*Ostroumova, & Makarova, 2016*).

4. Future historical development of PET therapy

During the 1980s, the professional literature began to pay attention to the topic of pets. Articles have discussed its definition and use of animals as resources for nursing interventions (*Davis, Juhasz, 1984; Haggard, 1985; Davis, 1988; Carmack, Fila, 1989*). Many studies have included descriptive information on the positive effects of pet therapy on patient outcomes (*Erickson, 1985*). Most articles also contained tips on initiating a pet. therapy, selection of appropriate animals, avoidance of possible dangers (*Davis, Juhasz, 1984; Haggard, 1985; Davis, 1988; Carmack, Fila, 1989*). (*Baun, Langston, 1984*) published studies confirming the conclusion that in people who do not suffer from hypertension, communication with their own dog lowers blood pressure. The results showed that people with pets had a much higher survival rate than those who did not have pets. The effects of a dog's presence on children at rest and during light stressful activities without a dog were also considered. These types of publications contributed to further research and articles (*Hooker, Freeman, Stewart, 2002*).

The 1990s brought an explosion of information and research into animal therapy. One such area, which included research on pet therapy, was home health. The study found that elderly patients who had previously had pets had significantly lower blood pressure and heart rate after visiting a wellness center that included a dog (*Harris, Rinehart, Gerstman, 1993*). Studies on the effects on the cardiovascular system have also been conducted (*Friedmann and Thomas, 1995*). Dogs were later used in this study when visiting home medical facilities with children (*Hooker, Freeman, Stewart, 2002*).

The effect of pet therapy on elderly patients, both at home and in long-term care, was also studied. A long study of independent living of older people found that after 1 year, pet owners maintained a higher level of activity in everyday life than those who did not have pets (*Raina, Waltner-Toews, Bonnett, Woodward, Abernathy, 1999; Staats, Pierfelice, Kim, Crandell, 1999*).

Studies of inpatients with Alzheimer's disease have also shown increased socialization or social activity in the presence of a therapy dog (*Hooker, Freeman, Stewart, 2002; Kongable, Stolley, Buckwalter, 1990; Chruchill, Safaoui, McCabe, Baun, 1999*).

Research on psychiatric patients has also continued. The study (*Barker and Dawson, 1998*) showed a reduction in anxiety for a greater variety of mental health diagnoses, compared with the use of recreational therapy alone.

Studies with chemically addicted recovering individuals in group therapy have revealed the presence of a therapy dog which helps to remove barriers to communication (*Campbell-Begg, 2000*).

The increase in the number of animals used for pet therapy has raised questions about the likelihood of zoonoses, leading to a variety of recommendations, rules and protocols for the use of animals. It is also important to choose the right animal for further therapy. After all, it is crucial for success and requires consideration of the animal's personality and training it as a therapeutic pet. These considerations reduce the incidence of allergic reactions, bites, and programs have been noted to prevent the occurrence of specific infections in immunocompromised patients (*Connor & Miller, 2000*). To date, protocols for the use of animals for pet therapy provide that all of them must be regularly examined by a veterinarian, be vaccinated against major diseases in order to prevent a variety of animal-specific diseases (*Guay, 2001*).

Current research allows us to process a significant amount of experimental data and obtain reliable results regarding the effectiveness of PET therapy. Thus, (Barker; Dawson, 1998), from the School of Medicine at the University of Virginia studied the effect of therapy dogs on the level of anxiety of hospitalized mentally ill patients. Of 230 people who participated in the study, patients with depression, bifurcation, and schizophrenia were among the most significant diagnoses. Almost all showed a significant reduction in animal anxiety. Exceptions were patients with pronounced degrees of dependence – which, according to the author, is associated with the withdrawal syndrome (Barker; Dawson, 1998; Sawicki, 2002; Bugaeva, 2011).

So, summarizing, in the formation of PET therapy as a separate area can be divided into the following stages of development:

- unsystematic use of animals in the home. This stage is characterized by the fact that the animals were used primarily for their intended purpose, but, at the same time, communication with domestic and farm animals caused a certain therapeutic effect. Time period – from ancient times to the end of the XVIII century;

- targeted use of animals for therapeutic purposes. This stage is marked by the fact that animals began to be used for a direct purpose – to obtain therapeutic and psychological effects. Time period – from the end of the XVIII century to the end of the XX century;

- targeted use of animals for PET therapy on a scientifically sound methodological basis. This stage of formation of PET therapy as a separate direction in rehabilitation, psychotherapy and defectology is marked by the fact that the use of such therapy is already based on reliable data on the positive impact of animal use in therapeutic practice, used techniques, etc. Time period – from the 70s of the twentieth century to the 90s of the twentieth century;

- the modern period of the formed direction of PET therapy. This stage is characterized by the fact that the developed techniques are deepened, the scope of application of this area is expanded, the probable risks are taken into account, research in PET therapy is characterized by a significant volume and thorough methodological approaches, and so on. Time – from the 90s of the twentieth century to nowadays.

5. PET therapy development in Ukraine

Pet therapy begins to be actively used in Ukraine. In recent decades, the number of specialized centers for pet therapy has increased significantly, contact zoos are organized at zoos, animals are used in educational centers to simplify the perception of information, and so on. The newest approaches are applied, the newest techniques are introduced, resource centers are organized, methodical elements of PET therapies are brought in educational programs of profile educational institutions.

Thus, in Veseliv'sky psychoneurological boarding school, located in the village of Uritske, Zaporizhia district, Zaporizhia region, there is a project "Pet therapy". The aim of the project is social adaptation, creative and sports rehabilitation, ecological and physical education of wards, improvement of their moral and psychological condition through hippotherapy, zootherapy (communication with horses, contact with animals, riding training, development of ecological, physical culture and creative growth personality, occupational therapy); prevention of socially dangerous forms of behavior; career guidance; organization of summer leisure. After the implementation of the first stage of the Project, the psychologists of the institution observed positive dynamics in the behavior of all wards after classes: the girls, being outside the boarding school, became more sociable and gained indispensable experience in managing themselves in unusual life situations. They began to behave more confidently and calmly, became more open, cheerful.

The significant level of interest in Pet therapy is indicated by the fact that on May 22, 2018 in Kharkiv a round table was held with the participation of the Deputy Mayor for Health and Social Protection, leaders and representatives of public organizations, the utility company “Center for Behavior with animals”, juvenile prevention regarding the creation of the first in Ukraine resource center for canis therapy.

In Kharkiv, in the Kharkiv City Shelter for Homeless Animals, volunteer dog walking is organized, which not only simplifies the work of the staff, but also allows everyone to get in touch with animals for the purpose of psychological relief.

6. Conclusions

Pet therapy, as a separate area, is rapidly developing and gaining popularity in recent decades. These approaches are very promising not only in medicine and rehabilitation but also in special pedagogy. Today, pet therapy has a wide and diverse field of application and is characterized by two main areas – animal-associated therapy and animal-associated activity. To the current level of development of this area there has been an evolution in the perception of Pet therapy by society from non-perception and frivolous attitude to the use at the level of other methodological approaches. This formation clearly outlines the four stages of formation of PET therapy. In Ukraine, in recent decades, Pet therapy is becoming more widespread on a scientifically sound methodological basis with the involvement of innovative approaches and new techniques.

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TEORETYCZNE ASPEKTY ANALIZY ROSYJSKIEJ AGRESJI NA UKRAINĘ

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Abstrakt

Rosja do tej pory nie pogodziła się z istnieniem Ukrainy jako niepodległego państwa i traktuje ją historię, kulturę i ludność jako część własnej tożsamości. W 2014 r. wskutek takiej nieadekwatnej percepcji stanu rzeczy w stosunkach dwustronnych Federacja Rosyjska rozpoczęła hybrydową agresję na Ukrainę, której towarzyszyła zakrojona na szeroką skalę kampania dezinformacyjna i narastająca konfrontacja z Zachodem. Rosyjski dyskurs polityczny reprezentuje sobą zestaw charakterystycznych narracji strategicznych, które zostały wykorzystane przez kremlowskie elity do przekonania głównych aktorów światowych o „prawomocność” jej działań na arenie globalnej. Te narracje narzucają rosyjską wizję systemu międzynarodowego, wzmacniają wewnętrzną legitymizację reżimu i wpływają na opinię publiczną za granicą. Biorąc agresję na Ukrainę jako punkt odniesienia, niniejszy artykuł proponuje ramy teoretyczne, które pozwalają przeprowadzić analizę obecnej rosyjskiej polityki zagranicznej z perspektyw narracji strategicznych, dyskursywnej, postmodernistycznej i językowej. Przyczynia się również do badania zakresu i metod rosyjskiej działalności wywrotowej w globalnym obszarze informacyjnym oraz ukazuje systematyczny i długotrwały charakter jej polityki wrogości wobec Zachodu, a zwłaszcza Ukrainy.

Słowa kluczowe: narracje strategiczne, analiza dyskursu, postmodernizm, teoria języka.

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1. Wstęp

Jeszcze do niedawna w literaturze akademickiej dominowało realistyczne podejście do określania potęgi państw. Naukowcy i politycy skupiali uwagę głównie na arsenałach broni jądrowej i konwencjonalnej, czyli na “hard power”. Ale we współczesnych konfliktach międzynarodowych geopolityczna waga aktorów polega nie tyle na ilości zasobów materialnych i sprzętu wojskowego, co na zdolności kontrolowania opinii publicznej we własnym i przeciwnych krajach. W czasach epoki informacyjnej sukces odnosi ten, kto stwarza i narzuca najbardziej przekonującą interpretację wydarzeń. Joseph Nye słusznie zauważył, że zwycięstwo zależy nie od tego, czyja armia wygra, ale od tego, czyja historia wygra” (Nye, 2014). Tą samą myśl rozwija Beatrice de Graaf w swoim badaniu narracji wojny w Afganistanie, argumentując, że „sukces na wojnie prawie zawsze polega na przekonaniu jednej lub kilku grup odbiorców w pewnym rozumieniu rzeczywistości” (de Graaf et al, 2015:5).

Rządząca klasa Rosji postrzega przestrzeń informacyjną jako kluczową arenę globalnej polityki, na której toczy się gra o sumie zerowej, a walczące strony starają się promować własne interesy kosztem innych. Aneksja Krymu i agresja na wschodzie Ukrainy wykazały, że Federacja Rosyjska opanowała umiejętność planowania i realizacji zakrojonych na szeroką skalę kampanii medialnych skierowanych zarówno do wewnętrznych i zewnętrznych odbiorców. Tak, aktualna Koncepcja Rosyjskiej Polityki Zagranicznej (2016) jednoznacznie stwierdza, że „Rosja rozwija własne skuteczne środki oddziaływania na opinię publiczną za granicą oraz zapewnia niezbędne

wsparcie państwa dla rosyjskich mediów w globalnej przestrzeni informacyjnej”. Na prowadzenie globalnej wojny informacyjnej „bez zasad i granic”, która oprócz oficjalnej dyplomacji obejmuje kontrolowane przez Państwo media, sieci organizacji pozarządowych i specjalnie tworzone „fabryki trolli”, przeznaczają się ogromne środki. Pozwala to władzom rosyjskim na skuteczne kierowanie percepcją wojny rosyjsko-ukraińskiej na poziomie narodowym i w mniejszym stopniu, międzynarodowym. Z jednej strony narracje te budowane wokół cywilizacyjnej konfrontacji ze zbiorowym Zachodem, a z drugiej – wokół idei „zagrożenia faszystowskiego” na Ukrainie. Zapleczem ideologicznym wystąpią kompleksy przekonań mozaikowo łączące elementy doktryny zimnej wojny z mitami przedrewolucyjnej imperialnej Rosji. Za pośrednictwem współczesnych rosyjskich intelektualistów i ideologów ten bardzo specyficzny system wiedzy przetworzył się w rodzaj de facto ideologii państwowej. Po 2014 roku te idee ostatecznie przesunęły się z kręgów intelektualnych do gabinetów Kremla, stając głównym wektorem rosyjskiej polityki zewnętrznej. Ideologia, często oparta na błędnych stwierdzeniach, historycznych mitach i kompleksach zbiorowych, została mocno zaszczerpiona w świadomości rosyjskich elit i szerokich warstw jako samowystarczalny system wiedzy. Stopniowo doszło do powstania i rozwinięcia systematyzowanej koncepcji tzw. „ruskiego mira”, dominującej obecnie we wszystkich sferach rosyjskiego życia publicznego. Głównymi elementami tej doktryny są pragnienie odrodzenia byłej geopolitycznej wielkości Rosji i wypełnienie niejakej eurazjatyckiej „cywilizacyjnej” misji. „Potrzeba” przywrócenia statusu mocarstwa, które uczestniczyłoby w procesach kształtowania zasad porządku światowego, wynika z istnienia wymyślonej osobnej „wielkiej rosyjskiej cywilizacji”, do której oprócz właściwie państwa rosyjskiego włącza się „ruski mir” przez który rozumiano sieć ludzi i społeczności poza granicami Rosji w ten czy inny sposób włączonych w rosyjską przestrzeń kulturową i językową. Utrzymanie politycznej kontroli nad Ukrainą jest uważane za niezbędny warunek istnienia i rozwoju Rosji jako mocarstwa i stanowi kluczowe zagadnienie jej polityki zagranicznej. Na pewną ciągłość w działaniach Rosji wskazuje także Marek Menkiszak: „Dla dużej części rosyjskiej elity Ukraina nie jest zagranicą w ścisłym sensie tego słowa, lecz częścią jednolitej rosyjskiej przestrzeni polityczno-kulturowej. Jest ona najważniejszym, po Rosji, państwem obszaru postradzieckiego, uznawanego przez Moskwę za naturalną strefę wpływów, co stanowi symbol i podstawę rosyjskiej mocarstwowości. Utrzymanie Ukrainy w tej strefie było i pozostaje strategicznym, priorytetowym celem rosyjskiej polityki zagranicznej. Cel ten był realizowany głównie poprzez kolejne projekty gospodarczej i politycznej reintegracji części obszaru postradzieckiego, z których najnowszym jest Unia Celna, mająca formalnie przekształcić się w 2015 roku w Unię Eurazjatycką. Unia ta jest osobistym, priorytetowym projektem prezydenta Władimira Putina, a udział Ukrainy w niej – nieodzownym warunkiem jego powodzenia” (Menkiszak, 2014).

Rosyjski dyskurs polityczny reprezentuje sobą wielopoziomowy, samowystarczalny system wiedzy, w którym język, władza, ideologia, literatura, religia, mity narodowe i archaiczne kompleksy kulturowe przeplatają się ze sobą i tworzą integralną całość. Każdy z wymienionych elementów sprawia istotny wpływ na formowanie dzisiejszej polityki zagranicznej Federacji Rosyjskiej. Ze względu na tak skomplikowaną strukturę „rosyjskiej matryoszki”, podczas badań rosyjskiej politycznej rzeczywistości prawdziwym wyzwaniem staje wybór metodologicznego podejścia. Jakościowa naukowa analiza rosyjskich działań na arenie międzynarodowej powinna nie tylko obejmować większość składników rosyjskiego systemu politycznego, ale i wyjaśniać relacje między nimi. Oferowane ramy teoretyczne obejmują kilka koncepcji:

1) teorię języka w szerokim jej rozumieniu, która pomaga wyjaśnić, w jaki sposób kulturowo-historyczny dyskurs wpływa na politykę zagraniczną Rosji. Osadza jego analizę w kontekście języka;

2) teorię analizy dyskursu, która ujawnia szczegóły funkcjonowania „anty Zachodniej” i „ukraińskiej” narracji w kulturze rosyjskiej;

3) postmodernistyczną teorię postkolonializmu, która pozwala zrozumieć kulturowo-historek kontekst stosunku Rosjan do Zachodu, w tym Ukrainy i mechanizmów pojawienia się mitów i błędnych założeń w masowej i elitarnej kulturze;

4) teorię narracji strategicznych, która umożliwia analizę działań Rosji w kontekście jej polityki ukraińskiej na trzech poziomach: 1) narracje systemowe (system narratives); 2) narracje tożsamościowe (identity narratives); 3) narracje tematyczne (policy narratives).

2. Teoria języka

Język jest unikatowym narzędziem człowieka, służącym do komunikowania i pojmowania rzeczywistości. Język odzwierciedla nasze postrzeganie zewnętrznego świata, które z kolei wpływa na kształtowanie naszych reakcji na innych ludzi, wydarzeń i pomysłów. Język występuje narzędziem do organizowania ludzkich myśli i w tym sensie staje się środkiem, za pomocą którego kształtujemy rzeczywistość i przekazujemy nasze postrzeganie rzeczywistości innym.

Podobnie jak starożytni kiedyś poznawali rzeczywistość za pomocą zaklęć i rytuałów, tak współczesne Rosjanie strukturalizują otaczającą rzeczywistość polityczną przez pryzmat negatywnie nacechowanych wyrazów. Tak, etnonim *Ukraińcy* w języku rosyjskim reprezentowany jest przez synonimiczną serię obraźliwych egzonimów: *małorosy*, *młodsze bracia*, *bandery*, *samoistijnyky* (zwolennicy niepodległości), *salojedy* (zjadacze słoniny), *ukry*, *mazepincy*, *ukropy* i inne. A najbardziej rozpowszechnionym terminem dla określenia Ukraińców wśród Rosjan jest pogardliwe słowo *chachly*. Pochodzące terminy *Chochliandia*, *Chochlostan* są używane dla określenia Ukrainy. W taki sposób polityczne zjawiska i zdarzenia wpasowują się w stabilne formuły werbalne, za pośrednictwem których sprowadzają się do konwencjonalnych pojęć o zmienionym znaczeniu. Takie formuły łatwo zapuszczają korzenie w masowej świadomości za pomocą stereotypowych nominacji i stają się przedmiotem wiary, a nie zrozumienia (*Klushina, 2015*). Bardzo trafnie ujął to rumuńsko-francuski filozof Emil Cioran (*Cioran, 2021*), twierdząc, że „człowiek mieszka nie w kraju, tylko w języku. Ojczyzna to właśnie język, nic innego”. Z kolei Edward Sapir, jeden ze współautorów lingwistycznej teorii, która zakłada, że konkretny używany przez człowieka język wpływa na sposób jego myślenia o rzeczywistości, tak o tym pisze: „Język jest przewodnikiem po „rzeczywistości społecznej” (...) potężnie warunkuje nasze myślenie o problemach i procesach społecznych. Wbrew pozorom ludzkie istoty nie żyją samotnie ani w świecie obiektywnym, ani w świecie aktywności społecznej, lecz w dużej mierze są uzależnione od konkretnego języka, który stał się środkiem wyrazu w ich społeczeństwie. Przekonanie o tym, że dostosowanie się do rzeczywistości zasadniczo bez użycia języka jest możliwe, a sam język jest jedynie przypadkowym sposobem rozwiązania określonych problemów komunikacji lub refleksji jest sporym złudzeniem... Widzimy i słyszymy, a poza tym doświadczamy [rzeczywistość] w znacznej mierze w taki a nie inny sposób, ponieważ nawyki językowe naszej społeczności predysponują pewne wybory interpretacyjne” (*Mandelbaum, 1949:160-166*). A jego uczeń i kolega Benjamin Lee Whorf uważał, że każdy język przekazuje użytkownikom prefabrykowaną wersję świata: „Język nie jest jedynie narzędziem do wygłaszania pomysłów, lecz sam jest kreatorem pomysłów, programem i przewodnikiem aktywności umysłowej jednostki, analizy jej wrażeń, syntezy zasobów umysłowych którymi dysponuje... świat ukazuje się w kalejdoskopowym strumieniu

wrażień, które muszą być zorganizowane poprzez nasze umysły, czyli poprzez systemy językowe w naszych umysłach” (*Whorf & Carroll, 1984:207*). Wybitny polski semitolog, językoznawca i filozof Bronisław Malinowski uważał, że język jest zjawiskiem kulturowym, rodzajem ludzkiego zachowania, którego nie da się wyjaśnić bez ciągłego odnoszenia do szerokich kontekstów słownej wypowiedzi: „Wydaje mi się, że dla językoznawstwa bardzo przydatne jest rozszerzenie pojęcia kontekstu, aby obejmował on nie tylko wypowiedziane słowa, ale także mimikę, gesty, ruchy ciała, całą grupę osób obecnych podczas dialogu i część środowiska, w którym się znajdują” (*Malinowski, 1935:22*). Innymi słowy, polityka jest „językiem w kontekście”, a kontekstualizacja i dokładny opis sytuacji, w której teksty są tworzone i używane powinni być niezbędnym elementem ich analizy. Mówiąc prościej, nie może istnieć dyskurs polityczny poza kontekstem politycznym i bez wsparcia językowego i dlatego język odgrywa decydującą rolę w procesie analizy politycznej. W praktyce społeczno-politycznej kontekst rzeczywistości kulturowej często sprowadza się do kontekstu wypowiedzi. Na przykład, wielu rosyjskich ideologów i propagandystów błędnie uważają całą rosyjskojęzyczną populację krajów byłego ZSRR za wyraźnych lub utajonych zwolenników nowoczesnej polityki Kremla. Z kolei Alfred Korzybski uważał, że system wiedzy, poza którym nie może istnieć jednostka, reprezentuje złożoną całość skoordynowanych doktryn. Z nich wynikają metodologiczne reguły i zasady postępowania, kreujące system, w którym działamy i żyjemy. Każdy taki system obejmuje ogromną liczbę założeń, przesłanek, mitów i hipotez, które zasadniczo nie są oczywiste, lecz działają nieświadomie w rzeczywistości psychiki kolektywnej. Jako takie, są one niezwykle niebezpieczne, ponieważ gdyby zdarzyło się, że niektóre z tych nieświadomych założeń są niezgodne z faktami i obiektywną rzeczywistością, cała nasza orientacja życiowa zostałaby dotknięta przez te nieświadome złudzenia, z nieuniknionym skutkiem szkodliwych postaw i nieumiejętności dostosowania się do standardów zachowania uznawanych jako norma przez inne społeczeństwa. Każdy taki system jest wyrażony w jakimś języku o pewnej strukturze i w naturalny sposób występuje w tekstach, które z kolei opierają się na sieci nieświadomych założeń (*Korzybski, 1994:22*).

Jednym z kluczowych pytań, na które teoria lingwistyczna nie daje wciąż oczywistej odpowiedzi, jest to, w jaki dokładnie sposób neo-imperialistyczny dyskurs dociera do samej głębi duszy przeciętnego Rosjanina i włącza się w jego codzienne działania oraz postawy i praktyki językowe? Aby odzyskać odpowiedź należy zwrócić się do analizy dyskursu.

3. Teoria dyskursu

Dyskurs staje się coraz bardziej szeroko rozpowszechnionym terminem w środowisku naukowców, socjologów a także różnego rodzaju analityków politycznych, zajmujących się dyscypliną stosunków międzynarodowych. Rola dyskursywnego przetwarzania i wytwarzania rzeczywistości jest coraz bardziej dostrzegalna i coraz mniej dyskusyjna, a badania polityki za pomocą metody analizy dyskursu oferują kryteria adekwatności, które nie są jedynie obserwacyjne i opisowe, ale i w dużej mierze wyjaśniające. Pojęcie dyskursu politycznego może na wiele sposobów odnosić się do różnych rodzajów wypowiedzi lub tekstu. Dyskurs może obejmować zarówno polityczne przemówienie, debatę, wywiad czy dokument. Może on również występować we wszelkich gatunkach wypowiedzi lub tekstów, które dotyczą tematu polityki albo są w jakiś sposób politycznie umotywowane. Polityka i dyskurs są ze sobą nierozzerwalnie związane. Interakcja polityczna wymaga struktur językowych, a zachowanie językowe z konieczności wymaga struktur dominacji i legitymizacji i w tym sensie wszelki dyskurs ma charakter polityczny.

Anna Holzscheiter (2014) uważa, że dyskurs jest przestrzenią, w której ludzie zdają sobie sprawę z tego, czym jest materialny świat, gdzie oni definiują świat i gdzie manifestują się ich przedstawienia o nim. Istnienie świata materialnego poza dyskursem nie jest zatem negowane, natychmiast odrzucone jest założenie, że jesteśmy w stanie odnosić się do materialnego świata bez dyskursu. Dyskurs można zatem zdefiniować jako pewną przestrzeń, w której intersubiektywne znaczenie zostaje stworzone, podtrzymywane, przekształcane celem stawania się integralną częścią rzeczywistości społecznej. Dyskursywne badania dążą do postrzegania społecznych i politycznych skutków wynikających z użycia określonego słownictwa, a także do rozumienia produktywnego wpływu poszczególnych konstrukcji rzeczywistości na zachowanie i tożsamość jednostek i grup. W ten sposób każda wypowiedź lub tworzenie pisanego tekstu stają się częścią większego procesu społecznego i politycznego i mogą być rozumiane jako tekst w kontekście społecznym. Zasadniczo analiza dyskursu jest zaangażowaniem w znaczenie oraz w procesy językowe i komunikacyjne, przez które budowana jest rzeczywistość społeczna. Holenderski badacz Teun van Dijk, który jest jednym z głównych reprezentantów teorii dyskursu w polityce, definiuje analizę dyskursu jako „rodzaj analitycznego badania... , który rozpatruje, w jaki sposób nadużycia społecznej władzy, dominacja i nierówności są ustanawiane, reprodukowane i odbierane w mowie i piśmie, w treściach społecznych i politycznych” (Dijk, 2001). Z kolei Norman Fairclough (1995:43) opisuje krytyczną analizę dyskursu jako metodę która „dąży do systematycznego badania ukrytych relacji przyczynowości, zachodzących pomiędzy (a) tekstami, zdarzeniami i praktykami dyskursywnymi oraz (b) szerszymi strukturami, relacjami i procesami społecznymi i kulturowymi”.

Przykładem kształtującej roli polityczno-kulturowego dyskursu w ramach którego funkcjonuje konkretny polityk służy słynne „Krymskie przemówienie” Putina 18 marca 2014 roku. Ten tekst jest kwintesencją rosyjskiego neo-imperialistycznego dyskursu. Główną cechą wypowiedzi jest niezwykle wyraźne uwidacznianie się współczesnej rosyjskiej narracji społeczno-politycznej. Jest to swoisty kulturowy koncentrat, w którym wymieszały się narodowe mity, uprzedzenia, lęki i błędne wypowiedzi na temat relacji ze światem zewnętrznym, a zwłaszcza z Ukrainą. Putin (2014) dokładnie opisał swoje wewnętrzne uczucia, wprost wymienił „winowajców”, określił swoją wizję przeszłości i przyszłości. Doświadczenia i pomysły teraźniejszych rosyjskich przywódców oraz elity intelektualnej wyraźnie pokazują uzależnienie od ustalonego w rosyjskim dyskursie politycznym przekonania o posiadaniu „prawa” do decydowania losów Ukrainy. Taka świadomość została wyprodukowana przez pokolenia rosyjskich polityków, pisarzy, naukowców i duchownych, które wytworzyły obraz Ukrainy będącej raczej składnikiem „rosyjskiego świata” niż społeczeństwem z własną kulturą, funkcjonującym na własnych warunkach. Tak ścisłe połączenie systemu wiedzy i tekstów produkowanych wewnątrz tego systemu pozwala nam wyróżniać poszczególne cechy rosyjskiego dyskursu społeczno-politycznego. Jak trafnie zauważył Foucault: „Doktryna wiąże jednostki z określonymi typami wypowiedzi i w konsekwencji zakazuje im wszystkich innych... Doktryna dokonuje podwójnego ujarznienia, podporządkowuje podmioty mówiące dyskursom, natomiast dyskursy – co najmniej wirtualnym grupom mówiących jednostek” (Dominiak, 2005).

4. Post-kolonializm i postmodernizm

Rozwój studiów postkolonialnych rozpoczął się po drugiej wojnie światowej, gdy kolonializm w znacznym stopniu wyczerpał się historycznie. Niektórzy naukowcy wskazują, że nurt badań postkolonialnych narodził się wraz z publikacją artykułu *Les Damnés de la*

terre Frantza Fanona w 1961 na fali buntu wobec imperialnej przemocy, w okresie walk o suwerenność Algierii (*Patryga, 2002:6-7*). Fanon demaskował praktyki stosowane przez mocarstwa imperialne do zdobycia kolonii, uzasadnienia podboju i utrzymania władzy nad nimi. Przetwarzanie obcej tożsamości i konstruowanie jej fałszywego obrazu w imię wyższych racyj lub z pozycji „wiedzącego z góry” można obserwować na różnych poziomach kontaktów społecznych i politycznych. Gdy dotyka to dużych wspólnot, całych narodów, ludności zamieszkującej na określonym terytorium i działającej w jedynym paradygmacie kulturowym, mamy do czynienia z kolonializmem, choćby przemoc polityczna, ekonomiczna czy intelektualna przybierała formy zakamuflowane. Natalia Jakowenko (*2007*) trafnie zauważa wzrastającą rolę postmodernistycznej tekstualizacji historii „innego” w swojej książce *Wprowadzenie do historii*: „Pożyczone z postmodernizmu postrzeganie dowolnego źródła jako tekstu z własną logiką wewnętrzną przydało się historykom i popchnęło ich do szczegółowego badania kontekstu powstania i funkcjonowania materiału źródłowego i historiograficznego – jego języka, umiejętności kulturowych i pozycji autora, okoliczności napisania itd.”. Roman Tokarczyk (*2009:145*) z kolei zwraca uwagę na sposób w jaki postmodernizm poddaje transformacji relację języka ze światem, dekonstruując wszelkie twierdzenia uznające uniwersalne wartości, podważając metafizyczne założenia wartości, kwestionując naukowy obiektywizm i odrzucając kult rozumu i wiarę w postęp. Wizja dyskursu post-kolonialnego, podkreślająca element dominacji i podporządkowania się, pozwoliła na teoretyczne uchwycenie, przeanalizowanie i opisanie wielkiej liczby socjalnych i kulturowych interakcji objętych wspólnym pojęciem kolonizacji. Doprowadziło to do pojawienia się nowej narracyjnej filozofii historii i dało impuls do rozpoczęcia ery postmodernizmu w naukach historycznych. Postmoderniści zaproponowali kilka ważnych idei:

- 1) obraz rzeczywistości niesie informacje nie o samej rzeczywistości, lecz tylko o jej percepcji w określonej przestrzeni kulturowej i historycznej;
- 2) wiedza historyczna daje przede wszystkim informację o stanie świadomości tego, kto postrzega i interpretuje rzeczywistość, a nie o samej rzeczywistości;
- 3) tekst historyczny jest nie tyle przedstawieniem przeszłości, ile reprezentacją wizerunku przeszłości skonstruowanej przez jednostkę na podstawie źródeł historycznych i własnych przemyśleń. Pojawiła się słynna formuła Jacques’a Derridy „że nie ma nic poza tekstem”, oznaczająca, że to właśnie sam tekst kreuje znaczenie;
- 4) dzieło historyka jest podobne do dzieła pisarza, bez zastrzeżeń do obiektywizmu i statusu naukowego;
- 5) historie stają się sztuką lub grą intelektualną (*Pomorski, 2005:34*).

Polityka postmodernistyczna odrzuca autorytet rozsądku i uznaje wszystkie odwołania do „obiektywnej prawdy” za niebezpieczne. Odpowiednio, aktorzy polityczni, działający w paradygmacie postmodernizmu uważają, iż prawda ma naturę polityczną i może być raczej „stworzona” sztucznie niż odkryta racjonalnie i obiektywnie.

Stosując rozumienie dyskursu jako władzy z postmodernizmem w tle, badacze studiów postkolonialnych opracowali nową metodę poznania nie tylko wobec ogólnej historii kolonializmu, ale także do postrzegania postkolonialnej nowoczesności poszczególnych państw, krajów i narodów. Koncepcje tą wykorzystał Edward Said (*1991*) w swojej słynnej pracy *Orientalizm*, która doprowadziła do radykalnych zmian w zakresie badań porównawczych w politologii, literaturze i kulturologii. W swej książce Said krytycznie ocenił zachodnie koncepcje na temat Orientu, dzięki którym orientalistyczny dyskurs legitymizował kolonialną agresję oraz polityczną i kulturalną wyższość Zachodu. Edward Said przeprowadził analizę tekstów literackich i pokazał, w jaki sposób zachodni pisarze reprezentowali Wschód. W ich

pracach wiedza o Wschodzie kształtowała się w oderwaniu od rzeczywistości i była oparta na kulturowych stereotypach i uprzedzeniach. Społeczeństwa wschodnie nie były traktowane jak nieruchomy obiekt badań naturalnych, lecz raczej jako egzotyczne źródło dla inspiracji twórczej. Całe pokolenia intelektualistów, artystów, pisarzy i orientalistów, wytworzyły własny, zachodni wizerunek Wschodu. Dyskurs *orientalistyczny* miał sprzyjać powstawaniu hegemonicznej historiografii, czyli zestawu narracji historycznych przedstawiających wydarzenia wyłącznie z punktu widzenia świata zachodniego. Zdaniem Saida (1991) orientalizm był „produktem pewnych sił i działań politycznych... szkołą interpretacji, której materiałem – dość przypadkowo – stał się Orient; jego cywilizacje, narody, ziemie. Obiektywne osiągnięcia orientalizmu – dzieła niezliczonych oddanych badaczy, którzy wydawali teksty oryginalne i tłumaczyli je, kodyfikowali gramatykę, układali słowniki, rekonstruowali zamierzone epoki, produkowali sprawdzalną (według kryteriów pozytywistycznych) wiedzę...”. W sensie ogólnym pojęcie orientalizmu można uznać za światopogląd, sposób myślenia, system poglądów Europejczyków na świat i społeczeństwa, które znajdowały się w sferze wpływów kolonialnych europejskich państw metropolitalnych. W tym kontekście ważną wydaje się kolejna myśl amerykańsko-palestyńskiego badacza: „...w świadomości Zachodu słowo Orient obrosło bogatymi znaczeniami, skojarzeniami i konotacjami, które niekoniecznie odnoszą się do prawdziwego Orientu, ale do powstałego wokół niego pola językowego” (Said, 1991:298).

Rozwój tego kierunku badań doprowadził do uelastyczenia paradygmatu postkolonialnego, którego starano się przykładać do coraz nowych okoliczności historycznych i geograficznych, wykraczających poza „standardową” sytuację kolonialną charakteryzującą się istnieniem morskiego dystansu przestrzennego między (zachodnioeuropejską) metropolią a jej terytoriami zależnymi (np. Indie dla Brytanii albo Algieria dla Francji). Mimo faktu, że większość teoretyków kolonializmu rzadko wspomina o Rosji jako o kraju jeszcze do niedawna przejrzystym imperialnym, w środowisku akademickim słychać głosy, odnotowujące skuteczność stosowania modelu Saidowskiego *orientalizmu* w kontekście rosyjskim, gdzie Rosja jest rozpatrywana jako źródło orientalistycznych sposobów myślenia (Fox-David et al, 2006; Thompson, 2000; Yevtukhov et al, 2001). Tak na przykład, szeroko dyskutowanym przykładem rozwoju koncepcji *orientalizmu* na gruncie postkomunistycznym stała książka Ewy Thompson *Trubadurzy imperium* (2000), opisująca Rosję i jej euroazjatycką ekspansję w kategoriach postkolonialnych. W swojej pracy amerykańska badaczka gruntownie przeanalizowała kolonializm radziecki wobec narodów kaukaskich i krajów Europy Środkowo-Wschodniej, określiła rosyjski nacjonalizm jako agresywny i defensywny, a literaturę rosyjską kwalifikowała jako sposób rozpowszechniania podbojów imperialnych. Rozwijając tą myśl, Adeeb Khalid (2000) słusznie zauważył, że „*Orientalizm* jest rzeczywiście istotny dla zrozumienia nie tylko stosunku Rosji do jej imperium, ale i samej Rosji”. Z kolei bułgarska historyk Maria Todorova (2000) w *Orientalizmie* Saida znajduje skuteczną możliwość metodologicznego podejścia do historycznej specyfiki Rosji i jej wyobrażonej unikatowości: „Dla Khalida jest to [Orientalizm] przydatne narzędzie wśród wielu innych, (pozwalające) rozwinąć lepsze zrozumienie Rosji zarówno w relacjach ze światem zewnętrznym, jak i z jej imperium. (...) Dla Khalida praca Saida jest wnikliwą krytyką tego, w jaki sposób władza wykorzystuje wiedzę aby się rozwijać, i uważa Saida raczej za inspirację niż modelowego konstruktora. Całkowicie zgadzam się z tym podejściem”.

Dla potrzeb określenia rosyjskiego post-kolonialnego dyskursu wobec Ukrainy została nawet przyjęta osobna definicja naukowa – *rosyjski ukrainalizm*, który można określić jako zbiór teorii i praktyk zaszczerpiony w rosyjskiej świadomości jako samowystarczalny system wiedzy na temat Ukrainy, który tworzył się w trakcie politycznej i ekonomicznej hegemonii

Rosji nad Ukrainą. Ten system wiedzy nie tylko zapewnia rosyjską kulturę ogólną błędnymi stwierdzeniami, ale i doprowadza do podjęcia takich katastrofalnych politycznych decyzji jak aneksja Krymu (*Shevko, 2018*). Uważam, że współczesny postmodernistyczny wymiar teorii postkolonializmu jest bardzo skutecznym narzędziem postrzegania i analizy rosyjskiej zewnętrznej polityki.

5. Teoria narracji strategicznych

Tworzenie i przekazywanie uproszczonych strukturalnie opowieści o codziennych wydarzeniach i o „właściwym” postrzeganiu otaczającego nas świata było i pozostaje integralną częścią procesu poznawania i interpretacji rzeczywistości przez człowieka. Narrator decyduje samodzielnie o treści przekazu, jakie aspekty i zdarzenia należy w nim zawrzeć i jak je przedstawić. Francuski filozof Tsvetan Todorov (*1977:45*) uważał, że w życiu codziennym ludzie myślą, postrzegają i dokonują wyborów moralnych według struktur narracyjnych. Narracje zapewniają spójność chaotycznym przepływowi informacji, harmonizując procesy argumentacji i percepcji. Oni tworzą pewną formę, która pozwala ludziom łączyć niepowiązane wcześniej zjawiska. W stosunkach międzynarodowych proces ten odbywa się wokół pewnej transformacji przyczynowej, takiej jak przejście od pokoju do wojny. Ważną rolę odgrywa ostateczny cel tej transformacji, który nadaje wspólne znaczenie wszystkim elementom narracji i racjonalizuje je (*Todorov, 1977:45*). W ten sposób nadaje się znaczenie różnym politycznym wydarzeniom. Z kolei, narracje zbiorowe tworzą sensy wspólne dla większości członków określonej grupy społecznej. Podobne rozumienie świata pomaga każdej jednostce interpretować własne działania i działania innych w kategoriach wspólnie przyjętych wartości, norm moralnych i kontekstów społecznych. Oznacza to, że jeśli członkowie grupy docelowej są przekonani, że bieżące wydarzenia historyczne są osadzone w określonej narracji lub jeśli postrzegają je z punktu widzenia tej narracji, to ich zachowanie staje się przewidywalne. W taki sposób następuje połączenie interesów i wartości.

Kolejną teorią, która odgrywa kluczową rolę w zrozumieniu rosyjskiej polityki wobec Ukrainy jest koncepcja narracji strategicznych, sformułowana i rozwinięta głównie w pracach Lawrence'a Freedmana, Alisona Miskimmona, Bena O'Loughlina, Laurę Rosell. Podczas realizacji stosunków międzynarodowych w praktyce, państwa budują swoje narracje opierając na fakty historyczne (prawdziwe lub fikcyjne) i na pewne idee, które można wpisać w kontekst konkretnej sytuacji politycznej. Narracje budowane na schematach heroizmu, wielkości narodowej, czy zagrożenia egzystencjalnego pomagają elitom politycznym usuwać z pola widzenia publicznego niekorzystne dla siebie wydarzenia i informacji. Właśnie z tego powodu są oni skutecznym narzędziem oddziaływania w polityce międzynarodowej (*Antoniades et al., 2010:26*). Przykładem takiego politycznego nadużycia służy rosyjska narracja „oblężonej twierdzy”. Mimo konsekwentnego obniżania poziomu życia i gromadzenia problemów społecznych, większość Rosjan nie dostrzega związku między taką sytuacją a polityką rządu, który skutecznie przerzuca odpowiedzialność za niedoskonały stan gospodarki na Zachód.

Lawrence Freedman (*2006*), czołowy brytyjski ekspert w dziedzinie stosunków międzynarodowych, który wprowadził termin narracja strategiczna do użytku akademickiego, twierdzi, że „narracje powstają lub formują się w celu uporządkowania reakcji innych (aktorów) na rozwój wydarzeń. Są strategicznymi, ponieważ nie powstają spontanicznie, lecz celowo tworzone”. Narracje mogą być wykorzystywane do konstruowania nowych lub harmonizowania istniejących tożsamości zbiorowych i ustanawiania wspólnych dla wszystkich członków grupy docelowej normatywnych granic. Ponadto, narracja nie musi być oparta na dowodach

lub faktach, aby być skuteczną. Wpływowość narracji strategicznych mierzy się stopniem, w jakim oni rezonują z głównymi społeczno-kulturowymi wartościami grupy docelowej, umiejętnością wzbudzania emocji z jednoczesnym stwarzaniem pozornych związków przyczynowych (*Freedman, 2006*). Uderzającym przykładem jest słynna rosyjska narracja o „ucisku rosyjskojęzycznych na Ukrainie”. Propaganda państwowa przekonała większość swoich obywateli, że „cierpienie” ludności południowo-wschodniej Ukrainy jest bezpośrednią konsekwencją działań „faszystowskiej junty w Kijowie”. Ten przyczynowo-skutkowy związek, mimo swojej sztuczności, prowadzi do ukształtowania się stabilnej tożsamości zbiorowej, wartości której wykluczają możliwość istnienia innej „prawdy”. Skutkiem tego władze rosyjskie uzasadniają okupację części terytorium Ukrainy względami humanitarnymi, nie napotykając nawet na minimalny opór mieszkańców Rosji.

Znany teoretyk narracji strategicznych Alister Miskimmon et al (*2017*) wyodrębnia trzy ich poziomy. Po pierwsze, narracje systemowe (system narratives) opisują sposób organizacji systemu międzynarodowego i podstawy jego funkcjonowania, wymieniają kluczowych graczy, główne trendy, a także istotne konflikty i kryzysy w polityce światowej. Po drugie, narracje tożsamościowe (identity narratives) opisują podstawowe wartości i cechy, wyznaczające wyjątkowość konkretnego społeczeństwa i tworzą rdzeń znaczeniowy jego pozycjonowania na arenie międzynarodowej. Narracje tego typu ujawniają treść kursu politycznego, a także metody i technologie wykorzystywane do osiągania celów strategicznych. Formułują wartości i cele aktorów politycznych, a także przedstawienia polityków o słuszności pewnych działań w stosunkach międzynarodowych. Tożsamość aktorów międzynarodowych jest nieustannie kwestionowana przez ich przeciwników i może się zmieniać z czasem. Po trzecie, narracje tematyczne (policy narratives) mają na celu rozwiązanie konkretnego zagadnienia politycznego. Usprawniają działania rządu i wyjaśniają potrzebę wybrania określonej linii postępowania strategicznego dla konkretnego wyzwania. Narracje tematyczne zapewniają niezbędny kontekst dla bieżących działań politycznych, wyjaśniając, na czym polega problem, kto jest zaangażowany i w jaki sposób wybrane stanowisko polityczne doprowadzi do pozytywnego rozwiązania. Oczywiście wszystkie te typy narracji strategicznych są ze sobą nierozzerwalnie związane.

6. Podsumowanie

Znaczenie utrzymania kontroli nad Ukrainą dla Rosji zauważył jeszcze znany amerykański strateg Zbigniew Brzezinski, uważając niepodległą i silną Ukrainę za główną przeszkodę w odbudowie eurazjatyckiego imperializmu w Rosji. Główną przyczyną zbrojnej agresji Rosji na Ukrainę jest sprzeczność strukturalnych podstaw ich państwowości. Ukraina może zostać suwerenną nowoczesną demokracją jedynie pod warunkiem oddalania się od Rosji i jednoczesnej integracji euroatlantyckiej. Z kolei Rosja, politykę zagraniczną której wyznacza neo-imperialna tożsamość i cywilizacyjna konfrontacja z Zachodem, nie może pogodzić się z utratą wpływów na swego niegdyś najważniejszego satelitę. Rosyjskie elity polityczne i większość obywateli zajmuje wobec Ukrainy stanowisko patrymonialne i neguje istnienie jej odrębnej historii, kultury i tożsamości narodowej. Ukraińcy są uważani za etniczną gałąź Rosjan, a sama Ukraina jest „skazana” na pozostanie w ścisłym sojuszu zdominowanym przez Moskwę. Utrzymanie politycznej kontroli nad Ukrainą uważane jest za kluczowy warunek istnienia „wielkiej” Rosji i rozwoju „rosyjskiego świata”.

Współczesne teorie politologiczne dają możliwość nie tylko szczegółowego wyjaśnienia natury rosyjskiego reżimu, ale też prześledzenia wewnątrznie logiki jego przestępczych

działań, a nawet tendencji rozwoju w przyszłości. Nowością naukową niniejszego tekstu jest proponowanie kompleksowej koncepcji poznawczej dla interpretacji całego obszaru rosyjskiej wiedzy o Ukrainie jako osobnego zamkniętego dyskursywnego systemu, który bezpośrednio wpływa na politykę Rosji na arenie międzynarodowej i kształtuje jej złożone procesy wewnętrzne. Podejście lingwistyczne wystąpią skutecznym narzędziem do pojmowania rosyjskiej semantycznej przestrzeni i osadza analizę zewnętrzną polityki Kremla w kontekście języka. Postmodernistyczna teoria postkolonializmu pozwala zrozumieć kulturowo-historyczny kontekst stosunku Rosjan do Zachodu i Ukrainy i mechanizmów pojawienia się mitów i błędnych założeń w masowej i elitarnej kulturze. Z kolei dyskurs i narracje strategiczne są narzędziem, za pomocą którego można skutecznie dekodować kulturowo-polityczny schemat społeczeństwa rosyjskiego. Stosowane razem teorie pomagają lepiej zrozumieć rolę Rosji w podważaniu systemu międzynarodowego i przewidzieć jej zachowanie w przyszłości.

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MULTIPLE CITIZENSHIP IN UKRAINE: WILL WE OPEN THE “PANDORA’S BOX”?

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Summary

The article is devoted to study the constitutional experience of foreign states (Republics of the former USSR, which became independent states) in resolving the issue of dual citizenship. The legislation of Ukraine on citizenship and its changes during the years of independence is analyzed. The draft law “About making changes to the Law of Ukraine ”About citizenship of Ukraine“ about the bases and order of acquisition and termination of citizenship of Ukraine”, registered in the Parliament of Ukraine on December 2, 2021, under No. 6368, on the subject of the introduction of dual citizenship in Ukraine, introduced by the President of Ukraine Volodymyr Zelensky to the Supreme Rada of Ukraine is analyzed. The reasons and possible negative consequences of the introduction of dual citizenship in Ukraine are clarified. The conclusion about the inexpediency of the introduction of dual citizenship in Ukraine is made.

Keywords: citizenship, multiple citizenship, dual citizenship, Ukrainian citizenship, constitution.

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1. Introduction

President of Ukraine Volodymyr Zelensky, in his annual address to the Verkhovna Rada of Ukraine on December 1, 2021, on the internal and external situation of Ukraine, in particular, said: “An important component of our international policy is to support global Ukrainianization. I know how important the question of multiple citizenship is for Ukrainians living in the US, Canada, the EU. Today I am submitting a relevant bill to Parliament. There are 65 million of us” (*Vystup Prezydenta Volodymyra Zelenskoho, 2021*). The draft law “On Amendments to the Law of Ukraine “On Citizenship of Ukraine“ on the grounds and procedure of acquisition and termination of citizenship of Ukraine”, as an urgent bill, registered in the Verkhovna Rada of Ukraine on December 2, 2021 under No. 6368 (*Proekt Zakonu “Pro vnesennia zmin do Zakonu Ukrainy ”Pro hromadianstvo Ukrainy» shchodo pidstav i poriadku nabuttia ta pryypynennia hromadianstva Ukrainy, 2021*).

Among other things, the draft law envisages the introduction of multiple (dual) citizenship in Ukraine, although the terms “multiple citizenship” and “dual citizenship” are not used in the text of the draft law. The introduction of dual citizenship in Ukraine contradicts

not only the legislation on Ukrainian citizenship which has been in force throughout all the years of independence but also the generally accepted international practice of acquisition and termination of citizenship.

The purpose of this article is to clarify the reasons, legal mechanisms and forecasting of consequences of the introduction of dual citizenship in Ukraine provided for by the draft law “On Amendments to the Law of Ukraine «On Citizenship of Ukraine» on the grounds and procedure for acquisition and termination of citizenship of Ukraine”. The purpose is achieved by using a comparative legal method of research consisting of a comparative analysis of the legal norms regarding dual citizenship contained in the constitutions of foreign states and the legislative acts of Ukraine.

2. Theoretical foundations of citizenship

Citizenship is acquired by birth (affiliation) – by the citizenship of parents (the principle of “right of blood”) or by territoriality (the principle of “right of land”) or by the will of the individual (naturalization). Citizenship is terminated by withdrawal from it (at the will of the individual), loss of citizenship (as a result of a person committing certain actions), or deprivation of citizenship (at the initiative of the state). While there are general grounds for the acquisition and termination of nationality, the legislation of each state has its peculiarities in this regard, despite which, as a general rule, a state tries to avoid its territory of multiple nationalities and statelessness.

The presence of multiple (usually – dual) citizenship creates a number of problems for the state and the person himself, concerning, first of all, the fulfillment by the citizen of constitutional obligations to the state, in particular the payment of taxes, military service, protection of the homeland, its independence and territorial integrity, and also generates the problem of protection of such a citizen abroad. Statelessness means the uncertainty of a person’s legal status, his legal insecurity since no state is obliged to take care of him. National legislation and international legal acts on citizenship provide a number of legal means to prevent dual citizenship (bipatrim, from lat. bis – twice and gr. patris – homeland) and statelessness (apatrim, from gr. a – negative share and patris – homeland) and to solve such problems. One such means is the enshrinement in the legislation of the principle of single citizenship, which consists in the fact that the state perceives a person with multiple (dual) citizenship only as a citizen of this state without regard to the citizenship of other states, and regardless of whether this person is on the territory of this state or outside of it. The principle of single citizenship is enshrined in the constitutions of many states.

3. Foreign constitutional experience

To get acquainted with the foreign experience of the constitutional provision of prevention of dual citizenship let’s turn to constitutions of the former USSR republics, which became independent states. The constitutional experience of these very states is especially valuable for Ukraine since while drafting their constitutions and adopting them, they took into account the world constitutional experience. Moreover, Ukraine adopted the Constitution of the last of the former Soviet republics and undoubtedly used their constitutional experience as well.

The constitutions of most of the former Soviet republics enshrine in one form or another the principle of single citizenship and do not recognize them as citizens of other states. For example:

The Constitution of Kazakhstan: “1. Citizenship of the Republic of Kazakhstan is acquired and terminated by the law, is unified and equal regardless of the grounds for its acquisition ... 3. A citizen of the Republic shall not be recognized as a citizen of another state” (Art.10) (*Okunkov, 2001: 166*); Constitution of Turkmenistan: “A citizen of Turkmenistan shall not be recognized as a citizen of another state” (Part 2, Art.7) (*Konstituciya Turkmenistana, 2016*); Constitution of Uzbekistan: “In the Republic of Uzbekistan one nationality shall be established for the entire territory of the Republic” (Part 2, Art.21) (*Konstituciya Respubliki Uzbekistan, 2014*); Constitution of the Republic of Uzbekistan: “Citizenship of the Republic of Uzbekistan shall be uniform for the entire territory of the Republic” (Part 2, Art.6) (*Konstituciya Respubliki Uzbekistan, 2014*).

The Constitutions of Georgia, Lithuania, and Tajikistan provide for dual citizenship by way of exception: “2. A citizen of Georgia may not simultaneously be a citizen of another state, except in the cases established by this paragraph. The President of Georgia may grant citizenship of Georgia to a foreign citizen who has rendered special services to Georgia or to whom the granting of Georgian citizenship proceeds from state interests” (Part 2, Art. 12 of the Constitution of Georgia) (*Konstituciya Gruzii, 2013*); “Except for private cases established by law, no one may simultaneously be a citizen of the Republic of Lithuania and another state” (Part 2, Art. 12 of the Constitution of Lithuania) (*Okunkov, 2001: 332*); “Affiliation of citizens of Tadzhikistan with citizenship of another state is not allowed, except in cases stipulated by law and international treaties of Tadzhikistan” (Part 2, Art. 15 of the Constitution of Tadzhikistan) (*Konstituciya Respubliki Tadzhikistan, 2016*).

Constitutions of Azerbaijan, Belarus, Estonia, Latvia, Moldova do not contain provisions on dual citizenship.

The possibility of dual citizenship is provided for only by the constitutions of Armenia, Kyrgyzstan, and Russia: “4. The rights and obligations of dual citizenship holders shall be established by law” (Part 4, Art. 30 of the Constitution of Armenia) (*Okunkov, 2001: 332*); “...Persons who are citizens of the Kyrgyz Republic shall be recognized as belonging to the citizenship of another state by the law and international treaties to which the Kyrgyz Republic is a party” (Part 2, Art. 50 of the Constitution of Kyrgyzstan) (*Konstituciya Kyrgyzskoj Respubliki, 2016*).

The Russian Constitution enshrines the principle of one citizenship: “1. Citizenship of the Russian Federation is acquired and terminated by federal law, is unified and equal regardless of the grounds of acquisition” (Part 1, Art. 6) And immediately suggests the possibility of dual citizenship: “1. A citizen of the Russian Federation may have citizenship of a foreign state (dual citizenship) by federal law or an international treaty of the Russian Federation” (Part I Art. 62) (*Konstituciya Rossijskoj Federacii, 2020*).

At the constitutional level, therefore, out of 14 former Soviet republics only three states (Armenia, Kyrgyzstan, Russia) assume the possibility of dual citizenship, three states (Georgia, Lithuania, Tajikistan) assume it as an exception, i.e., we are talking about the individual, single cases of dual citizenship. Similarly – by not allowing dual citizenship or allowing it as an exception – the issue of dual citizenship is solved in most states of the world. Until recently, this was also characteristic of Ukraine.

4. In line with global trends

Citizenship of Ukraine was proclaimed by the Declaration of State Sovereignty of Ukraine on July 16, 1990: “The Ukrainian SSR has its own citizenship and guarantees every citizen the right to retain the citizenship of the USSR” (Part I, Part IV) (*Deklaratsiia, 1997*).

The First Law of Ukraine “On Citizenship of Ukraine” was adopted by the Supreme Council of the RSFSR on October 8, 1991, it entered into force from the moment of its publication on November 13, 1991, subsequently, it was amended repeatedly (*Zakon Ukrainy “Pro hromadianstvo Ukrainy”, 1991*). The law, in particular, established that “There is a single citizenship in Ukraine” (Art. 1). According to the Law “Citizens of Ukraine are: 1) all citizens of the former USSR, who at the moment of the proclamation of Ukraine’s independence (August 24, 1991) resided permanently on the territory of Ukraine; 2) persons, who at the moment of entry into force of the Law of Ukraine ”On Citizenship of Ukraine“ (November 13, 1991) resided permanently in Ukraine ... and are not citizens of other states; 3) persons born or permanently residing on the territory of Ukraine as well as their descendants (children, grandchildren), if they as of November 13, 1991, resided outside Ukraine, are not citizens of other states and until December 31, 2004, submitted by the procedure established by this Law an application for determination of their citizenship of Ukraine” (Art. 2). The wording “not being citizens of other states” (cl. 2) and “not being citizens of other states” (cl. 3) in this article unambiguously means prevention of dual citizenship in Ukraine.

Provisions to prevent dual citizenship in Ukraine are contained in a number of other articles of the law. Thus, Art. 16 stipulates that “Foreigners and stateless persons may be granted Ukrainian citizenship upon their application. The conditions for admission to Ukrainian citizenship are: ...2) non-residence in foreign citizenship...” (Part 1,2), Art. 20 establishes that “Ukrainian citizenship shall be lost: 1) if a citizen of Ukraine acquired citizenship of another state...”.

Similar provisions on single citizenship, acquisition, and loss of citizenship of Ukraine are contained in the new Law of Ukraine “On Citizenship of Ukraine” of January 18, 2001, No. 2235-III (*Zakon Ukrainy “Pro hromadianstvo Ukrainy”, 2001*). The Law has already been adopted based on the relevant provisions of the new Constitution of Ukraine, which, in particular, established that “In Ukraine, there is a single citizenship. The grounds for acquisition and termination of citizenship of Ukraine shall be determined by law” (Art. 4) (*Konstytutsiia Ukrainy, 2020*).

The constitutional provision on the existence of single citizenship in Ukraine is sometimes perceived as a ban on dual citizenship in Ukraine, although it is not such a ban per se. The content of the constitutional concept of single citizenship is revealed in the new Law of Ukraine “On Citizenship of Ukraine”. Defining the principles of Ukrainian legislation on citizenship, the law established that Ukrainian legislation on citizenship is based on the following principles 1) single citizenship – citizenship of the State of Ukraine, which excludes the possibility of the existence of citizenship of administrative-territorial units of Ukraine. If a citizen of Ukraine acquired citizenship (nationality) of another state or states, in legal relations with Ukraine he/she is recognized only as a citizen of Ukraine. If a foreigner acquired Ukrainian citizenship, in legal relations with Ukraine he is recognized only as a citizen of Ukraine...” (Art. 2).

The Law contains a number of reservations to prevent cases of dual citizenship. Thus, Art. 7 provides for various cases of acquisition of Ukrainian citizenship by a person born outside Ukraine or on the territory of Ukraine only if she did not acquire citizenship of another state by birth. Article 8 provides for various cases of acquisition of citizenship of Ukraine by a person by territorial origin only in case of commitment to terminate foreign citizenship only after termination of foreign citizenship or when a declaration of renunciation of foreign citizenship is submitted (if a person for reasons independent of him/her cannot obtain a document terminating foreign citizenship or if he/she is granted refugee status in Ukraine or asylum in Ukraine). Especially important is the provision of this article that “a person who acquired Ukrainian

citizenship and submitted a declaration of renunciation of foreign citizenship is obliged to return the passport of a foreign state to the authorized bodies of that state” (part 8).

Article 9 stipulates that “A foreigner or a stateless person may be granted Ukrainian citizenship upon their application” (Part 1); “The conditions for granting Ukrainian citizenship are: ...2) the obligation to cease foreign citizenship or not to be a foreign citizen” (Part 2). Article 19 provides that “Citizenship of Ukraine shall be lost: 1) if a citizen of Ukraine, after reaching the age of majority, voluntarily acquired the citizenship of another state ...; 2) if a foreigner acquired the citizenship of Ukraine and did not submit ... document on termination of foreign citizenship or declaration of renunciation of foreign citizenship...” (Part 1).

The norm of the Law of Ukraine “On Citizenship of Ukraine” on the loss of citizenship of Ukraine in the case of voluntary acquisition by a citizen of Ukraine the citizenship of another state fully complies with the provision of the European Convention on Nationality of November 6, 1997, which Ukraine ratified in 2006: “A State Party may not provide in its internal law for the loss of its citizenship *ex lege* or on the initiative of the State Party itself, except in such cases: a) voluntary acquisition of another citizenship” (Art. 7) (*Yevropeiska konventsiiia, 2006*). However, the Convention leaves it to the States Parties to decide whether a person retains or loses his nationality in such a case (Art. 15).

The current Ukrainian legislation on Ukrainian citizenship, therefore, does not provide for the possibility of “multiple citizenship” (the term is used in the European Convention on Nationality) for Ukrainian citizens and contains reservations about the prohibition of dual citizenship in Ukraine. There are cases when a citizen of Ukraine lost his/her Ukrainian citizenship if he/she had the citizenship of a foreign state. Issues of acquisition and termination of Ukrainian citizenship will be handled somewhat differently in case of adoption of the Law of Ukraine “On Amending the Law of Ukraine «On Citizenship of Ukraine» on the grounds and procedure for the acquisition and termination of Ukrainian citizenship”.

5. Legislative changes

The draft law “On introducing amendments to the Law of Ukraine ‘On Citizenship of Ukraine’ concerning the grounds and procedure for acquiring and terminating Ukrainian citizenship” is a new version of the Law of Ukraine “On Citizenship of Ukraine” of January 18, 2001. Attention in the Draft Law is already attracted by the definition in Article 1 of certain terms, namely:

“the right to recognition as a citizen of Ukraine – a document in which a foreigner who applies for citizenship of Ukraine or his legal representative certifies that in the case of acquisition of Ukrainian citizenship in legal relations with Ukraine the person recognizes himself only as a citizen of Ukraine on the territory of Ukraine”;

“the right to renounce foreign citizenship and recognize oneself only as a citizen of Ukraine – a document certifying the renunciation of citizenship (nationality) of another state or citizenship (nationality) of other states...”;

“the right to absence of foreign citizenship – a document in which a stateless person reports the absence of foreign citizenship (nationality) with the justification of the reasons for such absence”;

“The obligation to terminate foreign citizenship is a document in which a foreigner who applies for citizenship of Ukraine, or his (her) legal representative, who is a citizen (national) of the state included by the Cabinet of Ministers of Ukraine in the list of states of migration

risk, certifies that in case of acquisition of Ukrainian citizenship he will stop the citizenship (nationality) of another state or citizenship (nationality) of other states and within two years after acquiring Ukrainian citizenship will submit the document”.

Article 2 of the bill enshrines the principle of single citizenship in the wording of the Law of Ukraine “On Citizenship of Ukraine” of January 18, 2021.

The key introduction of dual citizenship in Ukraine is Article 9, which provides that “1. A foreigner or stateless person may, upon their application, be granted Ukrainian citizenship. 2. The conditions for admission to Ukrainian citizenship are: ... 2) submission by a foreigner of a declaration of recognition as a citizen of Ukraine or an obligation to cease foreign citizenship, or a declaration of renunciation of foreign citizenship and recognition of himself only as a citizen of Ukraine, or a declaration of absence of foreign citizenship...”.

In the context of the issues of this article, such a condition for admission to Ukrainian citizenship as “submission by a foreigner of a declaration of recognition as a citizen of Ukraine” is particularly important. It does not provide for submission by a foreigner of an obligation to terminate foreign citizenship or a declaration of renunciation of foreign citizenship or a declaration of absence of foreign citizenship. A foreigner, according to the draft law – “a person who is not a citizen of Ukraine and is a citizen (national) of a foreign state (foreign states)”, who has submitted a declaration of recognition as a citizen of Ukraine (such declaration may also be submitted by his legal representative) and was admitted to Ukrainian citizenship, will remain a citizen of a foreign state (foreign states). Moreover, according to the definition given in article 1 of the draft law, such a person recognizes himself only as a citizen of Ukraine **on the territory of Ukraine**. It turns out that such a “citizen of Ukraine” in Ukraine will enjoy the rights of a citizen of Ukraine, while outside the territory of Ukraine she will have no rights in relation to him and he will have no obligations in relation to Ukraine. This provision directly contradicts the above-mentioned principle of single citizenship, according to which “If a foreigner acquired Ukrainian citizenship, then in legal relations with Ukraine he is recognized only as a citizen of Ukraine”.

Other conditions for the admission of foreigners to Ukrainian citizenship (presentation of an obligation to cease foreign citizenship or a declaration of renunciation of foreign citizenship and recognition of themselves only as citizens of Ukraine or a declaration of absence of foreign citizenship) do not in themselves mean the introduction of dual citizenship in Ukraine, although they will potentially create conditions for all kinds of manipulation and abuse in this regard.

6. Causes and consequences of bipatrim

There are several reasons for such a decision on acquiring Ukrainian citizenship and the introduction of dual citizenship in Ukraine.

First, it is the desire to simplify the conditions for acquiring Ukrainian citizenship (regarding continuous residence on the territory of Ukraine for a certain period of time, knowledge of the state language, availability of legal sources of existence, and termination of foreign citizenship), in particular, for foreigners, who in the order established by Ukrainian legislation perform (have performed) military service under the contract in the Armed Forces of Ukraine, National Guard of Ukraine, awarded with the state award of Ukraine, foreigners who have distinguished merits before Ukraine or foreigners, whose admission to Ukrainian citizenship is of state interest for Ukraine (Art. 9).

Secondly, the desire to prevent the acquisition of Ukrainian citizenship by a person who has committed a crime against humanity or committed genocide or an act recognized as a grave

or especially grave crime on the territory of another state (cl. 1,3 of part 6 of Art. 9) and at the same time to simplify the conditions for foreigners who are citizens of a state recognized by the Verkhovna Rada of Ukraine as an aggressor state or an occupant state, who have been subjected in their country of origin to acquire Ukrainian citizenship (Art. 9).

Third, the insistence of the Ukrainian diaspora, especially in the U.S. and Canada, many of whose representatives seek to become full citizens of Ukraine without giving up their existing citizenship. The draft law refers to them as persons “who have rendered outstanding services to Ukraine or whose admission to Ukrainian citizenship is of state interest to Ukraine”. According to the draft law, such persons are “foreigners and stateless persons, who have outstanding achievements before Ukraine in the economic, humanitarian spheres, in particular in education, science, culture, art, sport, social and healthcare, public administration, in the sphere of national security and defense, combating crime, protection of constitutional rights and freedom of citizens, strengthening of international prestige of Ukraine, carry out outstanding charity, humanitarian and public activities. The possibility, envisaged by the draft law, to acquire citizenship of Ukraine by persons “who have distinguished service for Ukraine or whose acquisition of Ukrainian citizenship is of state interest for Ukraine” through submission of the declaration of recognition as citizens of Ukraine (without termination of foreign citizenship) is meant primarily for the Ukrainian diaspora.

On December 14, 2021, the Verkhovna Rada of Ukraine adopted the Law of Ukraine “On Amendments to the Law of Ukraine ”On Citizenship of Ukraine“ on the simplified acquisition of Ukrainian citizenship by certain categories of persons” № 1941-IX (*Zakon Ukrainy “Pro vnesennia zmin do Zakonu Ukrainy ”Pro hromadianstvo Ukrainy“*, 2021), a draft of which under the title “On Amendments to the Law of Ukraine “On Citizenship of Ukraine” on the simplified acquisition of Ukrainian citizenship by foreign citizens and stateless persons who participated in the protection of territorial integrity and inviolability of Ukraine“ was submitted by the Cabinet of Ministers of Ukraine in early June 2021 and registered in the registry of the Ministry of Ukraine (*Proekt Zakonu ”Pro vnesennia zmin do Zakonu Ukrainy “Pro hromadianstvo Ukrainy” shchodo sproshchenoho nabuttia hromadianstva Ukrainy inozemtsiamy ta osobamy bez hromadianstva*, 2021). The content of this law largely coincides with the content of the draft law “On Amending the Law of Ukraine ”On Citizenship of Ukraine“ on the grounds and procedure for the acquisition and termination of Ukrainian citizenship” No. 6368 but does not contain the provision, intended for the Ukrainian diaspora, on the possibility of acquiring Ukrainian citizenship through submission of the declaration of recognition as Ukrainian citizens, not providing for termination of foreign citizenship. This can be seen as evidence of the fact that the Ukrainian diaspora plays a decisive role in the introduction of dual citizenship in Ukraine.

The changes envisaged by the draft law “On Amendments to the Law of Ukraine ”On Citizenship of Ukraine on the grounds and procedure for the acquisition and termination of citizenship of Ukraine”, if introduced, will have negative consequences, in particular.

The introduction of dual citizenship in Ukraine will mean the legalization of foreign citizenship of Ukraine, who already have Polish, Hungarian, Romanian, Russian, Israeli, or other passports since in the legislation of Ukraine on Ukrainian citizenship there will no longer be a norm about the loss of Ukrainian citizenship in the case of voluntary acquisition of citizenship of another state. Although possession of such passports will not expand their rights in Ukraine, the relevant states will already be able to officially claim their rights in relation to them as their citizens, to interfere in the internal affairs of Ukraine, for example, under the pretext of protecting their rights.

Foreigners who acquire Ukrainian citizenship by submitting a declaration of recognition as Ukrainian citizens will automatically acquire all constitutional rights of Ukrainian citizens, including those related to free provision of social benefits: the right to use objects of state and communal property for their needs; the right to social protection (includes the right to security in case of full, partial or temporary disability, loss of the breadwinner, unemployment, old age, etc.) the right to provision of housing by state and local self-government bodies free of charge or at an affordable cost; the right to provision of free medical care in state and municipal health care institutions; the right to get free higher education in state and municipal educational institutions, which are the result of work of many generations of Ukrainians and in the creation of which they had nothing to do. Moreover, their newborn children will also be citizens of Ukraine (according to the principle of the “right of blood”). But they are not obliged to pay taxes in Ukraine, to defend Ukraine, its independence and territorial integrity, to perform military service, being outside the territory of Ukraine.

The following constitutional political rights will have negative consequences for the citizens of Ukraine who have citizenship of a foreign state: the right to associate in political parties and public organizations; the right to participate in the management of public affairs, in all-Ukrainian and local referendums; the right to freely elect and be elected to bodies of state power and bodies of local self-government; the right of access to public service and service in local self-government bodies, the use of which will allow them to have a tangible impact on political life in Ukraine.

It should also be taken into account that the Ukrainian diaspora consists mainly of natives of the western regions of Ukraine, who have relevant political preferences, and the acquisition of voting rights by them may significantly affect the results of presidential or parliamentary, or even local elections in Ukraine, especially if the acquisition of Ukrainian citizenship by representatives of the Ukrainian diaspora becomes a mass phenomenon (“There are 65 million of us!”). Until recently it was the need to terminate the existing citizenship that was the determining factor for the representatives of the Ukrainian diaspora to acquire Ukrainian citizenship.

Indeed, the Draft Law of Ukraine “On Amendments to the Law of Ukraine” On Citizenship of Ukraine“ on the grounds and procedure for the acquisition and termination of citizenship of Ukraine” No. 6369 “On preventing and combating threats to the national security of Ukraine in the sphere of citizenship” and No. 6370 “On Amendments to Article 570 of the Customs Code of Ukraine on preventing and combating threats to the national security of Ukraine in the sphere of citizenship”, submitted by the President of Ukraine Vladimir Zelensky to the Parliament of Ukraine are accompanying the analyzed draft law. However, they will be able to appeal such restrictions in court not without success, since according to the Constitution of Ukraine “Citizens have equal constitutional rights and freedoms and are equal before the law” (cl. 1 of Art. 24). And the draft law “On amendments to the Law of Ukraine” On Citizenship of Ukraine“ on the grounds and procedure for the acquisition and termination of the citizenship of Ukraine” provides for the principle of “6) equality of Ukrainian citizens before the law regardless of the grounds, procedure and moment of acquisition of the citizenship of Ukraine” (cl. 6 of Art. 2).

Especially the citizens of Ukraine, who have the citizenship of a foreign state, the right of ownership of land (agricultural land), which the legislation of Ukraine does not yet recognize for foreigners, will have particularly negative consequences. They will be richer than Ukrainians, and they will be able to buy up Ukrainian land. And the partners of Ukraine from the European Union should be asked whether they agree to recognize the right to visa-free visits to their countries by citizens of Ukraine who have the citizenship of a foreign state.

7. Conclusions

The Law of Ukraine “On Citizenship of Ukraine” deals with the fundamental foundations of Ukrainian statehood. It is a long-term document and should not be adopted or changed under the decisive influence of current political events or the political situation. A state that respects itself and its citizens should not neglect to grant citizenship to foreigners. Many European states do not simplify but, on the contrary, complicate the conditions for acquiring citizenship, in particular, by setting the maximum possible period of continuous residence on the territory of the state of the applicant for its citizenship (according to Part 3 Art. 6 of the European Convention on Nationality it shall not exceed ten years). The mass acquisition of Ukrainian citizenship by the simplified procedure for persons who rendered real, or even questionable services to Ukraine, the introduction of dual citizenship in Ukraine, without providing Ukraine with any significant advantages, will have negative and even dangerous consequences for the statehood, a significant part of which is even difficult to predict. So why open “Pandora’s Box”?

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ANALYSIS OF STATE GOVERNANCE IN THE FIELD OF HEALTHCARE IN UKRAINE AND FOREIGN COUNTRIES

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Summary

The current state of health care in Ukraine is characterized by low efficiency of available logistical using and human resources, slow pace of change in the introduction of innovative diagnostic methods and technologies and lack of understanding of the implementation of standards and indicators of quality and effective management of health services.

The goals of health care are to improve health and meet the needs of consumers. The state of the population health depends not only on the provided medical services, but to a large extent on other factors, including the state of the environment, individual heredity, behavioral risk factors, socio-economic status of society and the state of the health care system (*Obolenskyi O.Iu., 2007:191*).

Health care activities should be based on the end results, namely: improving the health of the population; cost and quality of medical services, their availability; fairness and efficiency in the provision of medical services; the effectiveness of mechanisms to protect citizens from financial risk in case of disease (*Surmin Yu. P. 2006:307*)

The authors emphasize the unity of the approach to health care reform in Ukraine at all levels of departmental and national medicine. The study highlights the causes, conditions of formation and functioning of departmental medicine in Ukraine and around the world. The article uses methods of generalization and systematization, grouping and comparison, classification and analogy and systems analysis, as well as the dialectical method and the method of forecasting.

The authors analyze the state of health care reform over the past 10 years in countries with high (Britain, France, USA) and low economies (India), with ongoing military conflicts (Israel), with high life expectancy (Italy), with transition economy (Croatia) and in the post-Soviet countries that joined the European Union (Lithuania).

The study focuses on the rating indicators of gross domestic product (GDP) and life expectancy, according to analytical reports of international organizations WHO, OECD, International Commonwealth Fund and others.

Keywords: state policy, state policy in the field of health care, health care, health care system, health care reform.

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1. Introduction

The health care system of Ukraine in the current conditions of reform requires radical changes in management and regulation, the formation of new scientific methods to solve problems and in making sound management decisions.

The peculiarity of the problem of public health policy is its complexity, systemic, social nature, due to the growing unity of the modern world, the tendency to strengthen the interconnectedness and interdependence of the components of health care (*Bilynska M and others., 2013:396*).

The Ottawa Charter on Health Promotion shows that the self is a good and a resource for daily life, not health. Health is a positive concept, which is based on social personalities, as well as physical capabilities (*WHO, Geneva, 1984:1-6*).

The third millennium is marked by the world's desire to overcome global challenges relevant to every country. The United Nations (UN) focused the efforts of 193 member states on the Millennium Summit in 2000 on the Millennium Development Goals (MDGs), which focused on reducing child mortality, improving maternal health and combating HIV / AIDS. and other parameters, which, on a par with other global tasks, have become a guideline for preserving the most valuable resource of any state – the people. (*MDGs., 2015*) The logical continuation of this program was the program: “Sustainable Development Goals 2030”. Ukraine has also joined this Program: “Strategy for Sustainable Development Ukraine – 2030”. The section: “Strategic Goal 4” provides: “Ensuring public health, well-being and quality education in safe and viable settlements” (*Stratehiia staloho rozvytku Ukrainy: 2030*).

In this, the transformation processes taking place in Ukraine encourage the improvement of public administration mechanisms in the field of health care at all levels, including medical information.

The purpose of the study is to substantiate the theoretical foundations and develop practical recommendations for improving public administration in the field of health at all levels and well-known medicine.

Research tasks:

- connection between the state and problems of reforming state policy in the field of health care at all levels;
- to analyze the research of domestic and foreign scientists on the formation and development of public health policy at all levels, including information on medicine;
- to conduct a comparative analysis of health care models in different countries over the past 10 years;
- to offer practical recommendations for improving the public administration of medicine, various departments and levels of subordination.

2. Literature review

The study of available information on the topic of the scientific article allows us to draw conclusions about the high degree of interest in the features of public policy in the field of health care at all levels, including departmental medicine; the current state of its reform at all levels, ensuring the quality, efficiency, accessibility of medical services to the population; restraint and control of budget expenditures on medical care for the population of Ukraine by scientists, analysts, representatives of government agencies, international organizations, etc.

Many domestic scholars have studied the formation of public (state) policy. Thus, Ukrainian researcher O. Demyanchuk notes: "Thus, it becomes obvious that the formation and implementation of public (state) policy in post-communist states are concentrated almost exclusively in the hands of the higher executive and to some extent the legislature" (Demianchuk O. P., 2000).

According to O. Akimov and others, the existence of an inefficient system of public administration, exacerbation of the economic crisis, depletion of financial resources and, consequently, lower living standards, as well as general corruption and distortion of democratic procedures that hinder recovery (Akimov, O., 2020).

All this in combination requires the search for new ways to fully and timely implement the state of its functions, including ensuring the sustainable development of the state.

Such national scientists as: J. Radysh, N. Kryzyna, V. Lekhan, Z. Gladun, M. Badyuk, L. Kryachkova, V. Ginzburg, V. Furdyk, O. Petrenko, G. Slabky and others.

According to J. Radysh: "State policy in the field of health care is a set of national decisions or commitments to preserve and strengthen physical and mental health and social well-being of the population as the most important component of its national wealth through the implementation of the totality. political, organizational, economic, legal, social, cultural, scientific and medical measures to preserve the gene pool of the Ukrainian nation and its humanitarian potential, taking into account the requirements of present and future generations in the interests of each person (individual) and society as a whole" (Bilynska M and others., 2013:396).

According to O. Petrenko: "... health care system in Ukraine operates in conditions of financial and economic uncertainty; there is an imbalance of the vertical management system and insufficient executive discipline; there are no new management technologies; uncertain role and functions of regional governance, and, at the same time, there is uncritical assessment of the state and role of health care by political forces, as well as excessive criticism and political speculation in its assessment. (Petrenko O., 2011).

And the French scientist Daniel Seymont claims that the reforms of health care systems in Europe after the recession of 2008 are aimed at curbing the growth of budget spending on medicine (Daniel Simonet 2021).

British researchers believe that the existing system of cooperation between health care and social services needs to be improved, as well as the necessary changes in the financial and economic mechanism to increase the staff of hospitals (Mimi Chung 2021).

According to the study, in Italy there is no law on health care and the role of the private sector in the provision of health services is uncertain, but the system has a well-established mechanism for three-year planning (Andrea Poscia and others., 2020).

The task of the current stage of Israeli health care reform is to reduce private spending on medicine in order to eliminate inequality of access to health care (Avi Y. Ellenweig and others., 2020).

In his research, the Indian scientist Tarun Khanna proposed to optimize public spending by: forming a single public procurement body; informatization of the medical services system; development of schemes of rewards and fines for financing health care providers (Tarun Khanna and others., (2021).

Analysis of the state of development of this issue shows the importance of the functioning of departmental medicine in the formation and implementation of state policy in the field of health care, which encourages the improvement of mechanisms of state management of departmental medicine in Ukraine. Many issues related to: legal, financial, economic, resource, personnel mechanisms in the field of health care remain insufficiently studied, especially in

view of the transformation processes in the sustainable development of the state. The need to address these issues at the scientific and practical levels and led to the choice of research topic.

Methods. In the process of achieving the defined goal and solving the set tasks, a set of complementary and interconnected general scientific and special research methods aimed at obtaining objective and reliable results was used, namely:

- generalization and systematization were used in clarifying the theoretical and methodological foundations of the formation and implementation of public administration of departmental medicine and, in particular, establishing the level of research of the problem in the scientific literature;

- grouping, comparison – in order to clarify the conceptual and categorical apparatus of the studied problem;

- classifications, generalizations and analogies – to study the dynamics and regulation of public administration of departmental medicine of Ukraine;

- dialectical, prognostic – in the process of developing and formulating conclusions, summarizing its results and identifying promising areas of research on the topic of the dissertation.

Results. It is known that the level of economic development of any country affects changes in health care, encouraging the development of new or improving existing mechanisms of public administration in health care, but the state constitution and other domestic regulations and international norms determine the policy of any state in this area.

According to the WHO report for 2020, health care reforms in Ukraine have some achievements but also a number of shortcomings. Despite visible progress in achieving the Sustainable Development Goals 72.8% – 41st place in the world ranking of countries in the world, this is not reflected in health care reforms.

At the beginning of the XXI century, global changes have already taken place (globalization of the economy and digitalization of all its branches, building public administration on the principle of “Good governance”, epidemics and pandemics of new diseases), which led to changes in Ukraine and a new stage in all countries of the world without exception (digitization of any medical manipulations, creation of electronic databases and synchronization of registers of various organizations in countries and the world, development and distribution of remote counseling and primary care, telemedicine, artificial intelligence and more).

Most research on this issue focuses on the selection of the type of health care system model and the results of different countries’ achievements in creating medical infrastructure or analyzing the mechanisms of public health management at all levels, including departmental medicine, for implementation or implementation.

We have analyzed the world’s existing models of health care over the past 10 years in foreign countries with different economic development and social security.

The Beveridge model, or the model of public funding for the health care system, is tax funding, well established in the British Monarchy, the French Republic, the Unitary Republic of Greece, the Democratic Republic of Italy, and others. This is the most comprehensive system with a state form of regulation, distribution and control, without targeted insurance funding with a unified and often very limited amount of available medical services. In most cases, this is a small minimum available amount of state-funded assistance, and everything else is from private insurance funds, or from the patient’s pocket.

The Bismarck model, or socially oriented health care system, is a system of compulsory social insurance financed by patients’ interest-based insurance premiums based on monthly income with unlimited access, which applies in the Federal Republic of Germany, the Belgian

Constitutional Monarchy and the Federal Parliamentary Democratic Republic. Switzerland, the parliamentary-constitutional monarchy of Japan. In this model, the state performs regulatory and supervisory functions. At the same time, the risks are partially covered by other insured persons or by social programs.

The national health insurance model is inherent in the Constitutional Monarchy of Canada, the Parliamentary Republic of Israel, and the Presidential Republic of South Korea, which has greater influence and control from the state, which is the sole payer of health care through non-specific taxation of health care programs. Service providers are private entities. This model provides free access to medical services, but the scope of guaranteed services depends on government-regulated expenditures.

A private model of the health care system used in the United States, Africa (the Presidential Republic of Kenya) and the Federal Parliamentary Democratic Republic of India. It is based on competition from private health care providers with out-of-pocket funding. The independence of medical insurance funds is typical, and the role of the state in this model is only moderating (supervisory). This model cannot provide maximum access, and competition between health care providers and insurance agencies increases the level of patient care, but greatly restricts access to these services (*Kaminska T.M., 2012*).

A 2016 survey of eleven high-income citizens of the world on health care spending found that some citizens were unable to undergo the necessary examinations in a timely manner. For example, 32% of Americans and 11% of Britons did not undergo dental examinations due to lack of funds. 33% of Americans, 7% of Britons and 8% of Germans did not seek emergency medical care for the same reason. Because of this, 19% of Americans and 24% of French people cannot receive the necessary treatment or examination (*Robin Osborn and others., 2016*).

Spending 17.1% of GDP, the United States is suffering from constant public protests demanding changes and solutions to many health problems. The US Senate considered the Affordable Care Act in 2017, but the Senate did not support the proposed changes in the medical field, which provoked public opposition. The most painful thing for Americans is free access to health care and the large number of people not covered by private insolvency insurance. The Beveridge and Bismarck models are partially reflected in the US military system and the Medicare insurance program.

Ezra Klein's (2020) study of the health care system in the United States and the United Kingdom found that there is a difference in public health policy.

First, the US political elite is corrupt and non-transparent, lobbying for decisions to support insurance funds and pharmaceutical corporations, rather than supporting social and health care reforms. The British government, on the other hand, prioritizes the health care system and its improvement, and this has become their national idea and lever to win the election. If in the USA expensive treatment of the patient is a sentence, in Britain it is a request to the state for help.

Secondly, the state in the United States does not regulate medicine, but encourages any competition among insurers and hospitals and pharmaceutical companies and ignores the rationing of pricing for medical services. The British government has done the impossible – formed a public health system with clear and reasonable regulation of prices for services and developed clear protocols for medical care and patient routing.

The American health care system was created to shape the market for health services, and the principle of British medicine was to create a comprehensive, well-regulated and accessible health care system. A health care system free from state control creates uncontrolled competition and proves the lack of free access.

The US health care market is limiting and displacing social assistance. The state does not change its normative-legal and structural-organizational mechanisms to meet the needs of citizens and to develop and improve the level of primary health care. Changes in the financial and economic mechanism are also needed to curb uncontrolled competition in the field of medical services and equalize their prices.

The effectiveness of public administration of public medicine or medicine of any department or type of subordination depends on how well the state builds, manages and protects it.

European health care reforms since the 2008 recession are aimed at curbing rising budget spending on medicine.

France's first task was to centralize state control, represented by the Ministry of Health, over various regional agencies, and to group them into larger agencies to form remote controls. But the reforms faced regulatory constraints on previous decentralization reforms and territorial development plans.

The creation of single national regional health agencies, through the transformation and subordination of fragmented health organizations, regional health and social affairs departments, health and social affairs departments and regional disease funds, aims to combat duplication of social and health services and speculation on the provision of health services by various agencies, but faced resistance from small local social security agencies and citizens of small areas (villages and suburbs), which are geographically limited in access to larger local associations and health facilities.

The creation of a system of remote control required the birth of a new technological structure, which placed a greater burden on health workers.

The introduction of public-private partnership did not achieve the expected results, the fundamental difference between the goals and models of the financial and economic mechanism became apparent.

The introduction of an open procurement market among healthcare providers has not been as successful as in the UK, as French hospitals and laboratories have not been able to be the only player in the drug procurement market and private doctors have not had professional associations.

Reforms of the health care system and other sectors of the economy, made in the course of previous efforts to decentralize the latter without sufficient discussion with all stakeholders, have led to open public resistance and even greater divisions and separatist manifestations (Daniel Simonet 2021).

The experience of France is close to us because now, building the government on the principle of decentralization and delegation of powers to local administrations, we need to prevent mistakes that already have and have to solve the French government.

Reforms in Israel's health care system are aimed at reducing medical spending. The total expenditure of GDP on medicine in Israel is 7.4% (62nd place in the WHO ranking). Government expenditures on government programs decreased to 63.8% of total expenditures on medicine due to limited investment, but household expenditures on health services grew by about 1.7% (38%) per capita annually. Most household expenditures are on supplementary insurance (voluntary and commercial health insurance). It was found that the lion's share of these costs is the salary of doctors, as well as the purchase of expensive drugs and the use of the latest technology. These issues were discussed at the Dead Sea Conference in 2021 (*The Economic Arrangements Law., 2008*)

The Indian authorities have first improved the regulatory framework and launched a state program of guaranteed medical services, which includes primary, secondary and tertiary

care. From 2021, the state of India requires insurers to reimburse 74% for the insured event. (R. Srinivisan.,2020).

Secondly, a public-private partnership program is being developed (*Ayushman Bharat – National Health Protection Mission., 2018*) which reduces the burden of costs for private service providers in rural areas and reduces the cost of income for suppliers of medicines and medical equipment, even without the approval of government organizations to conduct such transactions (Cabinet approves Continuation and Revamping of the Scheme for Financial Support to Public Private Partnerships in Infrastructure Viability Gap Funding VGF Scheme. 2020).

Also in 2020, the state program of digitalization of health care – the national digital health mission (*INDIA INVESTMENT GRIDE., 2020*)

The Indian authorities seemed to be advancing on all problem areas of health care, but these reforms are as fragmented as the health care system itself.

Decentralization of territorial and inefficient distribution of the medical budget with weak state control over the quality of services and pricing for them hinders the promotion of national reforms, the implementation of state health programs, because:

- revenue parts of state budgets are very different;
- citizens' insurance is not comprehensive;
- has no centralized influence on health care providers (*Leapfrogging to a Digital Healthcare System: Re-imagining Healthcare for Every Indian. BCG and FICCL., 2020*)

Croatia's healthcare system is based on the principle of compulsory health insurance. The Croatian Health Insurance Fund is the only insurer. The principle of public-private partnership has also been introduced, according to which primary health care is provided mostly by private entities. The percentage of GDP expenditure on medicine in 2020 was 6.3% and in 2021-8.3%. The state pays 80% of the costs. Low health pay for public sector doctors, staff shortages and the resumption of public hospitals remain common health problems (*Aleksandar Džakula and others., 2014*).

The mobilization of medical, civilian and military categories of citizens is characteristic of Croatian medicine. The presence of epidemiological preparedness, which is beneficial for any heterogeneous stress. Equally important is the testing and improvement of the electronic medical services accounting system for detailed analysis and planning of revenues and expenditures. Digitalization of medical records of citizens and medical services at all three levels is a profitable and long-term investment in improving the structural and organizational mechanism of public administration of medicine, which requires improvement of local application but is basis for predicting and forecasting change, thanks to predictors

Lithuania's mixed health care financing system provides for only 66% of the state budget expenditures, which cover the costs of medical care for state programs and treatment of the unemployed. Service providers: public hospitals and private primary care facilities and, to a greater extent, private dental clinics and offices. There are primary institutions in the municipal department. The state health policy of Lithuania is implemented by the Ministry of Health as a customer, payer and partially provider of medical services.

Lithuania entered a period of recession in 2008 with the formation of primary health care and reformed emergency care. Thus, spending 6.5% of GDP on health care, this post-Soviet country has a 3.5-year higher life expectancy than Ukraine. Like any mixed funding system, Lithuania's healthcare system must maintain sufficient efficiency and equal access to health care (*State of Health in the EU Lithuania Country Health Profile., 2021*).

3. Conclusions

1. The sphere of health care in Ukraine in the current conditions of reform requires radical changes in management and regulation, the formation of new scientific approaches to solving problems and making sound management decisions at all levels, including the reform of departmental medicine.

2. The American health care system was created to shape the health care market, and the principle of British medicine was to create a comprehensive, well-regulated and accessible health care system. A health care system free from state control creates uncontrolled competition and proves the lack of free access. It is necessary to change the legal and structural and organizational mechanisms to meet the needs of citizens and to develop and improve the level of primary health care. Changes in the financial and economic mechanism are also needed to curb uncontrolled competition in the field of medical services and equalize their prices.

3. The experience of France is close to us because now, building the government on the principle of decentralization and delegation of powers to local administrations, we need to prevent mistakes that already have and have to solve the French government.

4. Reforms in Israel's health care system are aimed at reducing the cost of medicine, as the lion's share of these costs is the salaries of doctors, as well as the purchase of expensive drugs and the use of the latest technology.

5. The Government of India has improved the legal framework and launched a state program of guaranteed medical services, which includes primary, secondary and tertiary care. From 2021, the state of India requires insurers to reimburse 74% for the insured event. The state program of digitalization of health care – the national digital health mission has been launched. But these reforms are as fragmented as the health care system itself.

6. Analysis of the state of development of this issue shows the importance of the functioning of departmental medicine in the formation and implementation of state policy in the field of health, which encourages the improvement of mechanisms of public administration of the departmental service of Ukraine. At the present stage it is necessary to improve the legal, financial, economic, resource, personnel mechanisms in the field of health care, taking into account the transformation processes in Ukraine.

7. The creation of single national regional health agencies, through the transformation and subordination of fragmented health organizations, regional health and social affairs departments, health and social affairs departments and regional disease funds, is designed to combat duplication of social and health services and speculation on the provision of health services by various agencies, but faced resistance from small local social security agencies and citizens of small areas (villages and suburbs), which are geographically limited in access to larger local associations and health facilities.

8. The level of economic development of any country affects changes in health care, encouraging the development of new or improvement of existing mechanisms of public administration in health care, but the state constitution and other domestic regulations and international norms determine the policy of any state in this area. That is, reforms can not be virtually comprehensive due to the departmental fragmentation of the whole system, but some measures can still be seen as a prospect for implementation.

The effectiveness of public administration of public medicine or medicine of any department or type of subordination depends on how well the state builds, manages and protects it.

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CURRENT THREATS NEAR THE BORDERS OF UKRAINE AND THEIR POSSIBLE CONSEQUENCES

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Summary

The armed conflict in eastern Ukraine is one of the main threats and challenges to the national security of Ukraine. Ukrainian society is already tired of long-term impossibility to resolve the issue of ending the war, thus there has been a tendency in favor of direct negotiations with a neighboring country, namely the Russian Federation, with the social opinion supporting such procedure for resolving a sensitive issue.

The Minsk agreements have failed and in the near future will fail in finding a positive solution to the armed conflict in favor of one of the parties, and Ukrainian society is divided over the consistent implementation of their measures. Some people have an extremely negative attitude to the implementation of certain provisions, others support their implementation, while a third of the society generally votes for the separation of Donbass from Ukraine.

Although the armed conflict is formally happening between the Armed Forces of Ukraine and the illegal military formations of the DPR/LPR, it has a much deeper and more complex structure.

Given the lack of national unity in the state regarding the settlement of the conflict in the Donbas, an important issue arises regarding the beginning of a socio-political dialogue within Ukraine and the development of effective mechanisms for state response to threats to national security. Holding open and transparent discussions between all regions of Ukraine, between two neighboring countries, taking into account the socio-economic situation, cultural and family ties, will provide an opportunity to develop common ways to solve aggravated problems supported by the majority of society.

Keywords: national security, armed conflict, threat, full-on assault, state border, Minsk agreements.

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1. Introduction

After declaration of independence, Ukraine became a full-fledged subject of international relations and an independent, full member of the international community. At the same time, for the implementation of an effective foreign policy of the state, a stable foreign policy course, a regulatory database of relations, scientific justification, research work and practical studies on these issues are necessary, especially with regard to the analysis of threats and risks in the field of national security. The relevance of the research problem relates to the issues of relations between Ukraine and its neighboring countries in the contemporary context and becomes significant against the background of dissemination of information on the possible assault of the Armed Forces of the Russian Federation on the territory of the state.

Analysis of recent research and publications The issues of state protection in modern conditions, its participation in the collective security system were considered in the classical general theoretical works of domestic and foreign scientists, including O. Aliaiev, L. Vorobiova, A. Halchynskiy, O. Honcharenko, K. Hryshenko, V. Derhachov, O. Manachynskiy, I. Hraban, V. Shakhov. The conceptual foundations of international security were studied in the works of scientists from Western European countries, in particular by R. Arona, Z. Brzezinski, D. Baldwin, K. Doych, E. Carra, J. Kennan. At the same time, the problem of the national security system for Ukraine is constantly changing and being updated under the influence of new threats and therefore requires constant analysis and development of new mechanisms for state response in the field of military security and a peaceful settlement of the armed conflict in the east of the state.

Formulating the goals of the article (setting the task). The purpose of the article is to consider issues related to modern views on the formation of the security system in the light of external and internal problems of state development and various approaches to its development. Taking into account irregularity of existing approaches to collective security, the possibility of Ukraine to determine the directions and content of the state response to resolving issues of relations with its close neighbors in order to improve the effectiveness of national security and settle the armed conflict in a peaceful way, returning temporarily occupied territories has been considered.

2. Presentation of the main research material

At the end of October and beginning of November 2021, starting with the publication of the influential American edition “The Washington Post”, the whole world became agitated with the news about the alleged discovery of a large formation of Russian troops near the Ukrainian-Russian state border. Later, Bloomberg, Politico and other Western media outlets wrote about the pileup of Russian forces. Thus, it was immediately concluded that the Russian Federation intends to carry out a full-scale offensive operation to capture a significant territory of Ukraine, the so-called Novorossiia, which will include such regions as Kharkiv, Luhansk, Donetsk, Zaporizhia, Dnipropetrovsk, Kherson, Mykolaiiv and Odesa.

Immediately according to the publications of influential media, the Pentagon informed the European leadership about the formation of a group of Russian troops near the Ukrainian-Russian state border and in the Crimea with the transfer of its airborne formations from the depths of the country. The European Union and the United States warned Russia about the consequences, and NATO said they are closely monitoring the situation, while deploying their forces and assets near the Russian border in the Baltic states, on the Belarusian-Polish border due to the so-called migration crisis and sending their warships to the Black Sea to support the allies and Ukraine, first of all (*The Washington Post*, 2022).

At the same time, neither the intelligence department of the State Border Service, nor the Foreign Intelligence Service and the Main Intelligence Directorate of the Ministry of Defense of Ukraine were able to confirm this information. The heads of these departments did not consider the movement of Russian troops from Belarus after the Zapad-2021 military exercise to the places of permanent deployment and the planned rotation of military units of the South-Western Military District of the Russian Armed Forces as the formation of offensive groups to attack Ukraine. Given the fact that today the digital world and the capabilities of the military potential of the United States of America in the space sphere are very powerful, and the area of the Bryansk, Voronezh and Rostov regions is mostly open, the formation of offensive groups near

the border, deployment of artillery and air defense equipment would be immediately noticed by means of intelligence both from space and ground-based electronic means.

However, during the trip of the head of the Main Intelligence Directorate of the Ministry of Defense of Ukraine Kyryl Budanov to the United States and his meeting with the colleagues, the latter immediately stated that Russian President Vladimir Putin could resort to invading the south and east of Ukraine. It was noted that more than 92 thousand Russian troops are concentrated near the borders of Ukraine, and according to him, the likely offensive against Ukraine will begin with attacks from air- and land-based fires and armored thrust, followed by the landing operation in Odessa and Mariupol, as well as a smaller invasion through the territory of Belarus.

As early as on November 22, 2021, US intelligence shared with European allies the data and maps on the scenario of three possible axes of advance of Russian troops – from the occupied Crimea, in eastern Ukraine along the entire length of the Ukrainian-Russian state border, and from Belarus. According to US intelligence officials, about 100 battalion tactical groups, totaling up to 100 thousand people, will be involved in the attack. The offensive will be supported by combat air force. According to Ukrainian intelligence, half of these forces are already in position and ready to attack. In its turn, US intelligence noted that Russia had increased propaganda and disinformation attacks on Ukraine. It is obvious that the Russian Federation is also training agents to destabilize the situation in Ukraine in order to have an easier path over the territory, and also reports on the unprecedented mobilization of reservists since the collapse of the USSR, who are probably assigned with the role of holding possible future occupied territories (*Europe XXI Foundation, 2021*).

So why did this issue arise at the end of the year, why did Western countries led by the United States of America begin to bring up the issue of pileup of Russian troops near the state border of Ukraine and focus on a full-scale offensive by the Russian Federation against Ukraine? Why hasn't martial law been declared in Ukraine, with the threat of a full-scale offensive and taking into account the consequences of the events of 2014, as required by the Law "On Defense of Ukraine", and defense, mobilization and territorial defense plans have not been put into effect?

The armed conflict in eastern Ukraine has been going on for 8 years in a row, it has passed into the stage of trench warfare and is increasingly negatively affecting the internal political and economic situation in Ukraine. At the same time, over all these eight years, the Ukrainian population has been constantly fed with the same news that a full-scale offensive of the Armed Forces of the Russian Federation on Ukraine will soon take place. Western countries such as the United States, Canada, Australia, Japan, EU member states, etc. imposed economic, political and other sanctions on the Russian Federation following Russia's illegal actions against Ukraine, namely annexing the Crimean Peninsula and maintaining the armed conflict in eastern Ukraine, hoping that under this pressure Russia will not be able to fight for Ukraine and will disintegrate.

In addition to that, the Minsk negotiation process, which was aimed to resolve the armed conflict, is in a dead end both through the efforts of Ukraine and the Russian Federation and Western partners – Germany and France. For more than a year, the Normandy format has failed to meet to discuss the results of the agreements reached earlier in order to move the issue of resolving the armed conflict further. Firstly, there is still no ceasefire on both sides of the contact line; secondly, the issue of opening entry and exit checkpoints on the line of demarcation has not been resolved; thirdly, the special status of certain areas of the Donetsk and Luhansk regions of Ukraine has not been determined; fourthly, the Steinmeier's formula has not been taken

into account, concerning the provision of certain areas of the Donetsk and Luhansk regions of Ukraine with a special procedure of local self-government and the holding of local elections in these territories, and most importantly, peace has not been established and economic ties have not been restored, neither have the supplies channels for the Ukraine's own resources.

Coverage of the escalation of the situation on the Ukrainian-Russian state border is aimed primarily to expand military assistance to Ukraine, as was previously stated by the leadership of the Ukrainian state after a meeting of two presidents – of Ukraine and the United States, and later of other state officials with their colleagues from Great Britain and Canada. So, according to official data of the US State Department, America's security assistance to Ukraine amounted to a total of 2.5 bln. U.S. dollars since 2014, with 400 mln. committed only in 2021. If additional assistance provided by the governments of Great Britain, Canada and some EU member states is added to this amount, then security assistance for Ukraine starting from 2014 will amount to more than 6 bln. U.S. dollars.

Despite the constant statements of the leaders of developed Western countries, the leaders of the European Union and NATO about the constant assistance and support of Ukraine in its struggle for territorial integrity and sovereignty, such significant assistance to Ukraine in the field of security was mainly aimed to provide non-lethal weapons and logistics support to the Armed Forces of Ukraine, train their personnel according to the standards of NATO member countries. Today, assistance to the Ukrainian state in the military sphere continues, and allies and partners undertake to gradually expand it in such areas as providing ships and boats for the navy and the state border service of Ukraine, anti-tank and air-defence weapons, unmanned aerial vehicles.

At the same time, the amount of assistance provided to Ukraine which is allegedly very significant has failed to strengthen the country's defense capability so much and increase the combat potential of the Ukrainian Armed Forces. Over eight years of the armed conflict that continues in eastern Ukraine, the Armed Forces of Ukraine and other units of the defense sector have received practically no latest modern military equipment, – at best they were provided with the modernized and repaired samples of military equipment and specialized vehicles of the Soviet and western type.

Along with providing practical assistance, NATO member countries have increased their presence in the Black Sea region in order to conduct intelligence, study the real situation and the ability of the Russian Federation to respond to joint actions of Ukraine and partner countries. Unfortunately, such actions do not promote easing of tensions both at the regional and global levels.

The analysis of the events and threats to the modern world that have emerged over the past 20 years, especially on the European continent, indicates that the United States of America and its allies, represented by the member states of the European Union, began to lose hegemony over the countries previously being under their influence, as well as over the technologies in the economic and military spheres and standards that they set themselves for democratic countries. Now it's no secret that the world has changed and ceased to be bipolar. Instead of the United States and the EU, such powerful countries as China, India and Russia enter the arena of global hegemony, and the situation in different regions of the world depends on their influence.

With the end of the Cold War, the defeat of the USSR and the liquidation of the military bloc of Eastern European countries – the so-called “Warsaw Pact”, the United States and its allies did not stop at the line that used to share the spheres of interest of two different social formations, namely, capitalist and communist. With the collapse of the USSR and the emergence of new independent countries in the space of the Eurasian continent, rapid steps aimed to break

union ties, sometimes impulsive and led purely by personal grudges of the leaders of already independent republics left many territorial, economic, social and cultural issues unresolved, which later resulted into a threat of conflict situations, and subsequently developed into conflicts on the state border or within states.

The North Atlantic bloc, considering itself a winner and a powerful leader within the collective security system around the world, began to pursue a policy of expansion, accepting new members both from the countries of the Eastern European region that used to be a part of the zone of communist influence, and former post-Soviet republics. This was done too quickly, ignoring the interests of other countries, justifying it by internal affairs of the Alliance and third countries have no right to interfere. Such a rapid pace of expansion of the North Atlantic bloc can be explained by several reasons. First of all, the United States and its allies expanded the zone of influence of their interests; secondly, this is a revenge for the so-called defeat in World War II, successful expansion of the communist ideology to Eastern European countries and split of Europe, and especially Germany; thirdly, the countries that left the zone of influence of the USSR were weak and were not ready to independently defend and pursue their own international policies, so they immediately perceived the EU and NATO as a new collective formation that will ensure their further peaceful coexistence; fourthly, it is of course, pressure on Russia to prevent it from waking up from defeat in the “cold war” and impose its own rule of hegemony; fifthly, aim to expand the economic space and promote its own economic interests to other territories; sixthly, will to create a new buffer zone between the members of the NATO bloc and Russia.

In the period from the late 80s to the late 90s of the last century, the Russian Federation, due to the state of its economic, military and social development, lost its authority and attractiveness to many former Soviet republics. The Commonwealth of Independent States, which was supposed to replace the structures and procedure for interaction of the former Union republics, giving everyone a free choice of their development, strand of policy, but keeping them in a single economic, social and cultural space, could not solve all pressing issues and later, due to economic deterioration, and then the loss of many economic ties, remained only a formal organization. Such state of affairs in the post-Soviet space completely suited the United States and its allies, let them loose and contributed to their economic expansion due to the loss of such a competitor as the USSR, especially in the energy, military and space spheres. In the future – it might be fragmentation of such large states as Ukraine, Belarus and the Russian Federation into several parts and the acquisition of all their resources.

Ukraine has also suffered from the period of decline and search for its own way both at the regional and international levels. Unattractiveness of the situation in the Russian Federation, constant disputes concerning political, economic and territorial issues between Ukraine and Russia, created many threats and stumbling blocks in interstate relations, which later only aggravated rather than eased. This was especially visible in foreign policy, energy sector, demarcation and passage of the state border, the status of the Crimean Peninsula and the city of Sevastopol, deployment of the Russian fleet in the Black Sea, and so on. Failure to solve such burning historically interrelated issues of the two neighboring states, the intervention of other external players in their relations later on, namely in 2014, prompted the occupation of the Crimean Peninsula, the emergence of an armed conflict in eastern Ukraine and the loss of part of its territory.

Since the 2000s, the Russian Federation, unlike Ukraine, has begun to implement its own reforms in the economic, political, military, ideological and social spheres, while refusing the assistance and influence of the International Monetary Fund and the International Bank,

using only internal resources. Subsequently, having overcome several crisis periods, without changing approaches to solving the main tasks of reforms, the country was finally able to improve the state of economic, military and political potential, and most importantly, resolve the issue of the armed conflict in the North Caucasus. During the same period, the Russian Federation improved interstate relations with a number of neighboring countries, especially with China, which is becoming one of the leaders in economic development in the world, Kazakhstan, Belarus and others.

The economic, political and military potential, which has noticeably changed for the better in recent years, gave confidence to the political leadership of the Russian Federation supporting it once again in declaring its strength and the existence of national interests in the post-Soviet space. Such successes, and even more so the statements about extending their national interests beyond the state border of Russia, caused not only concern among the Western world, but also the threat of destroying the entire bipolar world order. Therefore, in order not to allow the influence of the interests of the Russian Federation to spread to former, already independent republics, to establish lost economic relations, the EU and the United States pursued a policy of good-neighborly relations with individual post-Soviet countries, (Moldova, Ukraine, Belarus, Georgia, Azerbaijan and Armenia) primarily to prepare them for alleged accession to the EU and NATO, while according to EU and US own scenarios and standards (Guam, Eastern Partnership, Annual National Programs of cooperation with NATO, etc.).

Of course, Russia's success could not but worry Western partners, so the policy of accelerated admission of new members to the European Union and NATO, with the gradual approach of economic and military space to the borders of Russia, increasingly caused concern and irritation of the latter. Ukraine, which was considered an integral part of the Slavic unified ethnic group, an associate in economic issues (agriculture, animal husbandry, heavy and light industry, developed during the Soviet era) chose the European and Euro-Atlantic course of foreign policy under the influence of constant promises from the United States and EU member states to be one of the countries of the single European Union and the collective security system on the one hand, and the break in relations with Russia due to their unattractiveness on the other.

There continued to appear political quarrels, insults and economic "gas" or "transit" wars breaking economic ties, constantly against the background of inconsistent positions in the energy sector between Russia and Ukraine. In solving these difficult, though interstate, neighborly relations with Russia, Ukraine was constantly looking for intermediaries or influential assistants in the face of the United States and the EU. Thus, it's Ukraine's loss that it found itself caught between two fires that allowed not only Russia, but also other external players to interfere in its internal affairs.

The Russian Federation was pursuing its economic policy in a different way at that time, given the defeat in the Cold War, economic collapse and decline. It was a policy of capitalism and an open market. Russia, as the main supplier of energy resources, offered its natural resources at the prices determined by the world market, the reduction of prices on resources was influenced by many factors, and the last word was left to those who own and supply these resources, – everyone works this way and so does the market.

In 2014, in response to the occupation of the Autonomous Republic of Crimea and the outbreak of the armed conflict in eastern Ukraine, the West collectively imposed economic sanctions on the Russian Federation in the hope of giving a vulnerable blow to its economy and forcing it to abandon its intentions to influence and keep Ukraine in the field of its national interests. But, the collective West acted in accordance with the economic laws of the same capitalist market, – it imposed sanctions on Russia, while still using its own capabilities, leaving

the window for cooperation with the Russian Federation in favor of the West, and not Ukraine, which was considered a victim. Having received sanctions, Russia has not stopped supplying energy resources, trading with the countries that imposed sanctions on it. It was building new pipelines with EU member states and other neighboring countries (South Stream with Turkey, Greece, Italy, Bulgaria, Romania, Hungary, Austria, Serbia and Slovenia; Nord Stream – with Germany, etc.) and had the right to decide which way to do this, since it is a supplier of those energy resources. At the same time, Ukraine is not among those countries.

When we live in the countries that are our close neighbors, in the context of capitalism and globalization, where there are market rules, we must realize that we depend on our attractiveness of being competitive, our ability to be fair in competition, our reliability as an economic partner, while doing long-term strategic analysis of associated risks and threats to national security. Having lost the Donbass with its resources and enterprises, Ukraine is forced to buy coal several times more expensive in other countries, but they do not give us their products for nothing or at reduced prices, although they support us in every possible way on the diplomatic arena. No complaints as they did not refuse to supply it, but at what price for Ukraine? At the same time, constantly emphasizing that the country has all the opportunities and resources to meet its own needs, we have been buying energy resources from abroad year in year out, spending a lot of money. The association agreement between Ukraine and the EU did not give equal rights to Ukrainian producers in cooperation on the European market nor a clear answer to the question of Ukraine's accession to the European Community.

According to the Lead Spokesperson for Foreign Affairs and Security Policy of the European Commission Peter Stano, "Ukraine is not expected to join the EU. We are talking about the Western Balkans, not Ukraine. It is a neighboring partner country, with which we are developing a partnership within the framework of the association agreement. We are aware of its European aspirations. We developed this partnership as part of the Association Agreement, which is the most ambitious of the association agreements we have had with neighboring countries. Now we are working on the basis of the Association Agreement with Ukraine" (*News Website Dilo, 2022*).

The same applies to the military aid. Having received such assistance from the United States and NATO member countries, Ukraine paid off with money provided by the same partners. And in general we should forget about the full-scope assistance by members of the NATO bloc in the event of a full-scale Russian offensive against Ukraine, since Ukraine is not yet a member of this bloc and it is not subject to the requirement of Article 5 of the North Atlantic Pact. Therefore, the words of support from Western partners remain the words, and Ukraine will be left alone with its problems.

Neither the concern of NATO and its leaders, nor the constant intimidation by the United States and critical statements by EU leaders about the Russian troops near the state border of Ukraine produced the results that the collective West expects from Russia. This proves that Russia will not deviate from its plan and will continue to influence the policy of Ukraine and protect its spatial national interests within the post-Soviet republics, as evidenced by recent events and the provision by Russia of proposals to international agreements with the United States and EU countries on security issues and ending the expansion of the NATO bloc. So, whether we want it or not, we need to develop a new policy with the neighboring state, relying on our own strength and capabilities, while at the same time being attentive to international relations between powerful countries of the world.

Given the tense situation in the Eastern European region, the increase in diplomatic relations between Russia and the West, and information about the outbreak of war against

Ukraine, the Russian president warned the West against crossing the “red lines” established by Russia, citing the deployment of US air and missile strike systems in Ukraine as an example, and called for establishing relations. At the same time, stating the hope that the situation will not go so far, the Russian President reminded that in 2022 the Russian Navy will receive new hypersonic missiles (*Kommersant news website, 2022*).

Against the background of threats from both the West and Russia concerning the situation around Ukraine, the parties held a summit of the presidents of the two states – Vladimir Putin and Joe Biden. Before that, US Secretary of State Anthony Blinken met with Russian Foreign Minister S.Lavrov. The meeting resulted into nothing but new warnings and threats. At the same time, during the talks between the two leaders of powerful nuclear states, it was decided to continue the dialogue between NATO and Russia on security issues.

So, the situation is getting quite serious and Russia will not retreat, but on the contrary voices very specific demands to the West: no additional expansion of NATO and appropriate legal guarantees; no long-range foreign missiles in Ukraine; no foreign troops in Ukraine.

Given that Russia does not make concessions, and the West does not express direct support for Ukraine by military means, but only supports diplomatic and economic assistance, Ukrainian President Volodymyr Zelensky signaled his readiness to negotiate with Russia and this will be one of the first proposals during the negotiations between the United States and Russia. This once again confirms that the escalation in relations between the West and Russia over Ukraine and the so-called “red lines” have worsened, but the parties note that neither of them is interested in the conflict and aim, in their opinion, to prevent the implementation of the worst-case scenario. While each side accuses the other of creating new tensions, even coup attempts against the leader of Ukraine, harsh diplomatic statements or a small incident somewhere on the border can actually lead to real clashes.

Today, the situation around Ukraine is not developing for the better, the South Stream pipelines are working, Nord Stream 2 has been built and despite attempts by the Ukrainian authorities to stop it, it is gradually being certified and will be launched in the near future, which will immediately create uneven playing field for us as a transit country in relation to the EU countries. At the same time, if the issue is resolved on the joint use of the Ukrainian GTS and easing tension in interstate relations at the interstate level with the Russian Federation, it will allow Ukraine to return the interest of Russia and the EU to the full use of the Ukrainian GTS, with both Nord Stream, and South Stream playing secondary roles.

Establishing a direct dialogue between the leaders of the two countries will provide opportunities to find common ground to resolve the most pressing issues in interstate relations and start resolving the armed conflict in eastern Ukraine. This is not an easy, very sensitive issue, but without making an independent and important decision, Ukraine will continue with its crisis and economic stagnation, which will affect the social life of the population and may cause a new crisis in the future.

Also, the leaders of the United States and Russia have already initiated the work of an expert group on security issues between NATO countries and Russia, one of the key issues being the guarantees of Ukraine’s non-accession to NATO. Such a decision will be made by all NATO member countries and is unlikely to be made quickly, but it will force consideration of the issue of Ukraine’s accession to NATO onto the back burner, but will not remove the second issue –the peaceful settlement of the armed conflict in eastern Ukraine.

So, the problem of bilateral interstate relations between Ukraine and Russia is far from being solved today, but sooner or later we will have to solve it. If it is resolved from a position of strength on the part of Ukraine, this will not only worsen the situation in the state, but

may also lead to the destruction of Ukraine itself. Therefore, we need the political will and determination of the state leadership to find non-standard and mutually acceptable solutions for establishing relations between the governments of the two states. It should be understood that such neighbors as Russia and Belarus will still be there, and their integration into the union formation will raise new issues in relations with Ukraine. Ukraine has difficulties in its relations with other neighbors, such as Poland, Hungary, Romania due to historical events. At the same time, based on the pro-European foreign policy, Ukraine was able to clarify painful issues with these countries.

Therefore, direct negotiations with neighboring countries on security issues would be the best way to resolve controversial issues, and the majority (56%) of the population of Ukraine insists on this (*News Website Novyny, 2022*).

3. Conclusion

Against the background of the constantly growing threat of military escalation on the Ukrainian-Russian, and recently on the Ukrainian-Belarusian state border, the tension is not deescalating. Ukraine is currently trying to resolve the conflict issues with Russia and Belarus with the help of external players, which does not benefit interstate relations. The continuation of the armed conflict in the east of the country and the continuing presence of threats in the military sphere regarding the possible new conflicts on the state border not only disperses the forces of the state, but also worsens the economic, political and social situation in the country.

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THE INFLUENCE OF EUROPEAN CHARTER OF LOCAL SELF-GOVERNMENT ON THE DEVELOPMENT OF UKRAINIAN MUNICIPAL LAW

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Summary

Ukrainian State has made its historic choice in favor of European integration. The basic European values, of course, include developed local self-government, recognized and guaranteed by the state authorities. The European Charter of Local Self-Government has been the main European standard to which Ukraine has committed itself to recognizing and complying in recent decades.

The European Charter of Local Self-Government, adopted by the Council of Europe on 15 October 1985 as a result of many years of work by various European bodies, remains as the main international legal document which sets standards for the organization of local government on the basis of local self-government.

Theoretical views on legal nature of the European Charter of Local Self-Government from the standpoint of various branches of law are summarized, legal problems of the Charter implementation are identified and ways to overcome them are outlined. Level of municipal, administrative and legal culture, can be used for further research in this area and for educational purposes by pupils, students, local government officials, civil servants, deputies of local councils.

Based on the sources and scientific literature we have studied, it can be argued that the European Charter has a multifaceted legal nature and is the subject of research by scholars in international, constitutional and municipal law which identifies national models of local self-government of the states that ratified it. For Ukraine, the Charter is a vector of further transformations of the local government system in the direction of building capable local self-government.

Keywords: Council of Europe, international law, territorial community, civil society.

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1. Introduction

Urgency of the research Ukrainian State has made its historic choice in favor of European integration, promoting the establishment of European values and European identity of Ukraine, creating the necessary conditions for growth and realization of its potential. The basic European

values, of course, include developed local self-government, recognized and guaranteed by the state authorities. Despite the existence of many international legal instruments regulating the field of local self-government, the European Charter of Local Self-Government has remained the main European standard to which Ukraine has committed itself to be recognized and complied with in recent decades.

After ratification of the Charter by Ukraine, much has been done in the direction of its implementation and implementation, in particular, a large-scale development of local self-government has begun, which continues to this day. Today, decentralization, reform of the administrative-territorial system and local self-government is one of the key areas of systemic social transformation in Ukraine, the implementation of which is impossible without the involvement of relevant research.

Study purposes: to study the historical preconditions for the adoption and implementation of the European Charter of Local Self-Government of Ukraine, based on the analysis of current legislation and practical problems of its implementation to develop proposals aimed at improving the legal regulation of local self-government in Ukraine.

To perform this work, the following **tasks** were set:

- to study the historical background of the European Charter of Local Self-Government and its legal nature;
- to generalize the scientific literature of domestic and foreign authors studying the influence of the Charter on the theory of municipal law;
- to analyze the content of the European Charter of Local Self-Government and the legislative acts of Ukraine adopted for its implementation;

Research method. The following methods were used in the study:

- system-structural – analysis of the structure and provisions of the European Charter of Local Self-Government; historical – study of the history of the European Charter of Local Self-Government, signing and ratification by European countries; generalization and synthesis – study of the legal nature of the European Charter of Local Self-Government; statistical – research by interviewing a group of officials and a group of deputies of local councils awareness of the provisions of the Charter and its use in their practice.

Theoretical and practical significance of the work: theoretical views on the legal nature of the European Charter of Local Self-Government from the standpoint of various branches of law are identified, legal problems of implementation of the Charter are identified and ways to overcome them are outlined, level of municipal, administrative and legal culture, and can also be used for further research in this area and for practical application by local government officials, civil servants, deputies of local councils.

2. Structure and content of the European Charter of Local Self-Government

Structure of European Charter of Local Self-Government consists of a Preamble, three Parts, which combine 18 Articles.

The Preamble to Charter states, in particular, that member States of the Council of Europe which have signed the Charter, considering that the aim of the Council of Europe is to achieve greater unity between its members. With due regard to that one of the methods of achieving this objective is the conclusion of agreements in the administrative area. In the context of that local self-government is one of the main foundations of any democratic regime, we have agreed on the following (*Khartiia, 2009*) – the following is a summary of Article 1 of the Charter on the obligations of the parties. Thus, the Preamble of the Charter defines the fundamental Principles

of local self-government as an important institution of a democratic society, the integration goal of the Charter and the method of achieving it – the conclusion of the Agreement.

The first Part of the Charter covers 10 Articles (from 2 to 11 inclusive) and contains important provisions on the autonomy of the institution of local self-government. The principle of local government is recognized in national legislation and in the Constitution (Article 2). According to Article 3 of the Charter, local self-government means the right and ability of local self-government bodies within the law to regulate and manage a significant share of public affairs, under their own responsibility, in the interests of the local population. This right is exercised by councils or assemblies, the members of which are elected by secret ballot on the basis of direct, equal, universal suffrage and which may have executive bodies accountable to them. This provision in no way precludes the use of citizens' assemblies, referendums or any other form of direct citizen participation, if permitted by law.

Article 4 of the Charter outlines the scope of competence of local self-government and establishes the principle of subsidiarity, in particular, it states that the main powers and functions of local self-government are determined by the constitution or law. Within the framework of the law, local self-government bodies have the full right to freely resolve any issue that is not excluded from the scope of their competence and the resolution of which is not entrusted to any other body. Public authority is usually exercised mainly by those public authorities that have the closest contact with the citizen. In the process of planning and decision-making on all issues directly related to local self-government bodies, the latter should be consulted, as soon as possible and in an appropriate manner.

Article 5 of Charter implements Principle of territorial boundaries protection of local self-government and states that changes in the territorial boundaries of local self-government bodies cannot be carried out without prior opinion of the relevant local communities, possibly by referendum if permitted by law.

Without prejudice to more general legislation, local governments should be able to define their own internal administrative structures, taking into account local needs and the need to ensure effective governance. Conditions of service of employees of local governments should allow the selection of highly qualified personnel, taking into account personal qualities and competencies; for this purpose, appropriate opportunities for professional training, remuneration and promotion are provided (Article 6 of the Charter), thus consolidating the organizational, legal and personnel bases of local self-government.

An article 7, 8 of Charter establishes fundamentally important guarantees of local self-government in the exercise of the powers of elected representatives, as well as in the administrative supervision of the activities of local self-government bodies. The conditions of activity of local elected representatives must ensure the free performance of their functions, provide for appropriate financial reimbursement of expenses incurred in this activity, reimbursement of lost income or remuneration for work performed, appropriate protection of social security. Any functions and activities that are incompatible with the mandate of the local representative are determined by law or fundamental legal principles.

Article 9 of the Charter establishes the financial basis of local self-government and establishes, in particular, that local self-government bodies have the right within the area of national economic policy to their own adequate financial resources, which they can freely dispose of within their powers. Article 10 of Charter enshrines the right of local governments to freedom of association with other local governments, including other states, and Article 11 – establishes guarantees of legal protection to ensure the free exercise of their powers.

Part II “Other Provisions” consists of three articles (Articles 12, 13, 14) and contains provisions on the obligations of states that have ratified the Charter, the right of states to determine the categories of local or regional self-government bodies with which it intends to limit application of the Charter or which it intends to withdraw from it. States are also required to provide the Secretary General of the Council of Europe with all relevant information concerning legislation or other measures taken by it to comply with the provisions of this Charter.

Part III of Charter deals with the procedural issues of its signing, ratification and entry into force (Article 15), its territorial application (Article 16), denunciation (Article 17), and notification (Article 18) on actions with the Charter.

Thus, the European Charter of Local Self-Government is a small document in its scope, but its content and significance for European states, the process of European integration and ensuring the progressive development of the institution of local self-government is difficult to overestimate. Most of its norms are norms-principles of universal character, which can be flexibly adapted to national legal systems, taking into account the diversity of their models of local self-government. The legal technique of the European Charter of Local Self-Government also deserves the highest praise, in particular, the presentation of legal norms is characterized by clarity, accuracy, compactness and so on.

3. The value of the European Charter of Local Self-Government for the development of local self-government in Ukraine

Ukraine’s ratification of the European Charter of Local Self-Government has become a landmark event in the development of local self-government as an important institution of civil society, contributed to its democratization, helping to rid of outdated Soviet pseudo-self-governing forms of activity of bodies and officials, institutionalization of new legal forms and methods of work, as well as changes in understanding the essence of local self-government in the minds of citizens.

First of all, it should be noted that after the signing of the European Charter of Local Self-Government on behalf of Ukraine, the Constitutional Law of Ukraine “On Local Self-Government in Ukraine” of 21 May 1997 № 280/97-BP (*Pro mistseve samovriaduvannia, 1997*) was adopted, which initiated the reform of this institution in the light of the principles set out in the Charter. In accordance with the Constitution of Ukraine, this Law defines the system and guarantees of local self-government in Ukraine, the principles of organization and activity, the legal status and responsibilities of bodies and officials of local self-government. Article 2 of this Law defines local self-government as a state-guaranteed right and real ability of a territorial community – villagers or voluntary association of residents of several villages, settlements, cities – independently or under the responsibility of local government bodies and officials to decide local issues within the limits of the Constitution and laws of Ukraine. Local self-government is carried out by territorial communities of villages, settlements, cities both directly and through village, settlement, city councils and their executive bodies, as well as through district and regional councils representing common interests of territorial communities of villages, settlements and cities.

The fixing of the status of the primary subject of local self-government, the main bearer of its functions and powers for the territorial community of the village, settlement, city has become an important innovation of this law. The introduction of the principle of separation of powers in Art. 10 of this Law was an important innovation, according to which representative bodies of local self-government (councils), village, settlement, city mayors, executive bodies

of local self-government act on the principle of division of powers in the manner and within the limits prescribed by law. The procedure for forming and organizing the activities of councils is determined by the Constitution, Laws of Ukraine, as well as the statutes of territorial communities.

The establishment by this Law of guarantees of local self-government, its bodies and officials, which correlates with Art. 4, 7, 8 of the European Charter of Local Self-Government was really important. According to Art. 71 of the Law of Ukraine “On Local Self-Government in Ukraine” territorial communities, bodies and officials of local self-government independently exercise their powers. Bodies of executive power, their officials have no right to interfere in the activities of bodies and officials of local self-government, as well as to resolve issues referred by the Constitution and Laws of Ukraine to the powers of bodies and officials of local self-government, except in cases of powers delegated to them, provided by law. If the local state administration considers issues that affect the interests of local self-government, it must notify the relevant authorities, which in turn have the right to apply to the court to declare illegal acts of local authorities, local governments, enterprises, institutions and organizations that restrict rights of territorial communities, powers of bodies, officials of local self-government.

The institutionalization of service in local self-government as an independent type of public service due to the adoption of June 7, 2001 Law of Ukraine “On Service in Local Self-Government” (*Pro sluzhbu, 2001*) was an important step towards further development of local self-government in Ukraine after the ratification of the Charter. Before the adoption of this Law, the Law of Ukraine “On Civil Service” in force at that time extended its effect to local government officials, which did not take into account either the peculiarities of the activities of local government officials or the specifics of their service, which did not contribute to the involvement of highly qualified personnel in this type of service, as provided for in Art. 6 of the European Charter of Local Self-Government. As K. Solyannik rightly points out, the development of local self-government of our state directly depends on the resource provision of its components. The Law of Ukraine “On Service in Local Self-Government Bodies” established mandatory rules of conduct for the bodies of the territorial community to implement their organizational method of working with staff. National mechanisms for the selection, placement, education, training of local government officials should be used as a single standard throughout the country. Based on this, some communities improve procedures, forms and methods of work, solving the problem of providing government agencies with professional staff (*Solyannik, 2006: 80, 81*). Another important milestone in the process of reforming the institution of local self-government in Ukraine was the adoption of the Law of Ukraine “On the Status of Deputies of Local Councils” of July 11, 2002 (*Pro status deputativ, 2002*), which defined the legal status of deputy as a representative of the interests of the territorial community, voters of his constituency and an equal member of the local council, establishes guarantees of deputy activity and the procedure for recalling a deputy of the local council. In pursuance of Art. 7 of the Charter, this Law also enshrines the incompatibility of the status of a local council deputy with certain positions and activities, his rights and responsibilities, sessional and non-sessional forms of work of a local council deputy in the council and its bodies, as well as providing conditions for labor and other rights.

Full-fledged local self-government as a management system cannot effectively address issues of local importance without adequate provision of financial resources that guarantee the independence of local budgets. In this regard, the Verkhovna Rada of Ukraine on June 21, 2001 adopted the first version of the Budget Code of Ukraine (*Biudzhetniyi, 2010*), which defined the principles of the budget system of Ukraine, its structure, principles, legal framework,

basics of budget process and intergovernmental relations and liability for violations budget legislation. For the first time in the history of Ukraine, a single codified legal act was adopted, which regulated budgetary relations, including in local self-government, as a separate third section of the Budget Code was devoted to local budgets, including their structure, revenue and expenditure, development budget, process preparation, consideration, approval, implementation and reporting on local budgets, as well as inter-budgetary relations between the state and local government, the division of expenditures between budgets. Later, many changes and additions were made to the Budget Code aimed at its improvement and further budget decentralization.

The adoption of such an important legal act for local self-government as the Tax Code of Ukraine (*Tax, 2010*), which regulates relations arising in the field of taxes and fees, including local ones, which are established and abolished by decisions of city councils and councils of united territorial communities cannot be ignored. According to Art. 8 of the Tax Code, local taxes and fees are established in accordance with the list and within the limits of rates set by the Tax Code of Ukraine, decisions of village, town, city councils and councils of united territorial communities, established in accordance with law and long-term plan formation of communities, within their powers and are mandatory for payment on the territory of the respective territorial communities. Local taxes include the property tax and the single tax, and local fees include the parking fee and the tourist tax, which are fully received by the relevant local budgets and used to support the livelihoods of communities.

Reforming the administrative-territorial structure of Ukraine, the process of decentralization of power on the ground, the formation of capable and self-sufficient communities as the starting point of the territorial management system launched on February 5, 2015 Law of Ukraine “On Voluntary Association of Territorial Communities” (*Pro dobrovilne, 2015*). arising in the process of voluntary association of territorial communities, as well as voluntary accession to the united territorial communities.

A significant number of bylaws have been adopted to implement the above-mentioned legislative acts, which are also important sources of modern municipal law.

As U. Todyk and M. Voronov rightly noted, the significance of the Charter for the development of local self-government and municipal law in Ukraine is as follows:

a) the Charter generalizes the European experience, which can be fruitfully used in Ukraine;

b) The Charter emphasizes the role of local self-government in governing the state and society, in ensuring stability in society, in involving citizens in solving local problems;

c) The Charter establishes the principles of organization of local government for Ukraine as a member of the Council of Europe, ie municipalities have received in addition to state guarantees of their rights and international guarantees;

d) The Charter is a document that reflects the values of constitutionalism that unite the peoples of European states. Thus, the Charter gives impetus to the development of local democracy in Ukraine, the search for the most optimal and effective forms of local self-government, taking into account the best European experience (*Todyky, 2004: 245*).

4. Conclusions

As a result we came to the conclusion that in the process of European integration one of the important European values is developed local self-government, which is the most optimal management system close to the population, which has the flexibility to adapt to many local issues.

The European Charter of Local Self-Government, adopted by the Council of Europe on 15 October 1985 as a result of many years of work by various European bodies, remains the main international legal document setting standards for the organization of local government on the basis of local self-government.

The European Charter of Local Self-Government was signed on behalf of Ukraine on 6 November 1996 in Strasbourg and ratified by the Verkhovna Rada of Ukraine on 15 July 1997, unlike in many European countries, without any reservations. At present, due to various, mainly political, reasons, the process of implementing the European Charter of Local Self-Government and harmonizing it with national legislation remains incomplete and requires the state to focus its efforts on fulfilling its commitments in full.

Based on the sources and scientific literature we have studied, we can state that the European Charter has a multifaceted legal nature and is the subject of research by scholars in the fields of international, constitutional and municipal law. According to its essential characteristics, the European Charter of Local Self-Government is an international standard in this field, which defines the national models of local self-government of the states that have ratified it. For Ukraine, the Charter is a vector of further transformations of the local government system in the direction of building capable local self-government.

In its legal form, the European Charter of Local Self-Government is a multilateral political international treaty of the European region and an international treaty concluded by the Ukrainian state, which in turn is a part of the national legislation of Ukraine. Recognition of the primacy of international law over domestic law obliges Ukraine to bring its national legislation in line with the standards set out in the Charter.

After the signing of the Charter, a number of important municipal laws and bylaws of Ukraine aimed at implementing the principles of the Charter were adopted. However, the measures taken are not entirely sufficient, as many important issues of municipal activity, which are not fully in line with the principles of the European Charter, remain unresolved today. Among them: introduction of own executive bodies of rayon and oblast councils and determination of their powers, amendments to land legislation to expand the competence of village and settlement councils on land management outside settlements and approval of monetary valuation of relevant land plots, adoption of a new version of the Law of Ukraine “On service in local self-government bodies”, adoption of legislation on local referendums, implementation of organizational measures to improve the skills of employees and deputies of local councils on knowledge of the principles of European standards of local democracy.

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HEALTH, ENVIRONMENT, DEVELOPMENT**APPLICATION OF PSYCHOHYGIENIC MEASURES
TO OPTIMIZE LEARNING CONDITIONS****Tetiana Holovkova**

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Summary

One of the most important conditions for successful student learning and mastering professional competencies is the socio-cultural environment that is developed in the student collective body. The article deals with the current problem of interaction and mutual understanding in the student environment of a higher medical school. The purpose of the study is to determine the indicators of team building and assessment of the psychological microclimate in student academic groups to develop measures to optimize the conditions of their learning. Studies of interpersonal relationships have been provided in academic groups among medical students of Dnipro State Medical University, using a sociometric method (anonymous surveys of students). The results allowed identifying the degree of sociability in groups according to the level of personal compatibility, true leaders, the number of conflicts in groups, their characteristics etc. The analysis of the obtained data not only testifies to the most favourable degree of interpersonal compatibility in student groups, but also presents a range of some interpersonal-relation problems. It necessitates the development and implementation of measures to form a preventive educational space as a prerequisite for effective professional training. An important component of the results is the definition of the psychological “portrait” of the student in the microenvironment, which allows predicting his personal potential for further consideration in professional selection in future educational, social and scientific activities.

Key words: psychological microclimate, students, academic group, sociometric method, interpersonal compatibility coefficient.

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1. Introduction

The teaching process of higher education, as an integral part of the educational process and bringing-up comprehensively developed personality who meets the needs of modern society, should ensure self-realization of student’s abilities (*Blinova, Ilnitskaya, 2019: 298*;

Ravliuk, 2016). Improving the educational level of a doctor, as a factor of his competitiveness, is one of the main tasks of higher medical education and it determines the high requirements for the quality of training of medical professionals (Williams et al., 2020). One of the most important conditions for successful student learning and mastering professional competencies is the socio-cultural environment that develops in the student collective group.

In this regard, one of the priority areas is to create an appropriate microclimate by organization of such an educational environment that would encourage interaction, mutual trust; doing interactive exercises that allow students to get to know other participants better in the learning process; explanation of the purpose, technology, learning algorithm, the nature of expectations, which provides students with a sense of self-sufficiency; positive feedback, stimulating the efforts and students' achievements (Andreeva, 2019: 512; Tucker et al., 2017). Forms of work with the collective group in this aspect include the use of psycho-hygienic approaches in the institution practical activities to organize group cooperation of students in order to ensure maximum efficiency of the educational process (Brynzak, et al., 2021: 2560; Pukhno, Shcherbak, 2020: 119–920).

A special place belongs to the activation of the human factor and the focus of each professor and tutor to create a favourable socio-psychological microclimate in the collective group, in particular to mobilize the efforts of professors (Blinova, Ilnitskaya, 2019: 299; Lenchuk, 2017: 80–01). The above information indicates that psychohygienic diagnosis in the educational process is quite an urgent task for the teaching staff of higher medical education, because the organization system of the educational process provides certain rules, and behavioural reactions can be varied. Therefore, students must find their own independent solutions, which will naturally reveal their mental and socio-psychological characteristics. This is manifested in the emotional attitude to the learning process, the desire to identify personal roles in it, choosing ways to implement tasks, which is greatly facilitated by the low level of “conflict” in the group.

These issues raise the professional need of professors to take into account the psychohygienic aspects of educational and upbringing work in order to preserve the mental health of students (Strelnikov, 2013: 32–28).

Thus, research on the theoretical and methodological foundations of psycho-hygienic measures should become a basic component of professional training of professors of educational institutions as well as the acquisition of relevant skills required by practical pedagogical and psychological activities in various microsocal groups of higher education institutions (Shutak, Navchuk, 2014: 198).

The purpose of the research is the determination of the indicators of team building and the psychological microclimate assessment in student academic groups to develop measures for optimization of students' learning conditions.

2. Research methods

The research was conducted on the basis of the Department of Hygiene of Dnipro State Medical University using the sociometric method, which involves individual (anonymous) completion of the sociometric map (Lenchuk, 2017: 83; Strelnikov, 2013: 45–57). Diagnosis of the psychological microclimate in teams included the establishment of such indicators as: individual coefficient of student compatibility, group compatibility coefficient, the number of conflicts in the group and their characteristics, the personality of true leaders. The value of the coefficient of interpersonal compatibility ranged from 0 to 3 c.u. (0% and 100% respectively). These studies were obtained during 2015–2020 and conducting among third-year students in “Medicine” specialty. In total, 11 groups (163 respondents) participated in the research.

The results of the survey of 99% of students who studied in the five-year period observational groups were analyzed. The obtained results were processed using the methods of mathematical statistics.

3. Analysis of research results

Student academic group is a kind of small group with its stages of transformation into a collective group, with the parameters of development and criteria of formation, as well as the internal psychological microclimate [8]. Data from the analysis of sociometric maps show that the coefficient of interpersonal compatibility is 64% (on average) and it is estimated to be higher than average. The value of this indicator in all research groups ranges from 53% to 77%. At the same time, the group compatibility coefficient tends to decline in the dynamics of observations, namely: the degree of friendship among young men and women has decreased over the past 4–4 years by 1.5%. An interesting fact is that true leaders in cohesive groups have a high level of psychological compatibility – up to 90%, compared to leaders of other groups. Thus, less friendly student groups with a compatibility index of 53–39% have leaders who are supported by a much smaller number of respondents – 73–77%, respectively. On average, the true leader (informal) index is 83% for the whole five-year observation period. The personalities of true and formal leaders coincided in only two groups, that is 18.2% of the total number of observation groups. At the same time, formal leaders (heads of academic groups) began to lose their communication skills significantly, as their authority in the dynamics of time decreased on average from 93% to 73%. The heads in 18.2% of the collective groups, who took part in the research, had an individual compatibility coefficient – 1.25–5.3 c.u., which indicates a critical level of support, that is less than half of groupmates (42–43%).

There was not found any objects (of 11) of educational socialization without conflicts (56 cases in total). 35.5% of respondents had tense relations with their peers, and 7.5% of them had mutual contradictions with 2–2 students at the same time.

On the one hand, conflicts become an integral part of student's life where the process of modern student's socialization is accompanied by his psychophysiological development and takes place against the background of the society transformation, that creates new problems and complicates this process. Therefore, it is impossible to avoid conflicts, but there is a way to avoid their destructive impact on human interaction. It means learning to choose effective strategies for resolving conflicts that allow not only to constructively resolve emerging problems, but also to maintain interpersonal relationships. On the other hand, it should be remembered that a conflict situation does not necessarily escalate into a conflict. Therefore, students' interpersonal communication, acquisition of social interaction skills, increase of a social role set, expansion of ideas about one's own personality are important to prevent contradictions. This helps to analyze the situation, find a way out of it, taking into account the needs of opponents and return to constructive cooperation.

There is a special attitude to some young men and women (1–1 cases per group) with the lowest individual compatibility ratio – less than 1.5 units. This characterizes them as outsiders in the collective group. The share of such students is 12% of 163 respondents. It is worth emphasizing that the number of conflicts and the degree of peers' support were not always interrelated – these concepts have a broader meaning. However, there is a tendency to have a large number of conflicts between respondents in groups with a low level of interpersonal compatibility against the background of reducing the total number of conflicts in modern student groups.

The scientifically substantiated indicators of students' group life, which were obtained by means of researches, determined the development of emotional intelligence of the educational community and became the basis for the formation of a system of measures to create a favourable psychological microclimate, which had the following directions:

- formation of the formal group leader's psychological culture;
- setting an interesting, useful goal with the collective group's creative work required for its achievement, and the process creates empathy for its members;
- mastering business communication skills;
- organization members' high demands and trust to each other;
- friendly and business criticism;
- conducting a conflict prevention strategy;
- free expression of one's own opinion by members of the organization during the discussion of all group life issues;
- involvement of all classmates into the discussion and analysis of group's most important life issues;
- coordination of interests and needs of all group members;
- high degree of mutual assistance in everyday life and in stressful situations;
- students' sufficient awareness about all aspects of their inner life.

In addition, the peculiarities of psychological conditions in some collective groups were taken into account: prospects and self-esteem of each group member, individual self-awareness etc in order to maximize the effectiveness of preventive measures in the "self-organization architecture" of the academic group.

4. Psychohygienic measures

Measures to adapt young men and women to the social environment were implemented by:

- conducting practical and lecture classes for cognitive and educational purposes on:
 - the impact of psychogenic factors on mental health,
 - psychoprophylactic measures,
 - psychological conditions of educational development,
 - with the study of appropriate methods and active participation in their approbation;
- promulgation of positive research results in the relevant collective groups and discussion in the form of "Socratic dialogue";
- conducting personal interviews with students, when each of them got recommendations on reducing differences and increasing the level of sympathy among peers, choosing the right behaviour in the collective groups, minimizing conflict situations and reducing emotional tension among young men and women during their studies;
- conducting organizational and educational work involving students in mass educational and cultural events, to form a "team spirit", which is the source of inspiration, stimulus to overcome difficulties; this "team spirit" encourages friendly relations, gives a sense of satisfaction and understanding that efforts are justified;
- the work of the dean's office with the "risk group", which is aimed at solving the youth's adaptation problems in the student environment (psychological and social support);

Taking into consideration the most important stage of student socialization which is the learning process consisted of the formation of personality in socio-cultural space by mastering general cultural and social experience while education and training, the practical sense of controlling psycho-hygienic educational activities aimed at the increase of the

general and professional stability, as well as the adaptive capacity of the future doctor becomes important.

5. Conclusions

1. The psychological microclimate in the academic groups of higher medical educational institution in terms of social relations among students is mostly favourable. It is evidenced because of the fact that the average value of the coefficient of interpersonal compatibility is 64%. In addition, a significant average index of a true leader (83%) indicates the existence of authoritative young people who are able to organize, unite, interact and develop, coordinate and provide interpersonal contacts with other members of society, as well as to choose optimal and effective solutions of certain problems.

2. At the same time, we have identified a number of problems of interpersonal relations. For instance, more than a third of young men and women of modern academic groups are involved in conflicts; there is a decrease in the compatibility index of elders by 20% in the dynamics of the 5-year period, while there is a critical level of this indicator for the formal leader (42–23%) in some groups; the “risk group” is quite numerous among student youth, which includes students who have conflicts with several groupmates (7.5%) and do not have sufficient support (outsiders, 12%). This situation causes a restriction or cessation of communication and interpersonal interaction, dissatisfaction with the results of joint work. Thus, it slows down the solution of a number of collective group problems, negatively affects the conditions and effectiveness of the educational process.

3. The use of reasonable student’s psychological “portrait” in the microenvironment, which has been generated by the system of informal relations, spontaneously formed at the level of semi-conscious psychological advantages and disadvantages, is of practical importance and allows predicting his personal potential in future educational, social and scientific activities. The use of this technique in the system of psychohygienic monitoring makes it possible to monitor the dynamics of personality development and psychological microclimate in the team. Also, it helps realize measures in order to form key professionally significant characteristics and personality traits of a future doctor, means of communication among young people, modelling the styles of formal leaders’ managerial behaviour; and it can be used in the educational work of educational institutions of different levels of accreditation, namely medical.

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PROFESSIONAL TRAINING OF FUTURE TEACHERS IN BASICS OF HEALTH CARE

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Summary

The purpose of the research is to explore the state of theoretical and practical training of future teachers in formation of skills and knowledge for schoolchildren's health preservation. To implement the research goal, the following tasks have been set: to establish the state of scientific exploration for the problem of forming health preservation competence in psychological-pedagogical research works; to reveal the situation with training future teachers in formation of skills and knowledge for schoolchildren's health care. To perform the said tasks, the following methods of research are applied: theoretical – analysis of academic sources and literature on the problem of forming health preservation competence in future teachers and healthy lifestyle in schoolchildren; empirical – questionnaire-based survey and mathematical analysis of the obtained results.

As a result of the research, the issue of training future teachers in schoolchildren's health care has been highlighted. Theoretical-methodological aspects of training future teachers for health preservation activities at institutions of comprehensive secondary education have been revealed. The practical importance of forming healthy lifestyle in future teachers in the course of studying medical and biological subjects has been demonstrated. The research involved a questionnaire survey of higher education applicants at the Bachelor level which focused on issues of forming health preservation competence, professional knowledge, skills and habits of maintaining healthy lifestyle for schoolchildren.

Keywords: health, healthy lifestyle, health preservation technologies, student, schoolchild.

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1. Introduction

The most important task of modern schooling is to bring up a healthy generation having a conscious attitude to their own health and the health of others. At the legislative level, it is regulated by the Laws of Ukraine "On Education", "On Complete General Secondary Education", the National Doctrine for Development of Education in Ukraine in the 21st Century, and the State Program "Children of Ukraine." That is why updating the contents of education, commitment to the new type of pedagogical thinking, forming an ontological-preservation

worldview in the new generation, establishing ethical values in the system of relationships “nature-society-person” – all these and other challenges of the 21st century should undoubtedly influence the professional and personal qualities of a future teacher.

The process aiming to form a certain health culture, habits of healthy lifestyle, and a careful attitude towards one’s own health should begin at the primary school age. According to statistics, a significant number of schoolchildren have unsatisfactory physical fitness, which is caused by heavy academic workload, intensive introduction of information and communication technologies, disruption of work and rest schedule, reduced physical activity and failure to maintain a healthy lifestyle.

The relevance of the said problem is related to deterioration of schoolchildren’s health which raises concerns both among doctors and educators. Reformation of schooling without taking into consideration the health conditions of schoolchildren has substantial effects on their illness frequency. Information overloads, stressful situations, modernization of the educational process – all of these cause a lot of tension for the child’s body, and along with other negative factors (reduced physical activity, subject-based system of education, insufficient natural lighting, school furniture incompliance with sanitary requirements, improper nutrition) it leads to functional disorders that over time result in formation of an organic pathology. At the same time, educational activities are not adapted to the peculiarities of development and health of present-day schoolchildren, teachers lack training to form, maintain and strengthen children’s health, while families and schoolchildren alike retain a passive attitude in matters of personal health.

The concept of the New Ukrainian School is aimed to form competences required for successful self-actualization of a person in the society. The pedagogical community of Ukraine should direct their activities to providing future teachers with certain knowledge and train them on how to find the widest field possible for application of such knowledge. In this connection, an important part in professional training of a modern teacher should be the formation of health preservation competence in schoolchildren. In accordance with the specific nature of pedagogical activities, teachers themselves can apply a set of educational and upbringing resources to organize a certain health preservation interaction in educational establishments, based on pedagogical design, in order to completely solve the problem of preservation and promotion of physical, mental and social health of schoolchildren, and form their health preservation competence. All these tasks require teachers to look for new pedagogical approaches and use special methodologies that would facilitate preservation of children’s health and form their healthy lifestyle habits.

In modern education, children’s health is formed on the basis of various approaches. One of the key approaches is the competence-based one, according to which education should result in the schoolchild’s acquisition of health preservation competence, that is, of the qualities that are aimed at the preservation of one’s health and the health of others.

Practical implementation of the task to create a health preservation living space for a child depends primarily on the teacher, by whose efforts the process of learning any subject should become an integral part of a schoolchild’s way to health preservation.

Hence, the teacher as the main organizing factor behind the educational process can systematically and most effectively influence the development of their pupils and facilitate formation of their health preservation competence.

One of the essential aspects in solving the problem of child and teenage health through education is the training of a highly educated and competent teacher who is an active advocate of valeological knowledge and skills among pupils of secondary education establishments, in

addition to the educator's recognition of personal responsibility for preservation of their own health. These days, an educator is facing an important task – to form a healthy worldview in their pupils, teach them to mobilize the internal resources of their body and achieve self-perfection through self-knowledge (*Amosov, 1990: 6*).

The problem of professional training of teachers has been the focus of attention for a number of research works by Ukrainian and foreign authors. In particular, professional training of teachers at higher education institutions in the field of health protection and promotion was the subject of research conducted by G. L. Apanasenko, T. Ye. Boychenko, V. I. Bobrytska, E. G. Bulych, S. S. Volkova, O. D. Dubogai, S. S. Krokmal, I. V. Muravov, V. M. Orzhekhovska, V. M. Pavliuk, S. I. Sytnyk, A. V. Tsarenko and others.

Determining the set of favourable and unfavourable factors that affect schoolchildren's health enables us to develop, substantiate scientifically and implement a concept for management of children's and teenagers' health. In this connection, training of future teachers in basics of forming a healthy lifestyle envisages building profound theoretical knowledge and the skill of implementing it into practice.

The *purpose of the research* is to explore the state of theoretical and practical training of future teachers in formation of skills and knowledge for schoolchildren's health preservation. To implement the research goal, the following *tasks* have been set: establish the state of scientific exploration for the problem of forming health preservation competence in psychological-pedagogical research works; reveal the situation with training future teachers in formation of skills and knowledge for schoolchildren's health care.

To perform the said tasks, the following *methods of research* are applied: theoretical – analysis of scientific sources and literature on the problem of forming health preservation competence in future teachers and healthy lifestyle in schoolchildren; empirical – questionnaire survey and mathematical analysis of the obtained results.

Hence, the timeliness and relevance of exploring this problem are determined by the need to solve certain contradictions: theoretical improvement of the contents, forms and methods of forming health preservation competence of schoolchildren and practical implementation available in the process of their realization for ideas of subjectivity, practical orientation and health preservation; considerable opportunities of school health preservation environment as a factor in formation of a schoolchild's personality, and the demand of society for competent teachers capable of building a kind of health preservation interaction at institutions of comprehensive secondary education.

Therefore, the problem of training a teacher capable of developing schoolchildren's health preservation competence remains insufficiently explored both in the theoretical and methodological aspects which has a substantial effect on practical activities of educators.

2. Theoretical-methodological aspects of training future teachers for health preservation activities

Theoretical and methodological grounds for the problem of health, healthy lifestyle, and formation of health preservation competence have been highlighted in research works in the field of pedagogics, psychology, medicine, philosophy, school hygiene, valeology, life safety, physical education and sport. Conceptual grounds of pedagogical science concerning the essence and principles of valeological education and formation of healthy lifestyle are explored in the works by such scientists as V. Bobrytska, D. Davydenko, L. Drobot, S. Kondratiuk, K. Kuper, S. Lapaienko, N. Maksymova, V. Orzhekhovska, A. Zdravomyslova, L. Sushchenko and others.

Psychological and pedagogical research concerning formation of a person's health culture and their health preservation competence was conducted by M. Bezrukikh, V. Bezrukova, N. Bibik, T. Boychenko, Ye. Vainer, V. Gorashchuk, O. Dubogai, G. Zaitsev, O. Ionova, S. Kyrylenko, S. Kondratiuk, O. Omelchenko, S. Omelchenko, O. Savchenko, G. Sierikov and others.

Analysis of psychological-pedagogical and methodological literature on this topic – in particular, the research works by O. Antonova, N. Polishchuk, G. Zhara, A. Zubko, N. Vasina, O. Matafonova, A. Moskaliova, E. Shatrova– gives us sufficient grounds to state that effectiveness of pedagogical activity in the field of schoolchildren's health preservation and promotion depends directly on the level of corresponding training of their teachers.

Analysing the international practices and Ukrainian prospects of competence-based approach in modern education, the authors of collective monograph "Competence-based approach in modern education: International experience and Ukrainian prospects" (2004) under the general editorship of O. Ovcharuk have drawn special attention to health preservation competence as one of the key competences of a person that has to be formed in every personality to ensure their productive and creative life. In particular, O. I. Pometun views it as the basis for human living, where the main element is recognizing the importance of health and healthy lifestyle for the entire life-sustaining activity of a person aimed to preserve physical, social, mental and spiritual health – one's own and that of others (*Pometun, 2004*).

The noospheric pedagogical paradigm is inseparable from health-promoting education. This is pointed out in the Strategy for Sustainable Development "Ukraine 2020" where special attention is paid to human health and life safety, programs for lifestyle and longevity are developed, physical culture and sport are popularized, and health preservation technologies are implemented.

The part of key competences related to health preservation in the interpretation of its social aspects is envisaged in recommendations of the European Parliament and of the Council of Europe of 20 December 2006 "On Key Competences for Lifelong Learning." The abovementioned recommendation emphasizes that the competence "related to personal and social wellbeing requires an understanding of how people can ensure optimal physical and mental health, including as a resource for themselves and their families and their social surrounding, and the knowledge of how healthy lifestyle can promote it. For successful interpersonal and social participation, it is important to understand the rules of behaviour and manners accepted in various societies and conditions. It is equally important to be aware of the main notions that are related to specific persons, groups, working organizations, gender equality and non-discrimination, society and culture. Understanding of multicultural and social-economic aspects of European societies and peculiarities of interaction between national-cultural identity and the European identity is also significant. Key skills of this competence include ability to communicate in a constructive way in various environments, show tolerance, express and understand different viewpoints, negotiate with building trust and compassion. Competence is based on relations of cooperation, confidence and integrity. People should be interested in social-economic processes and intercultural communication, value variety and respect others, and be ready to overcome superstitions and make a compromise" (*Recommendation, 2006*).

In the works by Ukrainian scientists concerned with implementation of competence-based approach, the group of key competences includes the so-called health preservation competence. Various sources and literature give ambiguous interpretations of this definition. In particular, researchers O. Plakhotnik and O. Beznosyuk, who studied the issue of competence-based approach in higher education institutions, emphasize formation of valeological-healthful competence in future teachers (*Plakhotnik, 2013:200*).

In the opinion of T. Ye. Boychenko, competence is a complicated integrated characteristics of a personality which is understood as a set of knowledge, skills, and attitudes that enable a person to engage in activities effectively or perform certain functions, thus ensuring solution of problems and achievement of certain standards in a profession or an activity. The scientist defines health preservation competence as a key one and suggests to recognize its characteristics as follows: multifunctionality that allows to solve problems of health preservation in the plane of the four elements of health – physical, social, mental and spiritual; supersubjectivity and interdisciplinarity (information about forming, preserving, promoting, using (or consuming), restoring and transferring health takes place within every element of the continuous valeological education –at the preschool stage, school stage, pre-graduate stage, postgraduate stage, and adult education stage); multidimensionality which is determined by the essence of human health being a multidimensional and holistic phenomenon (*Boychenko, 2008: 6-7; Boychenko, 2009*).

Health preservation competence suggests preservation of one's own physical, social, mental and spiritual health, and the health of one's surrounding. Having accentuated health preservation competence in the group of competences concerned with the human being as a personality and a subject of activity and communication, another scientist I. Zimnyaya specifies that it should include as follows: knowledge and adherence of healthy lifestyle standards, awareness of the harm caused by smoking, alcoholism, drug addiction and AIDS; knowledge and adherence of personal hygiene standards, and home hygiene; physical culture, freedom and responsibility of choosing a lifestyle to follow (*Zimnyaya, 2006: 21*).

A theoretical model of health preservation competence, its structure and contents are presented in the research work by E. Shatrova and E. Finogenko. Researchers concur that health preservation competence envisages a person's ability to understand, explain and regulate their own state, behaviour and lifestyle in order to preserve health, quality of life and environment (*Finogenko, 2008*). From the point of view of O. Shatrova (*Shatrova, 2012:112*), the health preservation competences should be viewed as an integrated quality of a personality expressed in overall ability and readiness for health preservation activity based on the integration of knowledge, skills and experience.

The most substantial interpretation of theoretical foundations for formation of teacher's individual competence of health preservation in the present-day system of lifelong learning was presented in the scientific heritage of G.I. Zhara. Basing on analytical researches, the scientist explores the content-related characteristics of individual health preservation of a teacher in two aspects: as a quality, and as a process. Individual health preservation of a teacher (as a quality) is an integrated quality of a teacher as a professional unit capable of creating, preserving and maintaining physical, mental, emotional and energetic balance in conditions of the educational environment while preventing professional burnout and achieving active longevity. Individual health preservation of a teacher (as a process) is a process of physical, mental, social and energetic adaptation of a teacher to conditions of the educational environment, where high-quality energetic-informational and psycho-emotional exchange between subjects of the educational process is ensured. The quality of individual health preservation is acquired in the course of professional training of a future teacher and can be developed during professional activity. In terms of procedure, individual health preservation is an obligatory component of professional activity and it can be improved and adjusted by the teacher themselves, depending on certain changes in conditions of the educational environment (*Zhara, 2017: 292*).

The state of the problem of teacher training for development of health preservation competence in schoolchildren is highlighted in the monograph "Preparing a teacher to development of health preservation competence in pupils" (2016) written by O. Ye. Antonova

and N. M. Polishchuk. The researchers presented a model, and authors' program of training a teacher within the system of post-qualifying pedagogical education for development of health preservation competence of secondary school pupils, substantiated a structure of teacher's readiness for this type of activity, and defined the criteria, indices and levels of such readiness (Antonova, 2016).

Analysing the structure and contents of health preservation competence of pedagogical university students, scientist O. Yugova views health preservation competence as a complex of systematic knowledge and ideas about positive and negative changes in the state of one's health and the health of others; the skill of drawing a program for preservation of one's health; knowing how to organize activities in promotion of health and health preservation (Yugova). A. Busygin sees the notion of "health preservation competence" as an ability to mobilize a system of knowledge, skills, intellectual and personal qualities required to form motivation for health preservation, and the ability to predict, prevent or compensate for loss of health, seeing all these as ways to satisfy basic human needs (Glebova, 2008: 98).

In the dissertation research by D. Ye. Voronin, dedicated to formation of health preservation competence in students of higher educational institutions by ways of physical education, the author specifies that health preservation competence is an integral and dynamic feature of a personality that is manifested in the ability to organize and regulate one's health preservation activity; to assess properly one's behaviour as well as actions and views of others; preserve and implement one's own health preservation opinions in various conditions, including unfavourable circumstances (Voronin, 2006: 52). In this connection, the notion of "health preservation competence" can be formulated as a certain level of medical and valeological literacy of a student, a state of social wellbeing, a stage in development of creative, physical, mental and intellectual abilities of a person that are expressed in organization of one's life-sustaining activities, in one's attitude to oneself, other people, and nature. Developing this idea, D. Ye. Voronin claims that health preservation competence suggests not only medical and valeological awareness, but also the ability to put the knowledge into practice, and the skills in applying methods of health promotion and disease prevention. Forming one's thinking in the direction of health preservation and promotion is an integral component of health preservation competence for future specialists (Voronin, 2006: 28).

The notion of "health preservation competence" suggests a complex of physical and intellectual abilities and qualities of a person required to solve various life problems independently and effectively, to create better conditions for oneself and one's health in a constructive interaction with others. In the opinion of N. V. Tamarskaya, the essence of the notion "health preservation competence" is manifested through conducting preventive activities and applying health preservation technologies by people who know objective laws of the health preservation process (Tamarskaya, 2002: 11). N. F. Denysenko notes that in order to form one's health, a person needs to have a clear understanding of how it is built, preserved and damaged, and be aware that health depends on many factors including relationships within a family (Denysenko, 2007: 9; Denysenko, 2009: 7).

For V. Khymynets, the notion of "health preservation competence" means characteristics and qualities of a student meant to preserve one's physical, social, mental and spiritual health – and that of other people around them (Khymynets, 2010). A similar opinion concerning formation of health preservation competence is shared by I. Anohina. She views formation of health preservation competence as the readiness to independently solve the tasks related to maintenance, promotion and preservation of health – one's own health, and the health of others (Anohina, 2007: 25)

With consideration of the intensive influence on the part of many risk factors typical for the teaching profession, there is a need for teachers to have a solid foundation to be able to adapt to the changing socio-cultural conditions – and that foundation is the health preservation competence. As teachers should be an example of creative life to form cultural and value-related mindsets of the new generation, professional teacher training requires its health preservation component to be redirected towards sustainable development. As specified in the Concept of the National Program “Health 2020: Ukrainian Dimension”, “healthy lifestyle of the population is five times as effective as treatment and diagnostic activities related to people’s health preservation and promotion” (Zhara, 2017: 285-286).

Taking into consideration the abovementioned facts, we believe that a teacher’s training in formation of health preservation competence of schoolchildren should include the following aspects: 1) conceptual basics of knowledge about modern health, development of mental and physical health culture; 2) inuring healthy lifestyle (psychological, pedagogical, medical and hygienic aspects); 3) safe conduct skills; 4) cultivating health-building, health-preserving, and active behaviour; 5) operating knowledge about health and its components; 6) forming a person’s value-related attitude to the environment, other people, and themselves; 7) possessing methods for comprehensive assessment of one’s health condition and a system of practical knowledge and skills to ensure health preservation and promotion; 8) using self-correction and self-regulation skills, health preservation and promotion knowledge; 9) possessing methods and skills of providing first aid; 10) being able to practice injury prevention.

Just as any other kind of competence, the health preservation competence has a certain structure. Analysing the structure and contents of health preservation competence, scientist O. Yugova distinguishes three of its components: content-related, activity-related, and personality-related. The content-related component envisages that a personality possesses knowledge in a certain subject as well as in adjacent subjects that expresses the quintessence of the specialty (conceptual competence) which is explored by such student. Examples may include subjects that are studied in a consecutive manner – developmental anatomy and physiology, basic medical training (or basic paediatrics and hygiene) – and basic life safety is the subject that completes formation of the corresponding competence. The activity-related component encompasses invariant professional knowledge in health preservation which also includes practical skills (working knowledge): a complex of practice-oriented classes (workshops, laboratory courses, practical trainings, case study, role-play and simulation exercises etc). The personality-related component is characterized by integrated personal qualities which are manifested through presence of inborn abilities to study and acquire knowledge by oneself, that is, the skill in working on one’s own with textbooks and academic literature (writing reports, reviews, participating in research work etc). A student is supposed to not only possess a certain kind of intellect, but to know how to use it appropriately in various situations.

Based on the abovesaid, high-quality training of future teachers appears to be a field of strategic importance, and its implementation should be the focus of attention and the top priority area for education, recreation and physical culture, as the state of every child’s health and their healthy lifestyle depend largely on these factors. That is why restoring the importance of physical education, reducing children’s illness frequency, promoting health, improving physical and mental preparedness, developing creative abilities and skills of independent academic cognition and self-study are of great relevance for improving the level of professional training of education specialists at the present-day stage.

Hence, analysis of academic literature dealing with the problem of health preservation has enabled us to formulate the basic notion of “health preservation competence” as an

integrated quality of a personality that is manifested in their overall ability to pursue health preservation activity which is based on integration of knowledge, skills, practices and value-related attitudes of a personality aimed to preserve physical, social, mental and spiritual health of such personality and other people around them.

3. Assessing the level of training future teachers for health preservation activities

It is possible to form a healthy lifestyle in future teachers at pedagogical higher education institutions in the course of studying medical and natural sciences if their activities in acquisition of knowledge and skills for rationalization of life-sustaining activities are organized in accordance with their field of specialization. This is ensured by the interconnection of learning, cognitive, research, exploration, and practical teaching activities of future educators that creates a foundation to enable students to search for a personally attractive, professionally significant and socially important meaning in the contents of the natural science subjects, and causes the students' individual program of self-education and self-actualization to coincide with the objectively determined program of personal and professional development (*Bohdanova, 1998: 56*).

Forming basics of healthy lifestyle in students working under the bachelor's degree curriculum is envisaged by the academic program – the document that determines the norms of contents, duration of the course, and forms of state attestation for specialists of certain education standards. Integrated education plans for teacher-training institutions have received a compulsory pre-requisite subject – valeology. It allows students to acquire a necessary volume of fundamental valeological knowledge in the field of forming, preserving and promoting health. In addition, the system of modern professional training of future teachers in the area of schoolchildren's health places special emphasis on studying such subjects as developmental physiology and school hygiene, ecology, psychological hygiene, and basics of life safety.

Organization of the educational process in higher education institutions sets certain requirements for students, and this causes their previous experience acquired within the school education system to become incompliant with the new conditions. Students master new methods of performing their activities, join in a new way of living, and adopt the different forms of organization of their educational work throughout a lengthy period of adaptation. It is evident that students' skills in overcoming difficulties of the adaptation stage (which may encompass one or two terms) can determine not only their academic progress and further identification with their profession, but also their health conditions (*Bondarenko, 2012*).

Another factor that entails changes in students' lifestyle is the complex of social and psychological problems connected with their adoption of a new social role and slightly modified forms of individual and group behaviour. This aspect reflects an individual's psychological readiness to actively join in the life of a student group (department, college, university), become its full-fledged member, a creator of moral standards and ways of self-expression and self-affirmation within a newly-created collective.

Summing up the abovesaid, we can distinguish the factors that can affect students' health in the course of their academic activities: requirements to absorb large volumes of information; permanent load on certain functional systems of their bodies; lack of skill in organizing academic activities in a rational way that results in eating and sleeping disorders and therefore affects the students' academic progress and health conditions; poor recreation culture characterized by choosing passive forms to organize their free time over active forms of leisure.

The search for most effective and adequate ways to influence health conditions of future teachers suggested development and scientific substantiation of simple and available practices, techniques, methods, and correctional methodologies, the main criterion for the relevance of their application being not only positive effects on students' health conditions at the stage of their professional training, but also their potential to form a course of action that would ensure effective professional activity in the future. With this consideration in mind, the health preservation technologies that are most appropriate for development of a rational way to organize an intellectual worker's life have been defined to include as follows: methods for assessment, self-control and rehabilitation of intellectual work capacity during academic studies; methods for rehabilitation of intellectual work capacity during free time; methods for correction of the functionality of the visual system and auditory analyser; methods to improve the mental health and reduce nervous tension; other tonic aids that improve stress resistance; a system of actions to organize a proper day regimen; sensible nutrition.

A research to study preparedness of future teachers to forming healthy lifestyle was conducted on the basis of Hryhorii Skovoroda University in Pereiaslav among students of natural sciences. For the purposes of the research, two groups were created: an experimental group of 46 students and a control group of 42 students.

In the course of the research, a survey was conducted to explore the students' observation of healthy lifestyle basics. The results we have obtained indicate that the number of future teachers who combine their cognitive interests with acquisition of professional knowledge and skills in rationalization of their own lives and lives of other people while studying natural sciences comprises 34.5 % of the control group and 42.8 % of the experimental group. They believe that success in forming a rational pattern of living depends on one's professional competence and personal attitude to healthy lifestyle values, one's own activity in forming one's character, perseverance, and consistence required both for improvement of the already formed behavioural stereotypes and for everyday teaching work.

For students who find the subjective essence of studying at a pedagogical higher education institution in merely acquiring higher education, the task to understand the logic of studying natural sciences as a component of their professional education is almost never implemented. The share of such students makes 17.5 % in the control group and 7.2 % in the experimental group.

Based on the analysis of data obtained from the research, the dynamics in changes of value-related attitudes to healthy lifestyle has been identified, and the levels of preparedness of future teachers to programming and acquiring experience in adoption of healthy lifestyle standards as a lifelong and professional prospect have been defined.

It is characteristic that the number of students whose innate features include adoption of healthy lifestyle values, a conscious desire to adjust the already formed behaviour stereotype, aspiration to gain experience in improving one's life-sustaining activities in the long-term prospect, and a professionally motivated attitude to natural sciences has grown considerably in the experimental group in comparison with their initial figure, from 15.5 % to 42.9 %. Another noticeable tendency is the reduced number of students in the experimental group who only had occasional interest in advantages of healthy lifestyle, lacked desire to rationalize their current lifestyle, and needed external stimuli for their health-promoting activities: throughout the experiment, their share dropped from 16 % to 10.2 %.

As demonstrated by our research, systematic practical trainings involving use of health-promoting technologies help students to self-actualize, learn to control their emotions, behaviour,

identify their own psychophysiological state, degree of fatigue, and achieve harmony between their bodies and souls.

One of the areas of training students in health preservation of schoolchildren is when they deal with practical assignments as a part of their teaching practice. During the practice, students explore the conditions of upbringing and teaching in comprehensive schools, and conduct valeological analysis of lesson organization patterns, study regularities in how the abovesaid conditions influence schoolchildren's academic progress and intellectual capacity, begin to master health-promoting methods of teaching, and assess schoolchildren's physical development and health. Basing on the results obtained from the research, recommendations are developed on creation of proper valeological conditions in organizing the education process and the use of health preservation technologies in teacher's activities.

As evidenced by the survey we have conducted, during their teaching practice students mastered methods of implementing health preservation technologies in institutions of comprehensive secondary education, which facilitated an increase in the practical component of their health preservation competence. Accordingly, their level of knowledge has improved by 28.2 % in comparison with the figure they showed before undergoing their teaching practice (61.4 %), and now it equals 89.6 %. This figure corresponds to the high level of professional training of future teachers in health preservation of schoolchildren.

Therefore, in the present-day conditions of intensified learning, there is an urgent need to train teachers in implementation of health preservation technologies into the education process. At the same time, this implementation should be viewed as a blend of creative and practical activity aiming to use valeological knowledge and skills in an active, conscientious and purposeful manner to ensure harmonious development of a personality.

4. Conclusions

Analysis of academic literature dealing with the problem of health preservation has enabled us to formulate the basic notion of "health preservation competence" as an integrated quality of a personality that is manifested in their overall ability to pursue health preservation activity which is based on integration of knowledge, skills, practices and value-related attitudes of a personality aimed to preserve physical, social, mental and spiritual health of such personality and other people around them.

We have established that the notion of "health preservation competence" is closely connected to such notions as "health preservation technologies" and "health-promoting technologies." Accordingly, we have explored various interpretations of these notions given by other researchers and proved that the notion of "health preservation technologies" encompasses all areas of activity of a comprehensive educational institution concerned with formation, preservation and promotion of health.

The analysis of academic literature we have conducted to explore implementation of a methodology employed to forms health preservation competence in schoolchildren shows that in practice this work is performed only episodically. Meanwhile, most teachers understand the importance of forming healthy lifestyle in schoolchildren, but they lack proper command of methodologies applied to ensure health preservation for schoolchildren.

It has been established that future teachers' mastering of health preservation technologies during their teaching practice at education establishments promotes improvement of their professional knowledge and helps schoolchildren form basic skills in health care and acquire profound knowledge in basics of healthy lifestyle.

The prospects for further research in this field consist in concretization and effectiveness of pedagogical conditions that will exert a targeted influence on forming schoolchildren's health preservation competence, particularly the step-by-step implementation of the methodology to form their health preservation competence and organize a health preservation environment to help schoolchildren to consolidate the life skills that facilitate physical, social, mental and spiritual health.

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FEATURES OF REPRODUCTIVE FUNCTION IN WOMEN WITH MISCARRIAGES

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Summary

The aim of the study was to analyse the reproductive function of women with miscarriages among the population of Lviv region. The data of the results of medical and genetic counseling of 120 women with miscarriages who visited the medical and genetic center and the “Institute of Hereditary Pathology of the National Academy of Medical Sciences of Ukraine” were analyzed. The obtained indicators were compared with similar parameters of the control group: 80 healthy women who asked for family planning consultation. A group of women with miscarriage was formed to study the features of menstrual function, somatic, reproductive and gynecological history in comparison with similar indicators in healthy women. It was found that the majority of women (47 (39.2%) with miscarriages were aged 31–45 years and 74 (61.6%) of women by social status were employees. 52 (48.0%) women of the main group had the onset of menarche significantly later – after 15 years old, in 25 (20.8%) of them the duration of the menstrual cycle was 28–35 days and in 11 (9.1%) – 35–55 days ($p < 0.05$). Women with miscarriages were significantly more likely to have a complicated somatic history and these are 86 (71.7%), mainly due to pathology of the cardiovascular system – 27 (22.5%), against 43 (53.75%) and 9 (11, 2%) ($p < 0.05$), respectively. All of them 120 (100.0%) had significantly more frequent complications of reproductive and gynecological history due to miscarriages and stillbirths. In the control group this figure was 11 (13.7%) and 19 (23.8%) respectively ($p < 0.05$).

Keywords: pregnancy, miscarriage, reproductive function.

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1. Introduction

Despite the constant improvement of medical technology and improving the quality of obstetric and gynecological care in health care facilities, the incidence of spontaneous pregnancy loss does not tend to decrease. The current number is from 10% to 30% of all clinically diagnosed pregnancies (*Veropotvelyan PN, 2017; Vorobiova II et al., 2017*). In the structure of miscarriage, the share of habitual miscarriage is from 5% to 20%. According to the literature, 75–80% of pregnancy losses occur in the first trimester (*Garrido-Gimenez C, Alijotas-Reig J., 2015; Roumandeh N. et al., 2018*).

This pathology continues to be the main cause of reproductive losses and is one of the most pressing problems of modern medicine in Ukraine and other countries (Kamins'kij V.V. et al., 2018; SHCHerbina M.O. et al. 2019).

It has been scientifically proven that the risk of subsequent miscarriage increases after two and three consecutive pregnancy losses (*De Krom G, 2015; Kutteh W.H., 2015*). Therefore, many national and foreign researchers consider the usual loss of pregnancy after two, but not three spontaneous losses (*SHCHerbina M.O. et al., 2019; Torchinov A.M. et al., 2017*). This approach allows to more effectively identify the causes and prevent miscarriage.

The main features in the pathogenesis of miscarriage are infections, neuroendocrine and hemocirculatory disorders, if genetic and anatomical causes are excluded (*Kamins'kij V.V. et al., 2018; Kutteh W.H., 2015; Rasmark Roepke E, 2019; Vorobiova I.I. et al., 2017*). However, the mechanism of their occurrence is not fully understood, which leads to low awareness of diagnostic research methods and insufficient effectiveness of many existing treatments (*Dobrohotova YU.E. et al., 2016; Lisova K.M., 2021*).

The motherhood and childhood are among the top priorities in the main state programs dedicated to health care in Ukraine. In addition, while 75% of pregnant women suffer from various diseases, maternal mortality remains four times higher than in the United States and Japan, and perinatal and infant mortality rates are almost twice as high as in European countries and the United States (*Andreeva MV et al. , 2014; Vovk IB, et al., 2012*).

Features of the gestational process and its results are largely determined by the state of the maternal organism, which depends on the state of reproductive function (*Veropotvelyan P.N., 2017*). Ukraine has joined international standards on reproductive health since 1995. The World Health Organization (WHO) has developed a "Risk Strategy" aimed at identifying the causes of various complications of pregnancy and childbirth, as well as finding ways to improve the effectiveness of maternity and childhood. Low levels of reproductive health, often due to somatic and gynecological diseases, in turn significantly contribute to high perinatal losses (*Andreeva M.V. et al., 2014; Mishchenko V.P. et al., 2016*).

In the structure of the causes of perinatal losses, one of the leading places is occupied by extragenital diseases of women. In 60% of women, extragenital pathology is the cause of obstetric complications (*Alijotas-Reig J. et al., 2013; Roumandeh N., 2018; Torchinov A.M. et al., 2017*).

Therefore, there is a need to improve the system of preconception prevention, effective forecasting and early diagnosis of perinatal complications in pregnant women with miscarriage. This will allow to create a high-risk group for perinatal pathology. It also requires appropriate awareness of the female population about the possible risks associated with impaired reproductive function.

As a result of this work, the factors of complications of reproductive function in women with miscarriage were identified. Based on that, a risk group of women was formed to develop a strategy to overcome the limited reproduction of the population.

The aim of the study was to study reproductive function in women with miscarriages.

To achieve this goal, the following tasks were set:

1. To form groups of women with miscarriage among the population of Lviv region.
2. Investigate the features of menstrual function, somatic, reproductive and gynecological history in women with miscarriages.

3. To analyze the risk factors for reproductive dysfunction in women with miscarriages.

2. Formation of the group of women with miscarriages

The selection of medical genetic counseling (MGC) cards for 120 women with miscarriages

who visited the Medical Genetics Center of the Institute of Hereditary Pathology of the National Academy of Medical Sciences of Ukraine, Lviv, for the period from 2019 to 2021. Cards of women with a clinical diagnosis of “Miscarriage” were selected according to the International Classification of Diseases-10 (O03-O03.9). The obtained results were compared with similar parameters of 80 women in the control group: women who sought counseling for family planning in the same period of time, and had no history of miscarriage. As a result of the performed work the data of menstrual function, somatic, reproductive, and gynecological anamnesis were studied. Statistical processing of the obtained results was performed using the application package “Statistica 7.0” and Excel 2013. Significance between different groups was investigated by Pearson’s test χ^2 . Differences were considered significant at a significance level of $P < 0.05$.

Distribution by age, social and family status and ordinal number of pregnancy in women with miscarriage

Analysis of medical records – MGC cards of women who had miscarriages, for a period of 3 years, showed a significant difference in the number of women aged 21–15 years and 31–15 years between the indicators of both groups ($p < 0,05$) (table. 1). Thus, in the main group it was 14 (11.7%) and 47 (39.2%), respectively. In the control group, there were more women under the age of 25–52 (40.0%) and fewer – aged 31–15–55 (18.6%) respectively. In other age categories there are no significant differences between the indicators of both groups ($p > 0.05$) (Table 1).

Table 1

Distribution by age, social and family status, ordinal number of pregnancies of women of both groups (n /%)

Indicators	Main group (n = 120)		Control group (n = 80)		Statistical indicators	
	n	%	n	%	χ^2	p
<i>Age group</i>						
16–20 years old	5	4,1	8	10,0	2,688	p>0,05
21–25 years old	14	11,7	32	40,0	21,758	p<0,05
26–30 years old	31	25,8	23	28,8	0,207	p>0,05
31–35 years old	47	39,2	15	18,6	9,354	p<0,05
More than 36 years old	23	19,2	2	2,6	1,190	p>0,05
<i>Social status</i>						
Civil servants	74	61,6	31	38,8	10,109	p<0,05
Housewives	33	27,5	27	33,7	0,893	p>0,05
Workers	11	9,2	12	15,0	1,605	p>0,05
Students	2	1,7	10	12,0	9,988	p<0,05
<i>Number of pregnancy</i>						
Pregnancy I	-	-	41	51,2	77,358	p<0,05
Pregnancy II	-	-	25	31,2	42,857	p<0,05
Pregnancy III	51	42,5	12	15,0	16,823	p<0,05
Pregnancy IV	43	35,8	2	2,6	30,585	p<0,05
Pregnancy V and more	36	21,7	-	-	29,268	p<0,05

Note: p is the statistical significance of differences in the indicators of the main group compared with the control group

Significant differences in the social status of women in both groups were found. Thus, 74 (61.6%) employees were most often noted in the main group.

There were 2 (1.7%) female students. At the same time, there were 31 employees in the control group (38.8%) and 10 female students (12.0%) ($p < 0.05$) (Table 1). There were no significant differences in the number of housewives and workers among women in both groups. In the main group there were 33 (27.5%) and 11 (9.2%), respectively, and in the control group – 27 (33.7%) and 12 (15.0%), ($p > 0.05$) (Table 1).

According to the results of the analysis on the number of pregnancies, significant differences were found in all data in both groups of women ($p < 0.05$) (Table 1). In the main group there were no women with first and second pregnancy. Third pregnancy was in 51 (43.5%), second – in 43 (35.8%), five and more – in 36 (21.7%) patients with miscarriage. In the control group, more than half of women were pregnant for the first time – 41 (51.2%), a third 25 (31.3%) – for the second time, 12 (15.0%) women had a third pregnancy, and 2 (2, 6%) – fourth ($p < 0.05$) (Table 1).

3. Characteristics of menstrual function in women of both groups

The study of menstrual function in women of both groups showed significant differences in the age of onset of menarche: in the main group that accounts for 44 (41.1%) women, the first menstruation took place at 12–24 years, and most women in the main group 52 (48.0%) noted menarche at the age of 15 years and more, ($p < 0,05$), (table 2). The beginning of menarche at the age of 11 or earlier was noted by 11 (10,3%) women and this indicator was higher in relation to the same indicator in the control group, but without statistical significance ($p > 00.5$, table 2). The majority of women (71 (91.0%)) in the control group began menarche at the age of 12–24 years, and only 9 (9.0%) had it at the age of 15 years and later ($p < 0.05$, Table 2)).

Table 2

Characteristics of menstrual cycle of women of both groups (n /%)

Indicators	Groups of patients		Statistical indicators	
	Main n=120	Control n=80	χ^2	P
1	2	3	4	5
<i>Age of menarche</i>				
Until 11 years old	11(10,3)	-	7,760	p>0,05
12–24 years old	44(41,1)	71(91,0)	53,282	p<0,05
15 and older	52(48,6)	9(9,0)	23,309	p<0,05
<i>Features of the cycle</i>				
Was formed immediately	98(81,7)	78(97,5)	11,395	p>0,05
After 6 months	13(10,8)	1(1,25)	6,772	p<0,05
After 12 months	6(5,0)	1(1,25)	1,999	p>0,05
Was not formed	3(2,5)	-	2,030	p>0,05
<i>Duration of menstrual discharges</i>				
3–3 days	77(64,2)	49(61,3)	0,175	p>0,05
5–5 days	40(33,3)	31(38,7)	0,615	p>0,05
9–90 days	3(2,5)	-	2,030	p>0,05

Completion of Table 2

1	2	3	4	5
<i>Duration of menstrual cycle (days)</i>				
21–14	29(24,3)	19(23,7)	0,005	p>0,05
25–57	52(43,3)	57(71,2)	15,086	p<0,05
28–85	25(20,8)	4(5,1)	9,706	p<0,05
35–55	11(9,1)	-	7,760	p<0,05
45–50	3(2,5)	-	2,030	p>0,05

Note: p – statistical significance of indicators' differences in the main groups compared to the control group

Analysis of these features of the formation of menstrual function in women of both groups showed significant differences in data on the age of onset of menarche: in the main group, the first menstruation before 11 years was 11 (10.3%) women; from 12–24 years – in 44 (41.1%), and the most significant proportion of women in the main group noted menarche at the age of 15 years and older – 52 (48.0%). In 71 (91.0%) women of the control group menarche began at the age of 12–24 years, and only 9 (9.0%) stated this fact at the age of 15 years and later ($p < 0.05$), (Table 2).

Data on the peculiarities of the menstrual cycle indicate that in 98 (81.7%) patients of the main group and in 78 (97.5%) women of the control group the cycle was established immediately ($p < 0.05$), table 2. In 13 (10.8%) women with miscarriage, the cycle was significantly more often established after 6 months, against 1 (1.25%) case in the control group ($p < 0.05$). The rest of all parameters were without significant differences ($p > 0.05$): in 6 (5.0%) women of the main group the cycle was established after 12 months, and in 3 (2.5%) – was not established at all. In 1 (1.25%) women of the control group, the cycle was established after 6 months, and women with menarche after 12 months in this group were not (Table 2).

In most women of both groups, the duration of menstruation was 3–3 days: 77 (64.2%) and 49 (61.3%), respectively. For 5–5 days, the menstrual cycle lasted in one third of women in each group: 40 (33.3) and 31 (38.7), respectively. Significant differences in the analysis of this indicator in women of both groups were not found ($p > 0.05$) (Table 2).

Significant differences in the duration of the menstrual cycle in women of both groups ($p < 0.05$). In 25 (20.8%) women of the main group – the duration of the menstrual cycle was 28–85 days, in 11 (9.1%) – 45–50 days. Significantly fewer women with miscarriages had this figure for 21–14 days – 29 (24.3%) women and – 25–57 days – 52 (43.3%) patients compared to women in the control group, most of whom – 57 (71, 2%) the duration of the menstrual cycle was 25–57 days ($p < 0.05$), (Table 2).

Somatic, reproductive and gynaecological anamnesis in women of both groups

Women in the main group were more likely to have a somatic history: 86 (71.7%) vs. 43 (53.76%) in the control group, with a predominance of cardiovascular disease – 27 (22.5%) vs 9 (11.2%), respectively, ($p < 0.05$), (table 3). No significant differences were found in individual indicators of the nosological spectrum of somatic diseases in both groups of women.

Analysis of reproductive history data showed that all 120 (100%) women in the main group had complications due to miscarriages and stillbirths ($p < 0.05$, table 3). Only 11 (13.7%) women in the control group had miscarriages among the complications of reproductive history.

Table 3

Somatic, reproductive and gynaecological history in women of both groups

Indicators of somatic anamnesis	Main group (n = 120)		Control group (n = 80)		Statistical indicators	
	Number of women		Number of women			
	n	%	n	%	χ^2	p
<i>Somatic anamnesis</i>						
<i>Without complications</i>	34	28,3	37	46,25	6,729	p<0,05
<i>Complicated anamnesis</i>	86	71,7	43	53,75	6,729	p<0,05
Pathology of cardio-vascular system	27	22,5	9	11,2	4,116	p<0,05
Pathology of the cardiovascular system + endocrine pathology	13	10,8	7	8,7	0,231	p>0,05
Endocrine pathology	15	12,5	9	11,2	0,071	p>0,05
Urinary pathology systems + endocrine pathology	9	7,5	5	6,2	0,115	p>0,05
Urinary pathology systems + chronic infectious diseases	18	15,0	9	11,2	0,578	p>0,05
Cardiovascular pathology systems + chronic infectious diseases	4	3,4	4	5,0	0,347	p>0,05
<i>Reproductive anamnesis</i>						
<i>Without complications</i>	-	-	69	86,3	158,015	p<0,05
<i>Complicated anamnesis</i>	120	100,0	11	13,7	158,015	p<0,05
Unauthorized miscarriages, Frozen pregnancies	115	95,8	11	13,7	138,742	p<0,05
Congenital malformations of the fetus	3	2,5	-	-	2,030	p>0,05
Stillbirth	2	1,7	-	-	1,347	p>0,05
<i>Gynaecological anamnesis</i>						
<i>Without complications</i>	-	-	61	76,2	131,655	p<0,05
<i>Complicated anamnesis</i>	120	100,0	19	23,8	131,655	p<0,05
Miscarriage	98	81,7	-	-	128,105	p<0,05
Uterine leiomyoma	7	5,8	7	8,7	0,627	p>0,05
Ovarian apoplexy	3	2,5	2	2,6	0,000	p>0,05
Cervical erosion	11	9,2	9	11,2	0,231	p>0,05
Ectopic pregnancy	1	0,8	1	1,3	0,084	p>0,05

Note: p is the statistical significance of differences in the indicators of the main group compared with the control group

Significant differences in gynecological data of women of both groups were found. All 120 (100.0%) women the gynecological history was complicated by miscarriage, in addition, 98 (81.7%) women had a history of miscarriage only in anamnesis, and 7 (5.8%) had uterine leiomyoma, 3 (2.5%) women had ovarian apoplexy, 11 (9.2%) – cervical erosion and 1 (0.8%) woman had a history of ectopic pregnancy.

7 (8.7%) women in the control group had a history of uterine leiomyoma, 2 (2.6%) had ovarian apoplexy, and 9 (11.2%) had cervical erosion. 1 (1.3%) – ectopic pregnancy. These indicators were not significant ($p > 0.05$, table 3).

From the analyzed social status, features of menstrual function, somatic, reproductive and gynecological history in women with miscarriage compared to healthy women living in Lviv region, we can draw the following conclusions. Significant differences were found in the comparison of the distribution of women in both groups by age ($p < 0.05$): the main group was dominated by women aged 31–15 years – 47 (39.2%). It was found that the majority of women with miscarriages by social status were employees – 74 (61.6%) ($p < 0.05$).

Analysis of menstrual function data showed significant differences in its indicators ($p < 0.05$): the age of onset of menarche in women of the main group was after 15 years old – 52 (48.6%), they were more likely to form menstruation after 6 months. 13 (10.8%) women were more likely to have a long menstrual cycle: 28–85 days for 25 (20.8%) and 35–55 days for 11 (9.1%) ($p < .05$). Women in the main group were significantly more likely to have a complicated somatic history and these are 86 (71.7%) women. 27 (22.5%) of women were more likely to have a complicated somatic history mainly due to pathology of the cardiovascular system. All researched women had a complicated reproductive history – 120 (100.0%) had miscarriages and complicated gynecological history.

4. Conclusions

1. Analysis of the social status of women in both groups showed that among the women of the main group the vast majority (47 (39.2%)) were aged 31–15 years old, and the minority of women 14 (11.7%) were 21–15 years old – vs 15 (18.6%) in the control group ($p < 0.05$). In terms of social status, the majority of women in the main group were employees compared to women in the control group: 74 (61.6%) vs 31 (38.8%), ($p < 0.05$).

2. Significant differences in the data of menstrual function of women from both groups were found. A significant proportion of women in the main group – 52 (48.0%), noted menarche at the age of 15 years. Menarche was observed at the age of 12–24 years old in the majority of women in the control group 71 (91.0%), and only in 9 (9.0%) – at the age of 15 years and older ($p < 0.05$).

3. Significant differences in the duration of the menstrual cycle in women of both groups were found. In 25 (20.8%) women of the main group the duration of the menstrual cycle was 28–85 days, in 11 (9.1%) – 25–57 days, in 11 (9.1%) – 35–55 days. In 57 (71.2%) of women in the control group, the duration of the menstrual cycle was 28–85 days ($p < 0.05$). There were no significant differences in other indicators of the duration of the menstrual cycle and the duration of menstrual discharge.

4. It was found that patients in the main group were significantly more likely to have a complicated somatic history (86 women or 71.7%). 27 (22.5%) women were significantly more likely to have a complicated somatic history mainly due to pathology of the cardiovascular system while in the control group there were 43 (53.75%) and 9 (11.2%) ($p < 0.05$), respectively.

5. Complications of reproductive and gynecological anamnesis were significantly more common in all patients of the main group. 120 (100%) women had complications due to miscarriages and stillbirths. In the control group this figure was 11 (13.7%) and 19 (23, 8%), respectively ($p < 0.05$).

Prospects for further research

In the future, further research is planned to determine the range of risk factors for reproductive dysfunction in women with miscarriages that affect the reproductive potential of the population of Lviv region. The research will help to develop a strategy to overcome limited population reproduction.

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MORPHOLOGICAL FEATURES OF TUMOR ANGIOGENESIS IN INVASIVE DUCTAL BREAST CANCER

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Summary

Personalized treatment of patients with invasive ductal breast cancer is one of the most pressing issues in modern oncology. Today, information on the human genome and molecular markers is used to targeted therapy and optimize treatment strategies. One of the molecular markers is abnormal tumor angiogenesis. PECAM-1, or CD31, may be a marker of this process.

The aim of the study was to comprehensively assess the morphological features and clinical significance of different types of tumors microvessels in invasive ductal breast cancer.

CD31 expression was assessed by positive vascular endothelial staining. Using antibodies to CD31 (Ab-1, JC70A, Thermo scientific), we investigated 86 cases of invasive ductal breast cancer. In histological specimens stained with antibodies to CD31, the density of microvessels and areas with strong vascularization, the presence of dilated and atypical dilated capillaries in the intratumoral and peritumoral stroma, the presence of structures with local endothelial lining were assessed. The number of dilated and atypical dilated capillaries, as well as structures with partial endothelial lining was estimated by the semi-quantitative method. According to the results of our study, we showed some differences in the severity of vascular density of the tumor in patients with invasive ductal breast cancer. No differences in microvascular density were found depending on the age of the patients, T and N stages. At the same time, higher values of microvascular density in the intratumoral stroma were noted at G3 degree of differentiation, in triple-negative breast cancer and at HER2/neu positive. The most significant from the prognostic point of view were the number of atypical dilated vessels and structures with local endothelial lining, as well as the presence of characteristic porous structures in loose softly fibrous unformed connective tissue of the peritumoral stroma. Angiogenesis, morphology of tumor vessels is important for prognostic value and this marker can be used to predict the course of invasive ductal breast cancer.

Keywords: microvessels, breast carcinoma, immunohistochemistry, prognosis, angiogenesis.

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1. Introduction

Breast cancer is one of the most commonly diagnosed cancers and the main cause of cancer death among women in the Western world (WHO, 2021; Parkin DM et al., 2005]. In 2020, breast cancer was diagnosed in 2.3 million women, with 685,000 deaths from the disease reported worldwide, despite improved approaches to diagnosis and treatment. According to the WHO, at the end of 2020, 7.8 million women were diagnosed with breast cancer in the last five years, which means that this type of cancer is the most common cancer in the world. The number of lost years of healthy life of women with this diagnosis in the world exceeds that of any other type of cancer in the female population. Breast cancer occurs in all countries of the world in women of all ages after reaching puberty, but in older age the incidence rate increases (WHO) (WHO, 2021). In the United States, the incidence of breast cancer is 300 thousand, in Europe – 458 thousand cases. In Ukraine, the incidence of breast cancer ranks 1st among all malignant tumors found in women. In 2018, there were 146,317 patients registered with an oncologist for breast cancer in Ukraine, the figure per 100,000 women is 762.1 (*Bulletin*, 2020).

Systemic treatment improves the recurrence-free and overall survival of patients with breast cancer (*EBCTCG*, 2005). Indications for systemic treatment are based on prognostic factors (Goldhirsch A et al., 2006], however, prognostic factors assess the risk of recurrence in a patient in the absence of systemic therapy and include age at diagnosis, histology and malignancy, tumor size, receptor status and lymph node status. Prognostic factors assess tumor susceptibility to specific treatments, such as estrogen receptor (ER) expression for endocrine therapy and human epidermal growth factor receptor 2 (HER2) overexpression / amplification for trastuzumab.

Prognostic factors are becoming increasingly important as the relative risk of dying from breast cancer is reduced through early diagnosis and improved treatment. In recent decades, a large number of studies have been conducted to study new prognostic factors based on the molecular characteristics of tumors in patients with breast cancer. Determination of genomic disorders that determine the development of the tumor, the degree of its malignancy, metastatic potential and rate of progression is a priority area of molecular genetic research in modern oncology. Therefore, molecular morphopathology, which takes into account the presence or absence of oncogenes and suppressors of tumor growth (molecular biological markers) in cells, is of paramount importance in the prediction of tumors. Differences in the expression of certain markers may explain why comparable in prevalence and histological structure of tumors differ in the aggressiveness of the disease. Determination of molecular biological markers in tumor tissue can provide additional information about the biological behavior of the tumor: its growth rate, ability to invade and metastasize, resistance to chemotherapy.

Angiogenesis is one of the key factors of tumor progression associated with the growth and metastasis of malignant neoplasms (Folkman J. 1976; Shen Y. et al., 2017; Liu H. et al. 2014). Currently, its assessment is considered an important marker of disease prognosis and susceptibility to anticancer therapy (*Şener E. et al., 2016; Kraby M.R. et al., 2017*). It should be emphasized that technical and methodological approaches to the study of angiogenesis in malignant neoplasms differ greatly among different researchers. Some authors prefer to quantify the activity of angiogenesis. In breast cancer, it was noted that high microvascular density in the tumor and high expression of vascular endothelial growth factor expression are more common in advanced tumors, in the presence of metastases to regional lymph nodes and correlate with an unfavorable prognosis (*Han Z. et al., 2015; Shrivastav S. et al., 2016; Kraby M.R. et al., 2017; Zhang S. et al., 2017*). However, it should be noted that not all researchers have found

correlations between angiogenesis activity and factors of tumor progression, including breast cancer (Mohammed Z.M. *et al.*, 2013; Chuangsuwanich T. *et al.*, 2014). It is believed that this may be due to the fact that the vascular network in the tumor is heterogeneous in its origin and morphology (Fukumura D. *et al.*, 2010; Birau A. *et al.*, 2012; Nagy J.A. *et al.*, 2012). That is why other researchers to assess the role of angiogenesis in tumor progression prefer not only the number of vessels, but also take into account the method of their formation, the degree of maturity, as well as features of morphology (Qian C.N. *et al.*, 2016). We believe that this approach to studying the features of tumor angiogenesis has a number of advantages, because it allows to assess not only prognostic but also predictive significance of different types of vessels, which is especially important given the lack of effectiveness of angiogenesis inhibitors in clinical practice.

Thus, given the high morbidity and mortality, breast cancer is an urgent medical and social problem. Individualization of treatment of patients with breast cancer is directly related to the definition of prognostic factors, including a comprehensive study of morphological features of different types of microvessels in tumors and their correlations with clinical, morphological and molecular biological factors in the prognosis.

The aim of the study was to provide a comprehensive assessment of morphological features and clinical significance of different types of tumor microvessels in invasive ductal breast cancer.

2. Material and methods of research

The material of the current research was the analysis of case histories, outpatient cards of dispensary observation of 193 patients with invasive ductal breast cancer who had specialized antitumor treatment on the basis of the Lviv Regional Oncological Treatment and Diagnostic Center in 2017. Clinical and pathological characteristics included age of patients, tumor size, lymph node status, stage, ER, PR, HER2 / neu status, without neoadjuvant treatment and distant metastases. Given that the research material was collected in 2017, according to national and international recommendations, the TNM classification of the seventh edition was used. In all cases, the diagnosis of invasive ductal breast cancer was verified histologically. Histological type of cancer was determined in accordance with WHO recommendations (*WHO Classification, 2019*). The degree of malignancy was determined by a modified scheme of P. Scarff, H. Bloom and W. Richardson (*Elston CW, Ellis IO., 1991*).

The mean age at diagnosis was 54.7 years (28 to 85 years). The II and III stages of disease were dominated in patients, which amounted to 89 (46.11%) and 64 (33.16%) observations, respectively. The first stage of the disease was diagnosed in 40 (20.73%) patients. As for the size of the breast tumor, the distribution was as follows: stage pT1 was diagnosed in 61 (31.61%) patients, stage pT2 – in 96 (49.74%) patients, stage pT3 – in 19 (9.84%) patients and stage pT4 – respectively in 17 (8.81%) patients. More than 50.0% of patients were diagnosed with pN1-pN3 lymph node involvement at the time of diagnosis. Determination of the degree of malignancy (Grade) and the distribution was as follows: G1 was observed in 16 (8.29%) patients, G2 – in 129 (66.84%) patients, G3 – in 47 (24.35%) and G4 – in 1 (0.52%) of the patient. After studying the clinical and pathomorphological information and dividing the sample into molecular subtypes according to the consensus of St. Gallen 2015 (*Coates AS *et al.*, 2015*) groups of observations were formed: luminal A subtype (79 cases); luminal B subtype (43 cases); Her2 / neu (39 cases); triple-negative (32 cases).

Histological examinations of the surgical material were performed using a universal light microscope Leica DM750 (Leica Microsystems GmbH). The research was carried out in compliance with the basic provisions of the “Statute of ethical principles of scientific medical research with human participation”, approved by the Declaration of Helsinki (1964-2013), ICH GCP (1996), EEC Directive № 609 (dated 24.11.1986), orders of the Ministry of Health of Ukraine № 690 dated 23.09.2009, № 944 dated 14.12.2009, № 616 dated 03.08.2012, approved by the Commission on Ethics of Scientific Research of the Danylo Halytsky Lviv National Medical University.

General histological processing of tissue samples of invasive ductal breast cancer was performed according to standard methods. Immunohistochemical studies (IHC) were performed in serial paraffin sections of tumor tissue using monoclonal antibodies. Incubation with primary antibodies was performed according to the instructions of the manufacturers, visualization of the IHC reaction was performed using the detection system DAKO EnVision + System with diaminobenzidine (“DAKO”, USA). The sections were stained with Mayer’s hematoxylin and encased in Canadian balsam. IHC study for CD31 (Ab-1, JC70A, Thermo scientific), estrogen receptor ER (monoclonal rabbit antibody, Clone SP1, Dako), progesterone receptor PR (monoclonal mouse antibody PgR 636, Dako Flex), c-erbB2 (monoclonal rabbit antibody) to Her2 / neu, Clone SP3, Thermo scientific) and Ki-67 protein (monoclonal mouse antibodies, clone MIB-1, Dako) was performed according to the manufacturer’s protocol with the necessary controls. Immunohistochemical in situ fluorescence hybridization (FISH) was performed on samples with Her2 / neu 2+ status.

Evaluation of immunohistochemical staining. Positive ER and PR expression was found when $\geq 1\%$ of neoplastic cells showed positive nuclear expression of any intensity (*Allison KH. et al., 2020*). ER and PR status were assessed according to the recommendations of the American Society of Clinical Oncology / College of American Pathologists (ASCO / CAP) for ER and PR IHR testing. The threshold between low and high nuclear expression of Ki-67 was set at $\geq 20\%$ of positive cells according to the Consensus of St. Gallen 2015. For Her2 / neu only membrane staining was considered, and more than 10% of strong membrane positivity was considered as positive (3+) Her2 / neu according to CAP recommendations.

CD31 expression was assessed by positive vascular endothelial staining. Using antibodies to CD31 (Ab-1, JC70A, Thermo scientific), we investigated 86 cases of invasive ductal breast cancer. Peri- and intratumoral areas were determined in the tumor stroma at low magnification ($\times 100$). Vessels located in tumor tissue were regarded as intratumoral. Vessels located outside the tumor, but not more than 2 mm from the edge – as peritumoral.

In histological specimens stained with antibodies to CD31, the density of microvessels and areas with pronounced vascularization, the presence of dilated and atypical dilated capillaries in the intratumoral and peritumoral stroma, the presence of structures with partial endothelial lining were also assessed. The number of dilated and atypical dilated capillaries, as well as structures with partial endothelial lining was estimated by semi-quantitative counting at a magnification of $\times 200$ (absent; single – no more than two in the field of view; multiple – more than two in the field of view) (*Bosari S et al., 1992*).

Statistical processing of the obtained results was performed using a personal computer, the statistical package Statistica® for Windows was used for data analysis. For all types of analysis, differences were considered significant at $p < 0.05$.

3. Results of the research and their discussion

After studying the clinical and pathomorphological information and dividing the sample into molecular subtypes according to the consensus of St. Gallen 2015 (Coates AS. *et al.*, 2015) groups of observations were formed: luminal A subtype; luminal B subtype; Her2 / neu; triple-negative.

The ratio of stroma and parenchyma is variable. For the most part, parenchyma was dominated in invasive ductal breast carcinoma. Various morphological structures were diagnosed in the infiltrative component, such as tubular, alveolar, trabecular, solid, single tumor cells and mixed structure. Tubular structures were formed by one or two rows of fairly monomorphic cells with normochromic, sometimes hyperchromic, rounded nuclei. The alveolar structures were accumulations of tumor cells of a rounded or slightly irregular, resembling a rounded shape. The morphology of the cells forming this type of structure varied from small cells with moderately pronounced cytoplasm and rounded nuclei to large cells with hyperchromic, irregularly shaped nuclei and moderate cytoplasm. Solid structures were characterized by fields different in size and shape, which consisted of small cells with moderately pronounced cytoplasm and monomorphic nuclei or large cells with abundant cytoplasm and polymorphic hyperchromic nuclei. The trabecular structures were short, formed by one row of small rather monomorphic cells, or long or wide, consisting of 2-3 rows of medium-sized cells with moderately pronounced cytoplasm, with rounded normochromic or hyperchromic nuclei. Separate groups of cells were clusters of two, sometimes 3-4 cells variable in their morphology with hyperchromic nuclei. But most often, especially in luminal cancer, the infiltrative component had a mixed structure.

Among the complexes of the tumor parenchyma are bundles of thin, curled, weakly eosinophilic or basophilic collagen fibers. Vessels are not numerous, mostly capillary type. However, in places between the layers of the tumor parenchyma are huge vessels of the sinusoidal type, resembling lacunae filled with erythrocyte masses or blood plasma. The wall of such vessels is thin, represented by one layer of endothelial or tumor cells. Thin layers of fibrous connective tissue with signs of edema, loosening and mucus are found around the vessels.

A detailed morphological study showed that in invasive ductal breast cancer, tumor vessels are heterogeneous in morphology. Depending on the morphological features, we have identified several types of tumor vessels and structures with endothelial lining. These were microvessels of ordinary structure. This type included capillaries and other microvessels with a diameter of 5-40 μm . The density of microvessels in the peritumoral stroma was 10.5 ± 2.5 per conventional unit area, in the intratumoral stroma – 11.2 ± 3.7 per conventional unit area. The vessels had a normal structure. The capillary wall is very thin, formed by endothelium, basement membrane and pericytes. The flattened endothelium lining such vessels had a flat hyperchromic nucleus. The cytoplasm of endothelial cells was uniformly and intensely stained with the CD31 marker and had clear, smooth contours. The described vessels did not have significant differences in peritumoral and intratumoral stroma and their density per unit area did not differ. Both erythrocytes and lymphocyte cells were found in the lumen of the microvessels (Fig. 1).

In a small number of cases, we found capillaries with weak expression of CD31, although the vessels had a normal structure, but along with this were found separately located endothelial cells in the intratumoral stroma (Fig. 2).

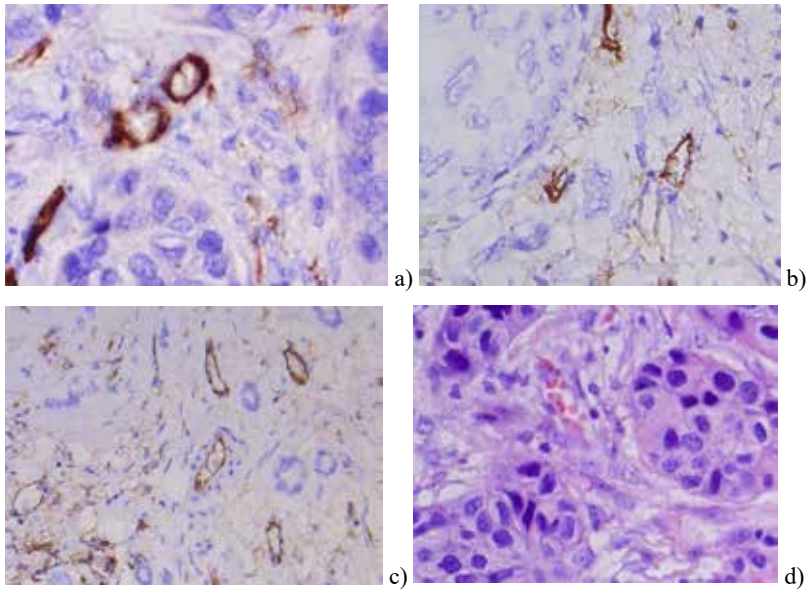


Fig. 1. Microvessels of normal structure in intratumoral (a, d) and peritumoral (b, c) stroma. The cytoplasm of endothelial cells is evenly and intensely stained with the marker CD31, has clear and smooth contours. IHC with CD31. a) $\times 600$; b) and c) $\times 200$; Staining with hematoxylin and eosin, d) $\times 600$

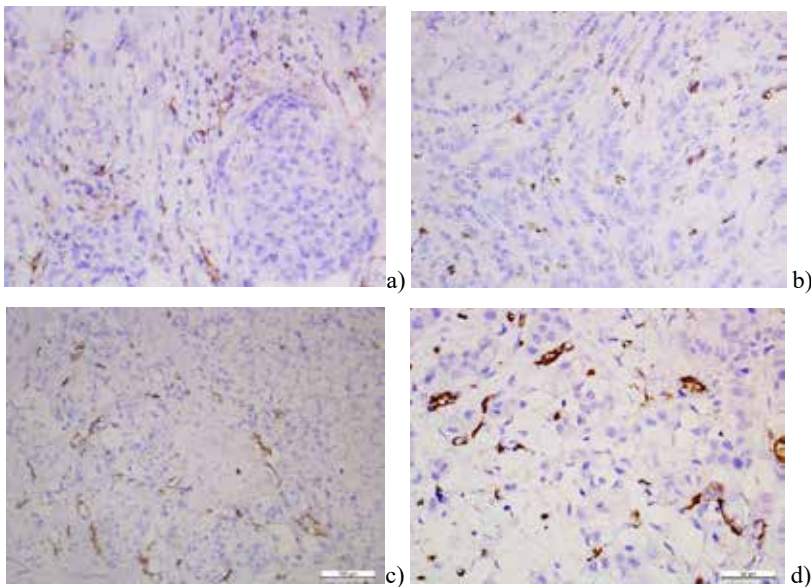


Fig. 2. Capillaries with weak expression of CD31 and single endothelial cells in the intratumoral stroma (a-b), increased expression of CD31 (d). IHC with CD31. a) b) and c) $\times 200$; d) $\times 400$

In the morphological study of invasive ductal cancer of the breast, the tumor complexes were surrounded by a sufficient number of stroma, represented by loose fibrous connective tissue, places with moderate edema and metachromasia. The number of vessels of the microcirculatory system is markedly increased compared to unaffected tissue, in some cases, vascularization even reached the degree of angiomatosis. In most cases, a significant portion of the capillaries were dilated with full-blooded with swollen endothelium. Some of the capillaries were filled with tumor cells and in a routine study with hematoxylin and eosin stain, mimicked small complexes of squamous cell carcinoma.

The dilated capillaries had some peculiarities. This type of vessel differed from ordinary capillaries in size. We have included vessels with a diameter of more than 40 μm to this type. We did not find the described vessels in 8.0% of cases, single and multiple dilated capillaries were equally common – in 46.0% cases. Dilated capillaries often had a regular round or oval shape, but irregular angular capillaries were found. A characteristic feature of the described vessels was that in their endothelial lining cells with large light nuclei with a delicate reticulate structure of chromatin were often observed. The cross-sections of the nucleus were round or oval. The cytoplasm of endothelial cells was fairly evenly stained with a marker and had clear, relatively smooth contours. The most frequent dilated capillaries were observed in the peritumoral stroma, where their presence was associated with the characteristic structure of the connective tissue matrix, which was represented by immature connective tissue with fibroblasts and had a delicate thin-loop fibrous base (Fig. 3).

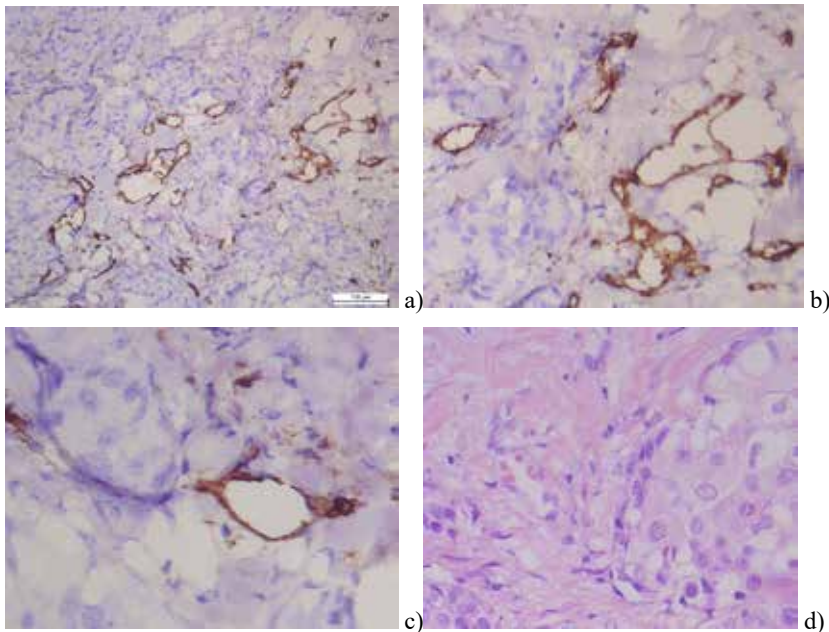


Fig. 3. Dilated capillaries of different shapes (a-d): round, oval and irregular angular shape. The cytoplasm of endothelial cells is evenly and intensely stained with a marker, has clear contours. IHC with CD31. a) $\times 200$; b) $\times 400$; c) $\times 600$. The characteristic structure of the connective tissue matrix is represented by connective tissue with fibroblasts and has a delicate thin-lobed fibrous base. Hematoxylin and eosin staining. d) $\times 400$

In some of our observations we also found dilated capillaries with weak expression of CD31, and the shape of the vessels is correct, the contours are smooth.

In addition, we found atypical dilated capillaries in the intratumoral stroma, which differed from the vessels near the invasive margin. They were represented by vessels of irregular shape, with a diameter of more than 40 μm . Atypical dilated capillaries were not detected in 20.8% of cases, were single – in 38.8% and multiple – in 40.4% of cases. The endothelial lining of such vessels was represented by chaotically arranged cells, which often layered on top of each other. The contours of the cells were blurred, uneven. CD31-positive cells not associated with endothelial lining were often detected in the lumen of such vessels. Such atypical sinusoids were located mainly in the intratumoral stroma. Erythrocytes were observed in the lumen of some vessels, in others only leukocytes (Fig. 4).

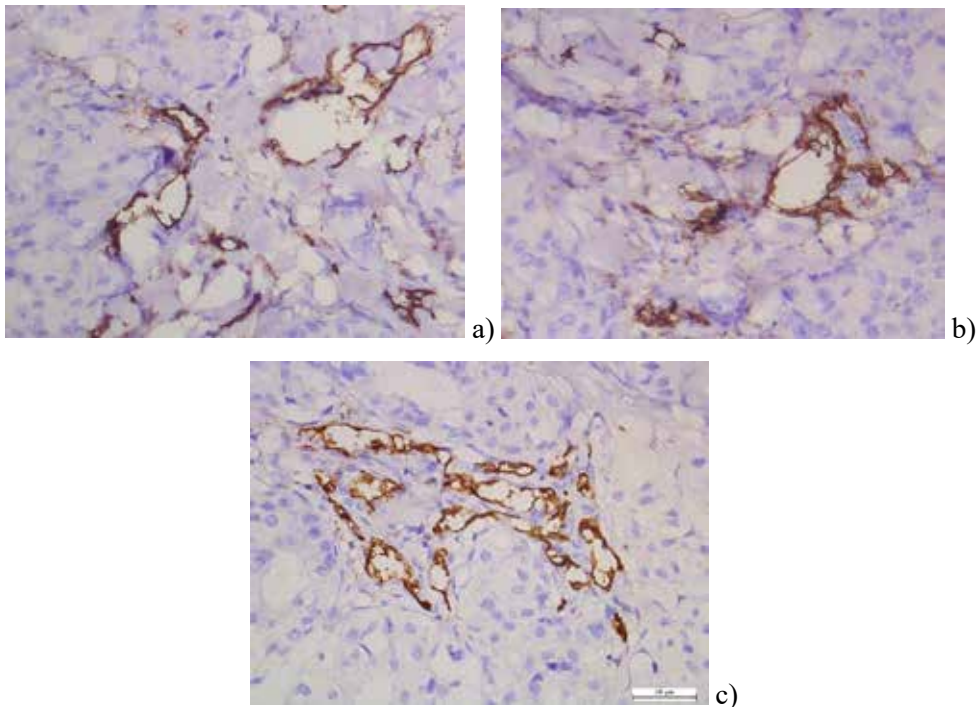


Fig. 4. Atypical dilated capillaries in the intratumoral stroma. The lining of the vessels is represented by chaotically arranged endothelial cells, which are layered on top of each other. IHC with CD31. $\times 400$

Morphological examination, along with normal and dilated capillaries, revealed hollow round or oval structures with partial endothelial lining and characteristic cellular structures in loose softly fibrous unformed connective tissue. They were absent in 32.5% of cases, were single – in 38.9% and multiple – in 28.6%. It was characteristic that structures without endothelial lining and atypical sinusoids were also determined at the same time (Fig. 5).

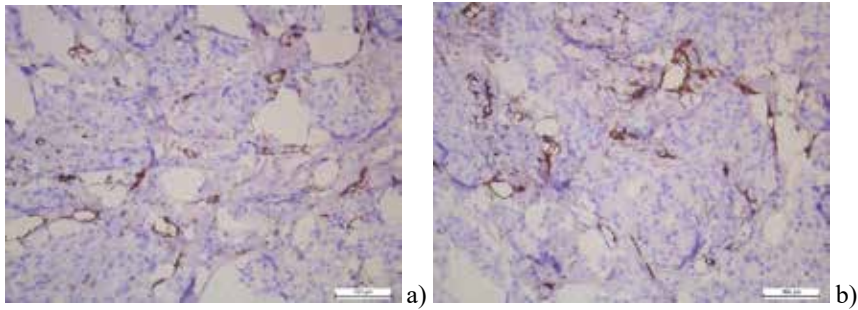


Fig. 5. Structures of round or oval shape with partial endothelial lining in the intratumoral stroma, without endothelial lining next to normal and dilated capillaries. Endothelial cells in structures with partial endothelial lining are chaotic, the contours of the cells are not clear, the cytoplasm of the cells is unevenly stained with the marker CD31. IHC with CD31. × 200

The parameter for assessing the growth of new blood vessels, which is widely studied in various human diseases, especially in malignant tumors – is the density of microvascular density (microvascular density). Increased microvascular density is considered an unfavorable factor for many tumors, especially in prostate, breast and malignant diseases of the blood system (Nico B. et al., 2008). Such a parameter as the density of microvessels is one of the important morphological criteria, which reflects not only the degree of vascularization of tumor tissue, but also the prognosis factor. According to the results of our study, we showed some differences in the severity of vascular density of the tumor in patients with invasive ductal breast cancer. There were no differences in microvascular density depending on the age of patients, T and N stage. At the same time, higher values of microvascular density in the intratumoral stroma were noted at G3 degree of differentiation, at triple-negative invasive ductal breast cancer and at HER2 / neu positive.

It is well known that angiogenesis is necessary for the growth of the primary tumor, its invasion and metastasis. It has been shown that a tumor cannot grow to more than 106 cells (or 1-2 mm³) without adequate angiogenesis and intratumoral vascular network formation due to lack of oxygen and nutrients. Tumor angiogenesis consists of two phases separated by “angiogenic switching”. The avascular phase is characteristic of tumors less than 1-2 mm in diameter. These tumors are “dormant” because the processes of proliferation and apoptosis are in balance. Some of these tumors enter the second, vascular phase, which is characterized by exponential tumor growth and imbalance of pro- and antiangiogenic factors (Spirina L.V., et al., 2008).

Morphological studies have shown that the vessels in the tumor are unstable, immature, do not have a full basement membrane and pericytes, interendothelial pores are significantly enlarged. Unlike normal vessels, tumor vessels do not form venules, arterioles and capillaries, but form a chaotic network of vessels of all types simultaneously. The vascular network in tumors is “leaky” and often causes bleeding due to excessive production of VEGF (Stepanova E.V. et al., 2006; Gershtejn E.S. et al., 2013). After reaching a certain critical size, the tumor cannot continue to grow without neovascularization, although non-angiogenic pathways have been shown breast cancer and non-small cell lung cancer due to the capture of pre-existing vessels or vascular mimicry. Vasculogenic mimicry is the process of forming channels from fluid-permeable tumor cells that have a high invasive potential. Characteristics of microvascular

mimicry are the lining of the canal by tumor rather than endothelial cells; ensuring blood flow to the tumor; positive reaction with Schiff's reagent (PAS reaction) and negative with CD31; intercellular matrix remodeling; expression of a multipotent phenotype similar to stem cells; association with poor prognosis and short 5-year survival (Qiao L et al., 2015). There are two types of microvascular mimicry. The first type, tubular, morphologically similar to blood vessels lined with endothelial cells. The second type, matrix, does not resemble blood vessels morphologically or topologically. In such a matrix can be found laminin, heparan sulfate proteoglycan and collagen types IV and VI.

The study showed that multiple cavity structures with partial endothelial lining were more common in moderate and high tumor malignancy (Grade 2-3), with negative tumor status. Multiple structures with partial endothelial lining were observed in HER-2 / neu positive and triple-negative ductal breast cancer ($p < 0.05$). The presence of characteristic porous structures in the peritumoral stroma was the only factor associated with HER 2 / neu positive status. The described structures were significantly more common in the positive status of HER-2 / neu than in the negative ($p < 0.05$).

The most significant from the prognostic point of view were the number of atypical dilated vessels and structures with partial endothelial lining, as well as the presence of characteristic porous structures in loose softly fibrous unformed connective tissue of the peritumoral stroma.

4. Conclusions

Thus, the study revealed the following types of tumor microvessels and related structures: capillaries of normal structure, dilated capillaries, atypical dilated capillaries, structures with partial endothelial lining and characteristic porous structures in the loose soft fibrous stroma of the tumor. Dilated microvessels with a chaotic arrangement of endothelial cells and structures with partial endothelial lining were located mainly intratumorally and stained with antibodies to CD31.

An interesting component of the metastasis process may be the so-called vascular mimicry. In this case, cancer cells differentiate into endothelium-like structures, which is how malignant tumors may require vascularization. This ability is determined by the secreted proteins Serpine2 and Slpi, which are protease inhibitors and may perform anticoagulant function.

In general, the issue of angiogenesis in tumor tissue is undoubtedly of great interest, especially in connection with the development of methods of antiangiogenic therapy. At the same time, despite the large number of publications on this topic, the ways of new vessel formation and the influence of intra-tumor vessel density on the general and recurrence-free survival of invasive neoplasms remain unclear. There are very few works in which retraction slits in tumor tissue are studied. However, the obtained correlations indicate the possible involvement of cavities around tumor cells in the lymphangiogenic and, accordingly, the formation of metastases in the lymph nodes, which adversely affects the prognosis. Given this, the study of retraction slits, the mechanisms of their formation, the impact on the development of lymphatic vessels and possible targeted therapy are interesting and promising areas.

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TECHNOLOGY, CREATIVITY, IMPLEMENTATION**THEORETICAL BASIS OF THE DEVELOPMENT OF EFFECTIVE
PARAMETERS OF A COMBINED CONVEYOR TRANSPORT
FOR MOVING WASTE MECHANICAL PROCESSING****Dmytro Chasov**

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Summary

The paper presents the results of technical and economic, theoretical and experimental research on the transportation of chips from the cutting zone of the machine by widely used classic types of conveyor transport and combined conveyor (hydraulic and screw). The analysis of research results showed that in domestic and foreign engineering, which uses integrated installations for the transportation of chips and sludge from the cutting area of the machine, have a number of serious shortcomings and do not allow to effectively carry out these processes. Based on the design shortcomings of the existing modifications of shop transport for moving chips and sludge, a new design of the combined (hydrowashing and screw) conveyor is proposed, which has a number of advantages, simplicity and reliability in working with the requirements for this type of transport. The description of the offered design of the combined conveyor is given. The method of calculation of these installations is stated, results of experimental researches, the analysis of the received results are resulted. According to the research results, schemes and sketches of the combined conveyor have been developed. The results of the work can be widely used in mechanical shops in the design and operation of systems for transporting chips from the cutting area of the machine to the general shop network for the movement of chips and sludge.

Keywords: screw, shavings, lubricating and cooling liquid, productivity, energy saving.

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1. Introduction

Among the many tasks in the mechanical engineering of Ukraine is the environmental problem associated with the collection, transportation and processing of chips and sludge, as a waste of mechanical processing. Taking into account the fact that processing and disposal is

carried out outside the workshop areas, a new task arises related to the process of transporting chips and sludge to the next stages of processing.

Moving chips and sludge carry on their surface particles of cutting fluid (coolant) used in machining processes. Due to economic and environmental feasibility, there is a separation of the coolant from the transported material for subsequent regeneration and operation. The energy component of the problem being solved is the use of combined transport under the condition of constancy (not increase) of energy costs. The aim of the work is to increase productivity and reduce the energy intensity of the processes of transporting metal chips by combined (screw and hydraulic flush) conveyors.

Achieving this goal involves solving the following tasks:

- description of the theoretical foundations of the process of movement of chips in combined (screw and hydraulic) conveyors;
- development of recommendations for choosing the parameters of the designed equipment.

2. Existing methods of chip transportation

Transportation of shavings is an important task, which is solved by a number of design organizations and plants. However, there is very little experience in generalizing these developments (*Baranovsky and other, 2017*). In fact, each company engaged in the design, manufacture or operation of metal-cutting equipment, solve the problem of transportation, assembly and processing of chips at its discretion.

All the variety of competitions created for the transportation of chips can be classified into separate groups, identical characteristics. For transportation of shavings from a zone of cutting of machines there are five groups of the mechanisms most widespread in mechanical engineering (*Fernandez and other, 2009*). Belt conveyors are used to collect small chips when processing brittle materials. They have found limited use due to structural complexity, the presence of a special drive and tension station, low durability of the tape. The use of steel tape further complicates the conveyor.

Screw conveyors are the most common, are universal, can operate horizontally, inclined and vertically. One end of the auger is connected to the drive by means of floating couplings, the other end is free – floating. However, these conveyors require careful care, cannot move the drain chips without installing an additional auger.

Vibrating conveyors are simple in structure of the device, work well for transportation with chip breaking. The disadvantage is the vibration on the process equipment, noise, especially at high amplitudes of vibration. Pulse conveyors are driven by the machine itself and work by stopping the chute instantly when moving it in the direction of chip removal.

Hydro-erosion devices have one or more nozzles on the side of the chute, angled towards the transport, to which the coolant used in the cutting zone enters. The device can work effectively at a pressure in the system of not less than 0.25 MPa, a short length of transportation and the absence of foreign objects. It is also used in industry – combined transport, such as plate conveyors and pressureless hydraulic transport. In this case, the slope of the gutter may be small, the performance is significant (*Hevko, 2015*).

Conveyors of different types are used to move waste from mechanical material processing operations. I will introduce the technological features of the location of conveyor lines in machining shops – the most effective are screw and flush conveyors, as they have low energy consumption when able to work on short sections (Table 1).

Table 1

Technical characteristics of conveyor transport.

A type	Transportation distance, m	Productivity, t/h	Power consumption, kW/h	Overall dimensions, diameter, width, m	Type of transported chips	Elevation angle	Energy intensity of transported material, kW/t
Band-plate	2–80	5–125	30–110	400–1400	chipping, fracture	55°	7–1
Vibrating	0,5–18	2–25	2,2–20	500–800	chipping, fracture	50°	4,1–1,55
Pulse	0,8–10	1–5	3,5–16	200–800	chipping, fracture	25°	2,1–1,85
Screw	0,5–25	2–45	1,5–20	100–1000	fracture	25°	0,85–0,45
Water flush	0,5–15	0,5–60	1,1–40	30–300	sludge, fracture	15°	2,5–0,5

Based on the above data, the combination of a screw conveyor with a hydraulic flush conveyor is the most effective due to their low energy consumption and relatively high productivity (*Hevko and other, 2014*).

After analyzing the designs of screw conveyors and devices aimed at upgrading and correcting prototypes, the main upgrades were identified, which are as follows:

- changing the geometry of the loading and unloading openings;
- combined use of additional hydraulic and pneumatic transport;
- change of screw diameter (stepless);
- use of additional chambers (aeration);
- impact on technical and design parameters by using additional intermediate supports

(*Hevko and other, 2014*).

The screw conveyors and attachments described above are designed to adjust performance due to design changes, technology upgrades and the use of additional attachments, etc.

However, none of the designs consider or address the issue of increasing productivity by combining types of conveyors in order not to increase energy costs.

3. Combined conveyors for transporting chips from the cutting zone

Effective transportation of chips from the cutting area is one of the most difficult tasks in the design of metal-cutting machines. Creating new designs of metal-cutting machines, the designer must provide for the rational removal of chips: windows in the frame; absence of protruding parts; for which the shavings would cling; sufficient chip space, etc.

The chips should fall down to a special cavity under the action of their own weight, the windows in the machine, and from there to be taken out by the conveyor. However, this only happens in the presence of elemental chips. High adhesion of drain shavings, ability to get into chains, winding around the protruding parts of mechanisms and tools, etc., forces to

apply transporting devices with big traction forces, forced capture of shavings (*Hevko and other, 2016*).

Analysis of existing methods of collecting chips from the cutting area, shows that all devices have certain shortcomings and cannot fully solve this problem (*Ince and other, 2019*). This task is especially complicated when oil is used as a coolant, the processing process is intensive, a large amount of chips is formed (*Pankiv and other, 2017*).

The authors proposed, developed and implemented a new design of a combined conveyor for collecting chips from the cutting area of the machine. These conveyors create a series of intersecting jets of fluid parallel to the bottom of the gutter. To do this, pressure pipelines of different cross-sectional length are installed in the side walls of the gutter and connected to nozzles symmetrically mounted on the inside of the side walls of the gutter, reinforced at the bottom with low-fraction material.

Pressure pipes can be made of box section, as a low-fraction material can be used tempered glass. This design of the conveyor allows to obtain a jet of liquid, to have a low coefficient of friction of the chips against the bottom of the chute, ie in general to increase the efficiency of transportation. The compact arrangement of pressure pipes and nozzles allows to reduce considerably the overall dimensions of the device.

The combined conveyor (Fig. 1) has a gutter of semicircular cross-section, at the side walls of which are installed pressure pipelines 1 also shaped corresponding to the cross section of the auger, but moved along the length of the cross section. Nozzles 2 with oval outlets 3 are welded to the pipelines. The bottom of the gutter is reinforced with low-fraction material 4. The gutter is supported by a base 5.

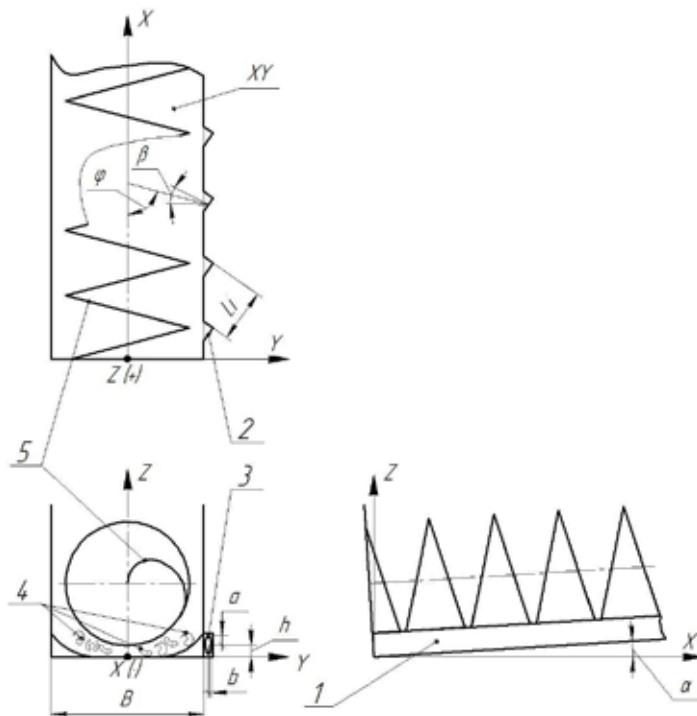


Fig. 1 Combined conveyor

Under pressure, the coolant is fed through pipes into pressure pipelines, from where it is injected into the chute through nozzles in the form of jets parallel to the bottom. To prevent chips from entering the nozzles, protective screens are mounted above them. Jets of liquid flying out of the holes pick up the chips 4 and move it from one jet to another, thereby ensuring the movement and mixing of the transported particles that did not fall into the area of action of the screw spiral. The installed auger 5 can be made of both tape and blade construction.

Under even more limited conditions, it is advisable to use several modified nozzle designs in the form of slits formed by wall elements to transport chips from the cutting area of the machine. In this case, the energy of the resulting jets is fully used and larger chips can be moved. In this case, the chips in some areas float "on the stream" and slide along the bottom of the gutter.

4. Theoretical foundations of the chip movement process in combined conveyors

Denote by Li (Fig. 1) – the distance between the nozzles along the length of the chute, which is also a value equal to the pitch of the auger spiral, h – height from the middle of the nozzles to the bottom, α – angle of the chute, B – width of the chute, 1.05-1.1 external diameter of the auger, a and b – half the length and width of the nozzle hole, φ – the angle of the axis of the jets with the longitudinal axis of the chute, Q_r – fluid flow from one nozzle, d – average particle size.

Let the X axis coincide with the gutter axis, the XY plane coincide with the bottom plane, and the Z axis coincide with it. Since a solid substance (Q_T) – chips or sludge – enters the chute every second, and at the same time liquid (Q_r) from each nozzle (n) is fed to each turn of the auger spiral in the corresponding section of the chute, it can be assumed that the whole mass of solid substance evenly distributed over the mass of the liquid and the mass of solid per unit mass of liquid can be taken as the mass (m_s) of the conditional proportion of solid, so:

$$m_s = \frac{Q_T}{Q_r \cdot n} H, \quad (1)$$

where H is the coefficient that takes into account the maintenance of the dimension of the mass distribution of solids in the area of the gutter. Conditional material spherical particle of medium diameter falls on the plane of the gutter (X_0, Y_0) and under the action of flow forces begins to move along the gutter. In each section, in addition to the main stream, which was formed earlier, there is a local flood, obtained as a result of jet flow in this area. The following assumptions apply to the description of jets:

- the expansion of the jets 2β in the plane XY for all nozzles is the same;
- the liquid is perfect, uncompressed;
- the process of jet flow – isothermal and stationary;
- in each section of jets the velocity field is homogeneous.

Then the continuity equation applies the form:

$$S_0 V_0 = S V \quad (2)$$

where S_0, S - the area of the initial and arbitrary cross section of the fluid jet;

V_0, V – the velocity of the initial and arbitrary fluid flow.

The velocity of the liquid in an arbitrary cross section is determined:

$$V = \frac{S_0}{S} V_0 \text{ or } V = \frac{a_0}{a} V_0 \quad (3)$$

where a – the acceleration of the jet being determined

$$a = a_0 + kx \tag{4}$$

where $k = \tan \beta$, $x = L_0 + (i - 1)L_i + x \cos \phi$

From here

$$a = a_0 + \frac{\tan \beta}{\cos \phi} (x - L_i - (i - 1)L_i) \tag{5}$$

where L_0 – the distance from the beginning of the gutter to the first section.

Taking into account (5) and the angle of inclination of the chute (α) equation (3) will take the form:

$$V = \frac{a_0 V_0}{a_0 + \frac{\tan \beta}{\cos \phi} (x - L_i - (i - 1)L_i)} \cdot \cos \alpha \tag{6}$$

At each section, the flow of jets is summed and the flow velocity in an arbitrary cross section is determined from a system of equations:

$$V_{xi} = \frac{2Q_r \cos \phi}{\pi b \left[a_r + \frac{\tan \beta}{\cos \phi} (x - L_i - (i - 1)L_i) \right]} \cdot \cos \alpha \tag{7}$$

$$V_{yi} = 0; V_{zi} = \pi$$

After a series of transformations and accepting $L_0 = 0$, we obtain the equation for determining the total fluid flow rate in an arbitrary cross section:

$$V_{xi} = \left(\frac{Q_r \cos \phi}{\pi b} - \frac{2a_0 + \frac{\tan \beta}{\cos \phi} \left[a_0 + \frac{\tan \beta}{\cos \phi} (x - L_i - (i_0 - 1)L_i) \right]}{\left(a_0 + \frac{\tan \beta}{\cos \phi} L_i \right) \left[a_0 + \frac{\tan \beta}{\cos \phi} (x - L_i - (i - 1)L_i) \right]} \right) \cos \alpha, \tag{8}$$

($i=2,3,\dots$)

The following forces act on the solid particle in the fluid flow: frontal pressure force, lifting force, friction force.

Frontal pressure force:

$$S_{lob,x}^r = K_1 (V_{xi}^r - U_x^r) \tag{9}$$

where U_x – the speed of movement of solid particles in the axial direction X ($U_y = 0; U_z = 0$).

K_1 – coefficient, and in accordance with Stokes' law – $K_1 = \frac{18M}{d^2} K$,

M – coefficient of dynamic viscosity.

Then

$$S_{lob,x} = \frac{18M}{d^2} (V_{xi} - U_x) \tag{10}$$

The lifting force acting on the particle is determined

$$S_{lob} = PV_\infty x \tau r \tag{11}$$

where V_∞ – the speed of the oncoming flow;

τ – from the direction of the vortex;

r – circular speed $rot_L, rot_e, rot_0 V$ to the polar coordinate system.

Determining values $rot_L, rot_\varepsilon, rot_0V$ we obtain the following expressions of the lifting force in the projections on the axis:

$$S_{n\ddot{oz}} = S_{n\ddot{oz}R} \cos \theta - S_{n\ddot{oz}\theta} \sin \theta = \frac{9p}{4\sqrt{2}\pi} \left(\frac{Q_r}{\gamma_T Q_r} \right)^2 \frac{3}{2} \frac{\sin^3 \theta \cos \theta}{R^2} \quad (12)$$

$$S_{n\ddot{oz}} = S_{n\ddot{oz}R} \sin \theta \cos \varepsilon + S_{n\ddot{oz}\theta} \cos \theta \cos \varepsilon - \frac{3p}{4\sqrt{2}\pi} \left(\frac{Q_r}{\gamma_T Q_r} \right)^2 \frac{\sin \theta \cos \varepsilon}{R^2} (V_{xi} - U_x)^2 (\sin^3 \theta - 2 \cos^3 \theta) \quad (13)$$

where θ – the angle of inclination of the vector R to the horizon;
 ε – the current spatial coordinate at this point of the chute;
 R – fluid vortex radius;
 p – fluid density;
 γ_T – solid density.

The sliding friction force is equal to:

$$F_{mp.x} = -f_{mi} g \cos \alpha \quad (14)$$

where f_{mi} – sliding friction coefficient,
 g – acceleration of gravity.

Taking into account all the forces considered above, the differential equation of motion of a conditional spherical particle along the X axis has the following form:

$$m_r x = m_r g \sin \alpha + \frac{g\mu\pi\gamma Q_r}{Q_r} (V_{xi} - U_x) - f_{mi} g \cos \alpha, \quad (15)$$

where μ – integrating multiplier.

After presenting x as $\frac{U_x dU_x}{dx}$ integration of equation (15) in the range from 0 to L_i and substitution of the found values, we obtain:

$$u \frac{Q_r}{Q_r} g L_i (\sin \alpha - f \cos \alpha) - \frac{4.5 Q_r^2 \gamma_T M \cos \phi^2}{Q_r \max B} \cdot \frac{1}{a_0 \cos \phi + \tan \beta L_i} \int_0^L \frac{\left\{ [x - L_i (i-2)] \frac{\tan \beta}{\cos \phi} + 2a_0 \right\} dx}{a_0 + \frac{\tan \beta}{\cos \phi} [x - (i-1)L_i]}$$

After the second integration we get:

$$u \frac{Q_r}{Q_r} g L_i (\sin L - f \cos \alpha) - \frac{4.5 Q_r^2 \gamma_T M \cos \phi^2}{Q_r \max B} \times \frac{1}{a_0 \cos \phi + \tan \beta L_i} \left[L + L_i \ln \left| 1 + \frac{L \tan \beta}{a_0 \cos \phi - \tan \beta L_i (i-1)} \right| \right] = 0 \quad (16)$$

Solving equation (16) with respect to $Q_{T_{\max}}$ it is possible to determine the maximum transport capacity of the flow at a given fluid flow rate and the accepted parameters of the conveyor.

5. Conclusions

The solution of equation (16) allows to establish the transport capacity of the flow and to design the effective parameters of the combined conveyors:

- length;
- width;
- the angle of the gutter to the horizon;
- width of the nozzle inlet;
- the length of the inlet of the nozzle;
- the distance of the plane of the nozzle holes from the bottom of the conveyor chute;
- the distance between the nozzles along the axis of the conveyor;
- supply pressure;
- the angle of entry of the axis of the jet to the axis of the conveyor;
- fluid consumption for each nozzle;
- conveying capacity of the conveyor.

All the above parameters contribute to the solution of the scientific environmental problem aimed at increasing productivity without increasing energy consumption.

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INTELLIGENT SYSTEM FOR AUTOMATION SEARCH OF PUBLIC TRANSPORT ROUTES

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Summary

This article is devoted to automation of search of routes of passenger flows of inhabitants of the city on the basis of routes of public transport. To do this, it is proposed to use satellite data that reflect the movement of passengers. Based on the analysis of data arrays of information on the movement of cellular subscribers and the use of message messages to determine the effectiveness of passenger routes of public transport, the article proposes to create a system of automatic search of public transport routes, which includes different classes of charts and data bases. You can use data from cellular operators to do this. This can increase the accuracy of certain traffic volumes and the ability to monitor them in real time. Reliable information on the routes of urban public transport allows to determine passenger flows and efficiently perform transport services. The main requirements for modeling the city's passenger traffic are presented. Methods of obtaining data on determining the city's passenger traffic and public transport are considered. Documentation for the creation of the ISASR (Intelligent System for Automation Search of Routes) project has been developed. The MVC (Model-View-Controller) architectural template was used to develop the project. Class diagrams and precedent diagrams have been developed for the model. Database structures have been created and vehicle types and user types have been defined. Algorithms for finding routes for different situations, with different latitude and longitude coordinates, as well as different number of stops and transfers have been developed.

Keywords: GPS-sensor, data base, class diagrams, knowledge base, decision support, use case diagrams, satellite connection, model-view-controller.

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1. Introduction

To effectively manage and organize the operation of the public transport network, it is important to receive timely information about passenger flows within the territory covered by the network. The necessary condition is that such information should be received constantly

on the basis of data monitoring, so-called "constant information". The availability of such information makes it possible to increase the level of service to users of public transport, for example, updating schedules with the offer of maximum convenience for users. In addition, this way you can attract additional users of public transport services.

As a rule, passenger flows are formed on the basis of previous research of correspondence of movements of inhabitants of the city. Calculation methods are used to determine and estimate the extent of travel correspondence. Socio-economic indicators of the population and the location of facilities within the transport planning area are usually used as source information in such calculations. In order to obtain sufficient reliable information about the movement of the population by public transport (tram, bus, etc.), it is necessary to involve a large number of experts and researchers, which in turn leads to time and material costs. It also affects the comfort of transportation and fatigue of passengers.

Due to the development of digital technologies and the proliferation of cellular networks, arrays of information about cellular subscribers' transactions have been increasingly used in recent years to determine and evaluate the extent of correspondence of passengers. In this way, you can ensure online monitoring and "continuity of information". Accurate linking of user movements to public transport routes (PTR) will make it possible to determine passenger flows and implement an efficient level of transport services. As a result, it can increase the accuracy of certain traffic extent and the ability to monitor them in real time. Given the above, automation the search for public transport routes is an actual task.

The aim of the work is to develop a system for automation the search for PTR using intelligent decision support. Achieving this goal is achieved by solving the following tasks:

- development of diagrams for the system of search of routes of passenger flows of public transport;
- development of structures and databases;
- description of data in class diagrams and databases;
- development of a route search algorithm.

2. Review of the literature

The problem of distribution of passenger movements in the city has been studied by many scientists. Having synthesized the available information on the planning of passenger flows, the process of transport planning of the city can be presented in the form of 4 stages:

- Stage 1 – generating movement (trip generation);
- Stage 2 – movement correspondence (trip correspondence);
- Stage 3 – distribution of correspondence by type of movement (modal split);
- Stage 4 – distribution by route of movement (network assignment).

Correspondence of movements is divided into groups: by purposes of movement; by choosing the type and route of movement. The main most important purposes of movement are: movement from place of residence to place of work (study) and back; movement from the place of residence to places of household and cultural services and in the opposite direction; movement between places of work (study) and / or places of household and cultural services.

The authors of the work (*Elkosantini & Darmoul, 2013*) conducted a study of the types of technologies that can be used to control public transport systems. The authors singled out such technologies as Traveler Information Systems, Geographic Information System, Automatic Vehicle Location System and Decision Support Systems. An overview of each of them, advantages and disadvantages. The authors note that it is important to integrate

intelligent decision support systems into existing public transport planning architectures. This makes it possible to take into account all the events that may affect the operation of the network.

In the article (*Mnif et al., 2018*) the authors developed a semiheterarchical (hybrid), multiagent monitoring and control architecture the public movement of buses. Obstacles (accidents, congestion, etc.) are taken into account. The theory of immune memory, negative and clonal selection was used for development. This allowed to train the system on the basis of knowledge about violations during the movement of buses and to accumulate a knowledge base of the decisions made.

Subsequently, the work of this system was studied in (*Mnif, Elkosantini et al., 2019*). In particular, performance was assessed using traffic simulation software. Time, passenger and service criteria were used to assess efficiency. It is proved that the performance of the system according to the criteria focused on passengers and service is much higher than the performance of the algorithms of control. Time-based criteria confirmed the performance of the proposed system better than the combination of waiting and passing stations.

For highways in Iran, the authors (*Ghanbari et al., 2015*) have developed an intelligent decision-making system that can significantly improve the transport infrastructure. The knowledge of road and transport experts was used in the development. Fuzzy logic methods and the Mamadani algorithm were used to teach the system. Simulation of the system was performed using the software environment Matlab. The authors note that the developed decision support system can be used in the initial design of intelligent urban and interurban transport lines.

In the article (*Szücs, 2015*), the authors proposed to solve the transport problem using the Dempster-Shafer theory. Cost interval information for each route was used as a basis. An algorithm has been developed that allows determining the best route (the path with the lowest cost). It is important that the author of the article proposed the rules of the mechanism based on user requests. The use of this model allows you to make decisions to plan the route of the user network. This model is based on user decisions, in order to find a balance in optimizing the route where roads have uncertain attributes.

As an alternative to GPS, the authors of the article (*Salazar-Cabrera et al., 2020*) recommend the use of technology Bluetooth low energy and Radio-frequency identification to determine the positioning of vehicles. The advantage is that the cost of using such means of communication is lower than tracking a vehicle on the Internet. In addition, the article proposes to use long range technology to determine the positioning of vehicles. The architecture of the intelligent transport system for the city of Popayan (Colombian city) has been developed. The architecture takes into account waiting time at stops and energy consumption. This architecture contains the following main blocks: transportation information center, traffic management center, transit vehicle on-board equipment, traveler support equipment, personal information device, traveler, system operator and public vehicle operator.

The article (*Zannat & Choudhury, 2019*) presents the results of a review of current research papers on research in public transport route planning. The advantages and disadvantages of different methods and tools are considered. The article notes that most data is currently used to collect data from mobile devices, smart cards, which is much more convenient and cheaper than collecting information in traditional ways. The authors note that to take into account the interaction of public transport users with the environment, an extended mathematical model is needed, which will include machine learning tools and spatial statics integrated with spatial analysis.

3. Stages of development for the system of automation of searching PTR

To development the system for automation of search of PTR 4 stages are proposed:

Stage 1 – development of diagrams for the system of search of routes of passenger traffic of public transport;

Stage 2 – development of structures and databases;

Stage 3 – description of data in class and database diagrams;

Stage 4 – development of a route search algorithm.

In the further development of the project it is proposed to use the architectural template MVC (Model-view-controller).

In the first stage, it is proposed to develop a precedent diagram (usage diagram) and a class diagram using UML (Unified Modeling Language). UML is a notation system that should be used for object-oriented analysis and design. Can be used to visualize, specify, design and document software systems.

The class diagram shows the structure of the system with a description of the classes, their attributes, methods, and relationships between objects. The class has information about what the object might look like. That is, describes the state (attribute) and behavior (methods). The precedent chart shows the relationship between actors and precedents. It is an integral part of the precedent model, which allows you to describe the system at the conceptual level.

4. Development of diagrams

For the ISASR (Intelligent System for Automation Search of Routes) project, documentation must first be developed, and a plan must be provided. So, first let's define the types of transport that should be supported: minibus; bus; trolleybus; tram. Then define the users of the developed system: passenger; the driver; carrier; dispatcher.

Next we move on to the technical part. The model is represented by the following diagrams:

1. Use case diagrams – in UML (Unified Modeling Language), a diagram showing the relationship between actors and precedents in the system. It also translates as a usage chart.

2. Class diagrams – is used to represent the static structure of the system model in the terminology of object-oriented programming classes. This diagram shows classes, interfaces, objects, and cooperatives, as well as their relationships.

Use case diagrams. The scheme of the diagram is shown in Fig. 1.

User interacts with the ISASR system through the following uses:

- From location – the starting point from which the user intends to move;
- To location – the end point of movement;
- By location – an intermediate point through which the user has the desire (need) to move;
- Go – notifies the system to start paving the route;
- Schedules – gives the user access to schedules;
- Routes lists – displays lists of routes available in the database (if the user searched for routes by location, displays found, otherwise all);
- Stops list – displays stops as a list;
- Show all stops – all stops should appear on the map;
- Stops on / off – show / not show stops on the drawn route (s);
- Add / delete database – gives the user access to download new and delete existing databases;

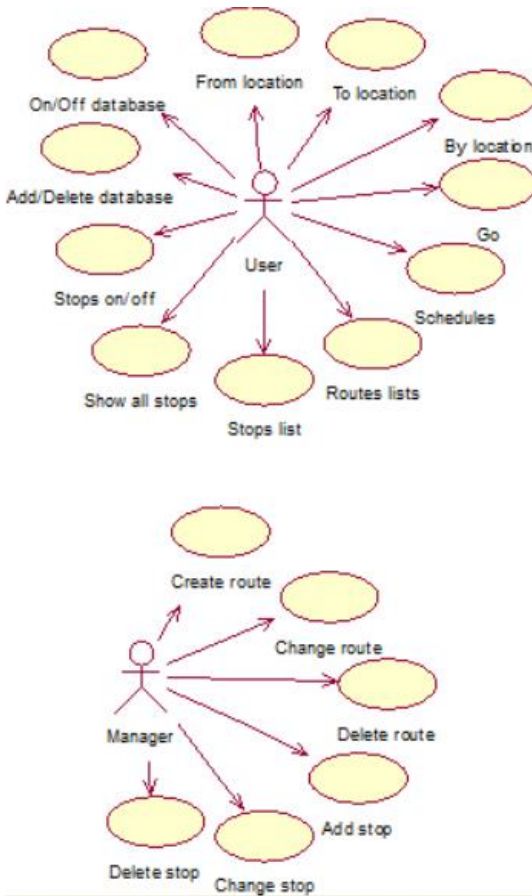


Fig. 1. Use case diagrams

– On / off database – determines in which databases the search will take place (will be active).

– Save database – saves the user database.

– Unload database – downloads the user database for exchange.

Manager interacts with the ISASR system through the following uses:

– Create route – gives the manager access to the route editor to create a new route (only one database must be active for editing).

– Change route – gives the manager access to the route editor for editing existing ones (only one database must be active for editing).

– Delete route – allows the manager to delete the route (only one database should be active for editing).

– Add stop – allows the manager to add a stop to the created (edited) route or create a stop in the edited database (only one database should be active for editing).

– Change stop – allows the manager to edit the stop in the edited database (only one database should be active for editing).

– Delete stop – allows the manager

to delete a stop on the created (edited) route or delete a stop in the edited database (only one database should be active for editing).

– Create database – gives the manager the opportunity to create a new database.

– Change database – gives the manager the ability to edit an existing database.

– Delete database – allows the manager to delete the database.

– Unload database – allows the manager to download the database to the server.

Class diagrams. The scheme of the diagram is shown in fig. 2. The following types of notation were used in the development of the diagram: association and dependence.

The multiplicity can be set equal to one (1), you can specify the range: "zero or one" (0..1), "many" (0 .. *), "one or more" (1 .. *). It is also allowed to specify a certain number (*for example*, 3). Using the list, you can specify more complex multiplicities, such as 0.. 1, 3..4, 6 .. *, which means "any number of objects except 2 and 5".

ClassTransport – contains properties (variables) and methods (functions) intended for general work; saves, searches, and draws routes and stops.

ClassDbController – designed for database control.

EnumRouteState – a list of directions in which you move along the route (forward, reverse, in both directions).

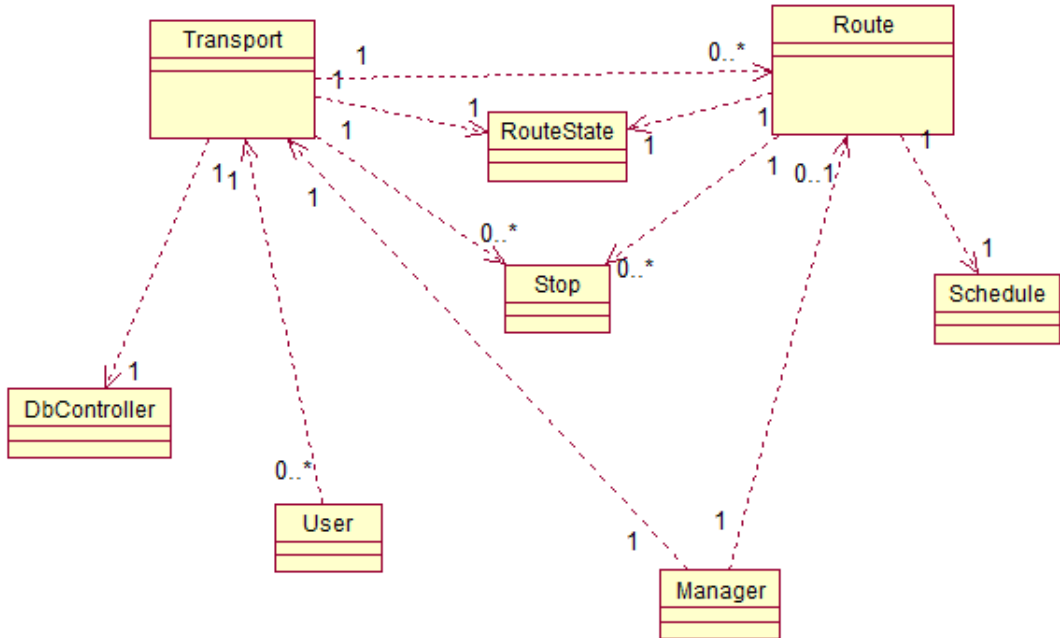


Fig. 2. The structure of the class diagram

ClassUser – contains properties (variables) and methods (functions) intended for the operation of the user part, performs primary processing of user information and redirects (if necessary) data for further processing to transport classes DbController.

ClassManager – contains properties (variables) and methods (functions) intended for the work of the manager: creating / editing / deleting databases \ routes / stops, sends requests to the class Transport data update and class DbController to load the database to the server.

ClassRoute – contains properties (variables) and methods (functions) designed to work with the route, information about the route and locations through which it passes.

ClassStop – contains properties (variables) and methods (functions) designed to work with a stop, location and name.

Class Schedule – contains the route schedule.

5. Development of structures and databases

Three databases have been developed:

- UserDbs.db – databases that can be downloaded or activated;
- Country-City.db – database of a specific city;
- UserShareDb.db – user database with saved places: jobs, places of residence, shopping, leisure, etc.

UserDbs.db. The structure of this database is shown in Fig. 3.

Country-City.db. The structure of this database is shown in Fig. 4.

UserShareDb.db. The structure of this database is shown in Fig. 5.

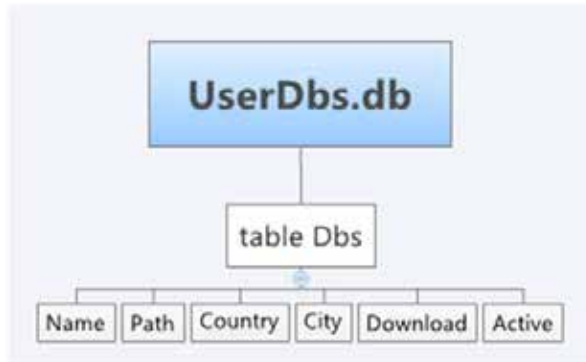


Fig. 3. UserDbS.db database structure

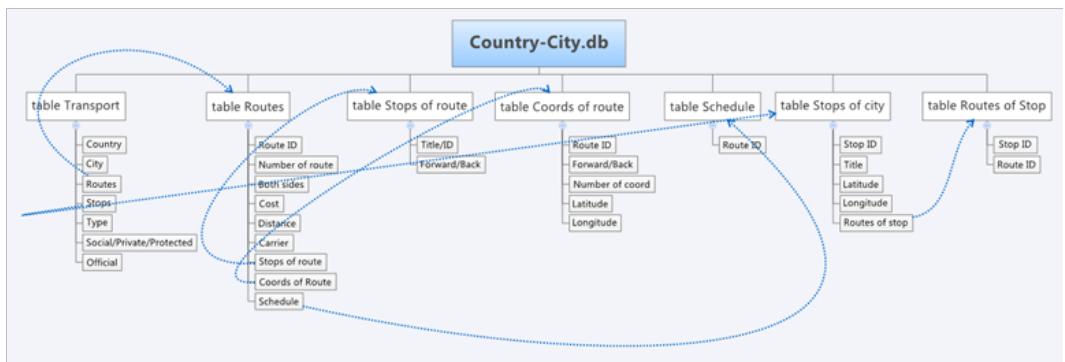


Fig. 4. Structure of the Country-City.db database

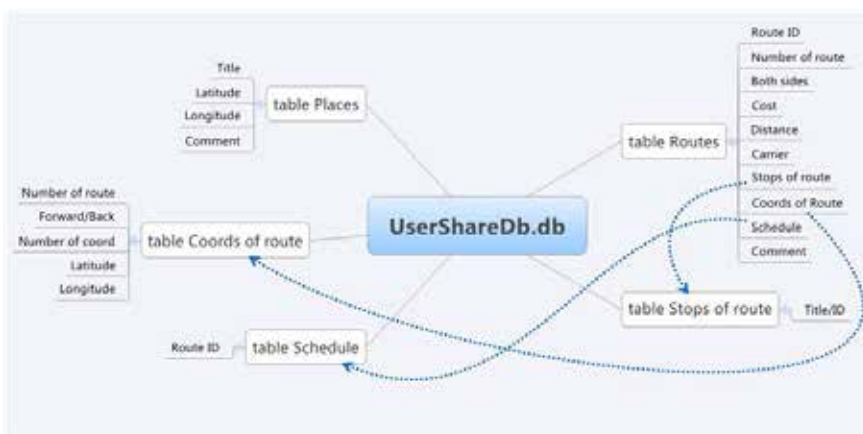


Fig. 5. UserShareDb.db database structure

The STD (State Transition Diagrams) diagram is shown in Fig. 6.

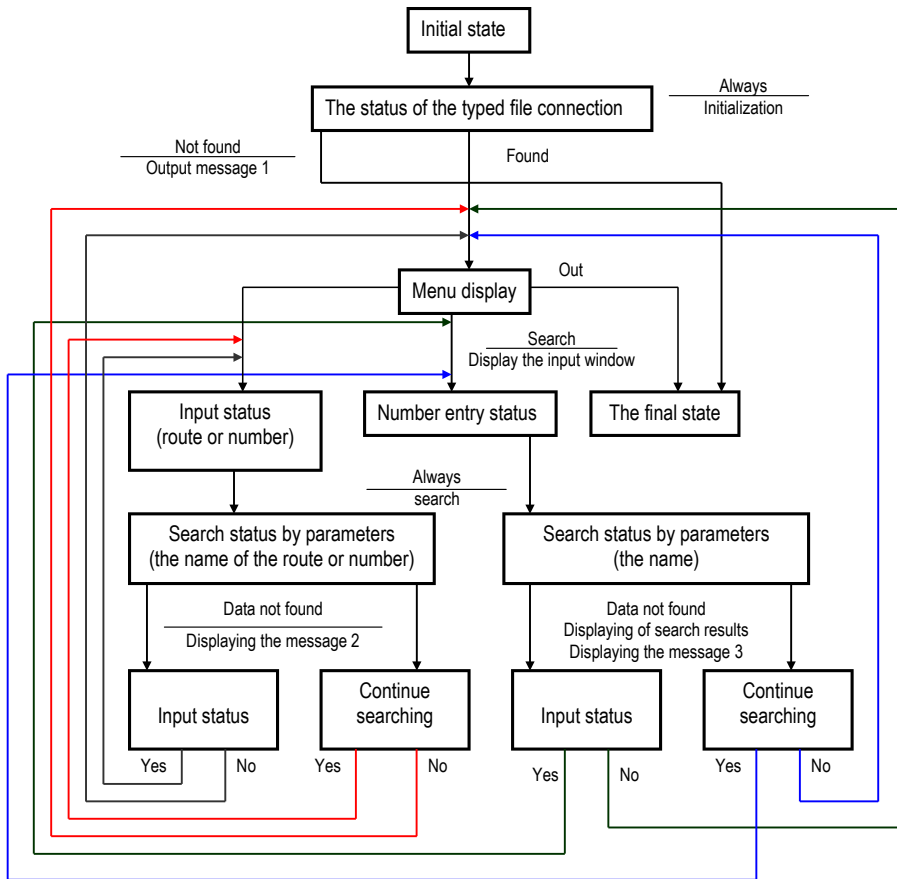


Fig. 6. State transition diagram (STD diagram)

STD-diagrams are designed to model the operation of the system, taking into account its operation in previous and current stages. Thus, the system for which the simulations are performed can be in one particular state at any time among an infinite number of these states. The system can change its state after a certain time interval, but it is necessary to take into account that the transitions between the states of the system were precisely defined.

Message 1: “Typed file not found. Provide the name and path to the file or enter data from the keyboard”.

Message 2: “Data not found. Repeat search? Yes No”.

Message 3: “Continue searching? Yes No”.

The main operations are: menu output; initial state; final state; search status by parameters; input status; continue search.

6. Data presentation

According to the diagrams of precedents and classes, as well as database structures, for the visual implementation of the system developed a presentation of information for diagrams and databases. The presentation of Class diagrams data is shown in Fig. 7.

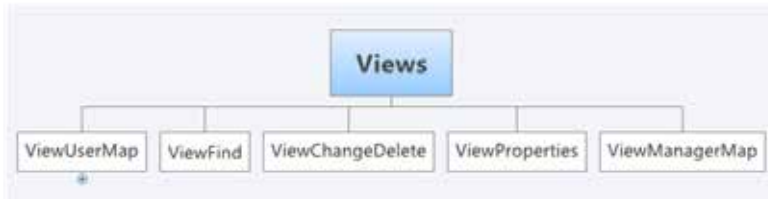


Fig. 7. Data presentation Class diagrams

ViewUserMap – displays the map and allows the user to specify the points (locations) of departure, arrival and, if necessary, the intermediate location.

ViewFind – displays a list of found routes or immediately draws the optimal route.

ViewChangeDelete – allows the user to select (download) databases, with activated manager mode to edit / delete databases, routes and stops.

ViewProperties – allows the user to change the default route search settings.

ViewManagerMap – displays the route editor (stops).

The presentation of information in the Controllers block is shown in Fig. 8.

UserMapController is a control model between the ViewUserMap view and the data.

UserSearchController is a control model between the ViewFind view and the data.

PropertiesController is a control model between the ViewProperties view and the data.

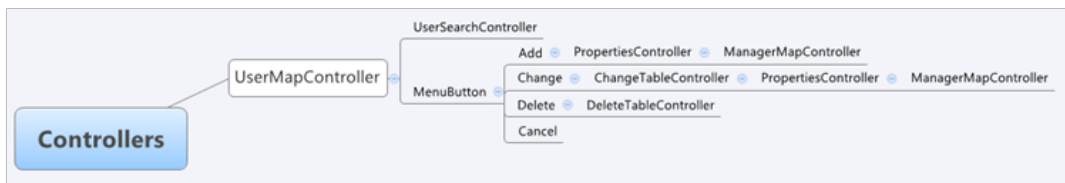


Fig. 8. Presentation of information in the Controllers block

ChangeTableController is a control model between the ViewChangeDelete view and the data.

DeleteTableController is a control model between the ViewChangeDelete view and the data.

ManagerMapController is a control model between the ViewManagerMap view and the data.

7. Algorithms for finding routes

Several route search algorithms have been developed:

- algorithm for finding routes by stops;
- algorithm for finding routes by stops with transfers;
- algorithm for finding routes by coordinates;
- algorithm for finding routes by coordinates with a change.

Algorithms take into account:

- latitude and longitude of the location;
- search for stops;
- route search;
- sorting of found routes;
- display of the most attractive route;

In fig. 9, fig. 10, fig. 11 and fig. 12 are block diagrams of route search algorithms for different situations, with different latitude and longitude coordinates, as well as different number of stops and transfers.

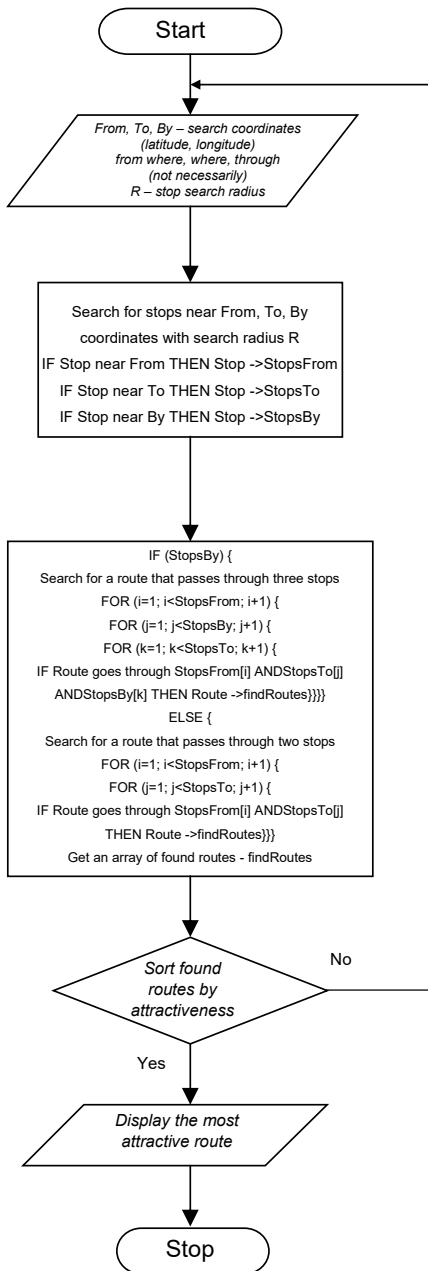


Fig. 9. Algorithm for finding routes by stops

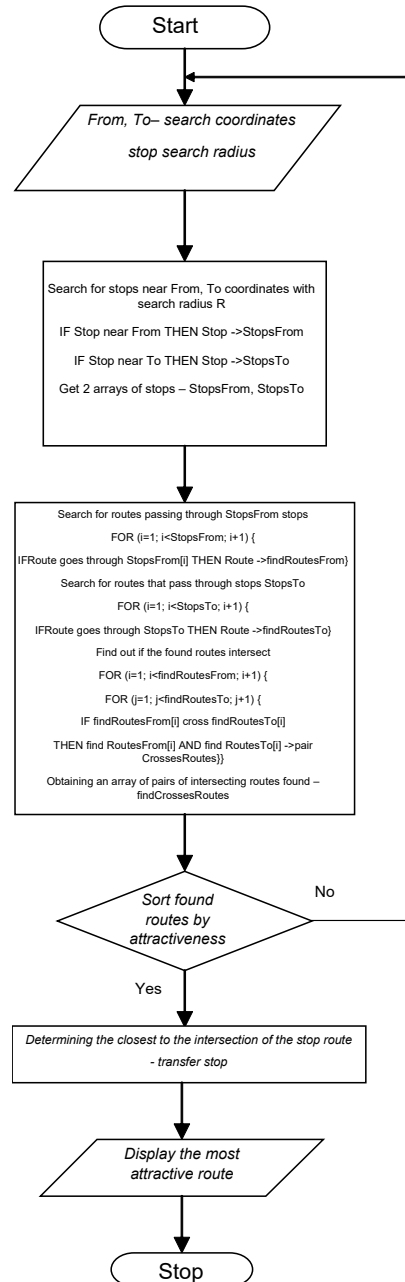


Fig. 10. Algorithm for finding routes by stops with transfers

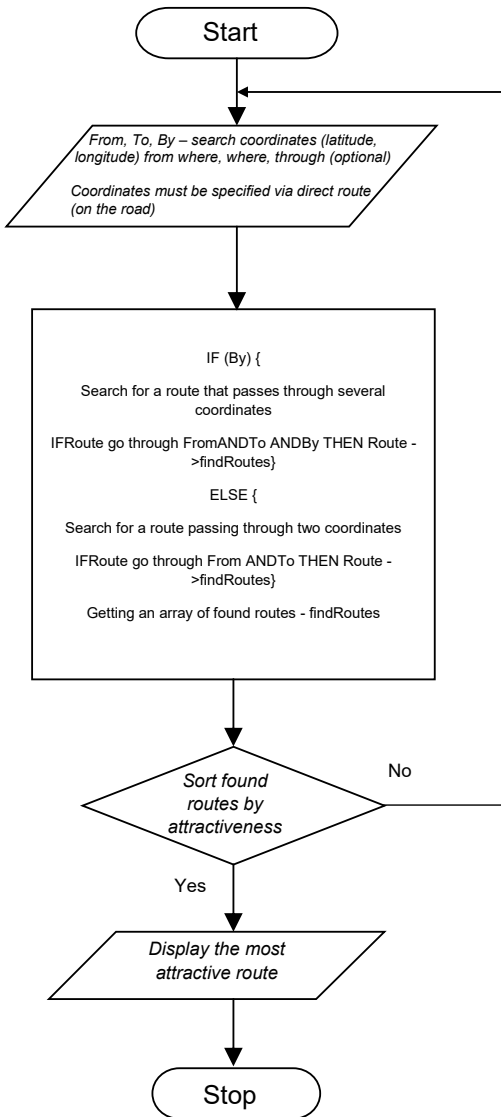


Fig. 11. Algorithm for finding routes by coordinates

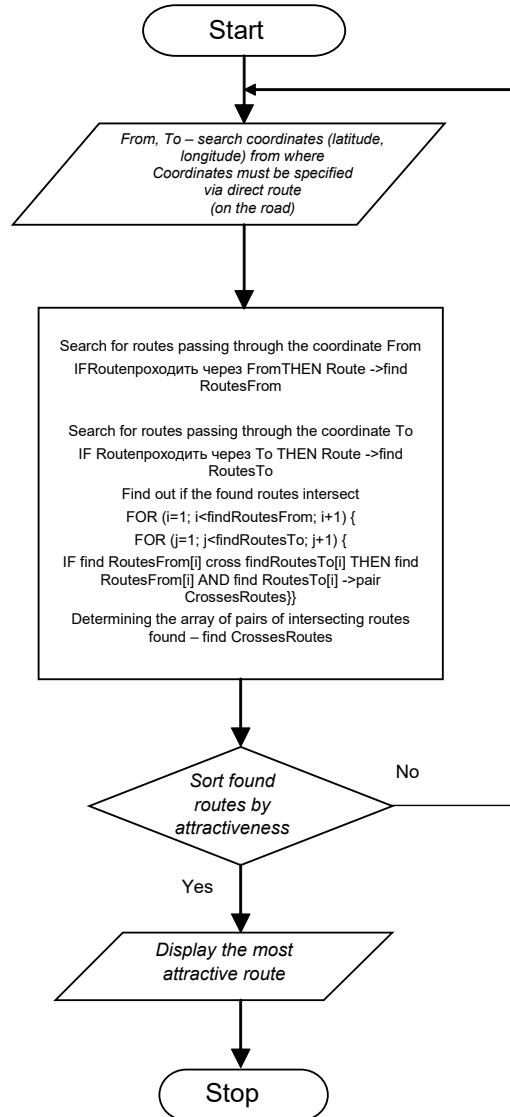


Fig. 12. Algorithm for finding routes by coordinates with transfers

According to the algorithms shown above, the automatic route search consists of entering the search coordinates From, To, By with the corresponding search radius R. Then using the calculation unit determines the available route options (according to the entered coordinates) and gets data sets. Then the search for the most attractive routes takes place and the corresponding data set is formed. In the resulting data set, you can sort routes by attractiveness (according to certain criteria (route duration, route length, etc.)). Then the most attractive route is shown on the display. In the future it is planned to develop software and user interface for this project.

8. Conclusions

Developed route search algorithms can be adapted to different vehicles, not just public transport. These diagrams and structures are part of an intelligent search for routes for public transport passengers. For the practical implementation of this system requires the availability of special technical means (Smartphone, mobile phone, trackers, etc.). The system provides databases, including UserShareDb.db – a database of users with saved jobs, accommodation, shopping, leisure, etc.

The developed model of choosing an alternative route for the population of the city takes into account the cost of travel on the route, the average interval of vehicles and the fullness of the vehicle. The determining criterion in choosing a rational (effective) option is the attractiveness of the route. The most attractive route will be the one for which his score will be the highest among others.

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REVIEW

**AN INTRODUCTION TO LINGUISTIC SYNERGETICS
BY T. DOMBROVAN¹**

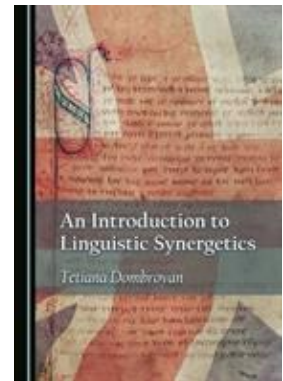
(<https://www.cambridgescholars.com/product/978-1-5275-0570-4>)

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Nationality of the author	Ukraine
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“Why does language change over time? What are the triggers and mechanisms of changes on different language levels such as phonemic, morphemic, lexical, and syntactic? Why is lexis subject to rapid changes and innovations while syntactic constructions tend to retain certain stability throughout centuries? How did it come about that within a few centuries the English language has changed its grammatical system from synthetic to analytical?” These and some other questions get close consideration in the book “An Introduction to Linguistic Synergetics” by Tetiana Dombrovan (ISBN: 1-5275-0570-7 ISBN13: 978-1-5275-0570-4) (<https://www.cambridgescholars.com/product/978-1-5275-0570-4>).

¹ Prof. Tetiana Dombrovan is a well-known linguist in Ukraine. She is the head of the English Philology and Translation Studies Chair at Odesa National Polytechnic University (Ukraine). The author’s spheres of scientific interest include historical linguistics, English grammar, linguistic synergetics. Her doctoral thesis (“A Synergetic Model of the Development of the English Language” 2014) advances diachronic linguosynergetics by modeling the history of the English language as a synergetic process with a special focus laid on outlining principles and mechanisms of language change and development.

The book was released by Cambridge Scholars Publishing (<https://www.cambridgescholars.com>) – an independent academic publisher (since 2001), founded by former lecturers and researchers from the University of Cambridge, aiming to provide a forward-thinking publishing service that champions original thinking (<https://www.cambridgescholars.com/pages/who-are-cambridge-scholars-publishing>). Since the time when it first came out on 17 January 2018, “An Introduction to Linguistic Synergetics” has been cited 22 times according to (<https://scholar.google.co.uk/citations?user=SMwXuzYAAAAJ&hl=en>). This shows that the book is of significant interest to researchers.

As the author says in the Preface, the questions posed at the beginning of the book came from her interest in the theory of language development and motivated her to look for a new approach to the issues of language change (p. vii).

The book can be viewed as an introduction to a novel methodology of language development studies, namely, diachronic linguosynergetics. The Table of Contents includes, besides Preface and Acknowledgements, four chapters, References, and Index.

Chapter One “Synergetics: The Study of Complexity” (pp. 1–26) considers synergetics from a historical retrospective, dwelling upon its status and tasks, outlining its peculiar features and key concepts, disclosing the interdisciplinary essence of synergetics and the application of its methodology in sciences.

Chapter Two seeks an answer to the question “What is Linguistic Synergetics?” The reader will find here a definition of linguistic synergetics (“a methodological approach to the description of the dynamic space of language”, p. 29), a wide range of its possible applications to language studies (pp. 29–32), the main aims and tasks of linguistic synergetics, among which is “to reveal, describe, and explain the mechanism of the inner dynamic structure of a language” (p. 32). For me, the most noteworthy is the author’s revealing of the synergetic essence of a language system, including its fractal-type structure, on the one hand, and the scale-free network organization, on the other (pp. 33–48).

Chapter Three entitled “Diachronic Synergetics: A Few Notes on the Development of the English Language” (pp. 49–96) is a great bonus for a historical linguist. In this chapter, the author explains why “appropriate division into periods” can never be achieved, how the historical changes within vowels and consonants can be viewed from a different – synergetic – perspective, and what stands behind the changes in the structure of words or their grammatical categories.

Chapter Four “A Synergetic Model of Language Development” (pp. 97–124) is also based on the history of English and represents the overall evolution of the language in the three perspectives: 1) Language Development as a Synchronisation of Tempo-Worlds in the Grammatical System; 2) Language Development as a Change of the Parameter Pattern of the Language System, and 3) Language Development as a Change of the States of the Language Mega-System.

The “References” section contains a list of academic works by linguists and, mostly, non-linguists, whose findings and reflections contributed to the theoretical and methodological foundation of the research presented in the book.

“An Introduction to Linguistic Synergetics” has a good layout with a handful of illustrations, eighteen figures, and twenty-eight tables to make reading easier, even for a non-specialist. I would also like to mention the clarity of definitions and of the author’s style, on the whole. Each chapter is subdivided into sections dealing with one or two issues, gradually leading the reader from a simpler notion to more difficult ones. All this enables to expand the audience of the book, including, besides experienced linguists, a wide range of university students researching complex systems of different ontologies, language included.

NOTES