

ISSN 2311-8806

Modern European Researches

Issue 1
2018



Salzburg, Austria

Modern European Researches Journal is the peer review journal, which reflects the most outgoing scientific investigations in such fields of knowledge, as pedagogy, education and training, comprehensive study of human, psychology, social problems of medicine and ecology; philosophy, sociology, political science, jurisprudence, economics; language and literature study, study of art, study of culture.

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SEEBURGSTRASSE 7,
5201 SEEKIRCHEN AM WALLERSEE,
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PUBLISHER@DOAJ.NET

ISSN2311-8806

Authors are responsible for accuracy of the information, contained in the articles.

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Printed in Austria, 2018



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THE LEGAL NATURE OF TRANSACTIONS CONTRAVENING PRINCIPLES OF PUBLIC ORDER AND MORALITY

The concept of 'public order' reveals how the state and society function as a whole. It illustrates the most important aspects of a legal system: contractual regulation and property relations, together with the political system and economic structure, and the relation between an individual and the state.

The history of the concept of public order in Russia is a rather long and unique one. Today's Russia tries to create the conditions for the normal functioning of market economy institutions. The concept of public order has undergone some serious changes, starting with the pre-revolutionary Tsarist times, followed by the Soviet era and then the perestroika period.

This article aims at analysing the legal nature of transactions contravening the principles of public order and morality, in an effort to indicate the difficulties to inherent in grasping this difficult concept.

Keywords

public order, legal nature, morality, transactions

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The issue of antisocial transactions' nullity in most scholarly studies has only been considered unsystematically, which contributes to the problems of law enforcement practice in modern Russia. The objective of this work is a comprehensive study of the invalidity of transactions, violating the foundations of public order and morality in Russia, as well as the theoretical justification of conclusions and recommendations aimed at further improvement of legislation and law enforcement practice.

This work therefore addresses the following topics:

- the legal nature of a transaction contravening public order and morality (antisocial transaction);
- the legal basis of confiscatory sanctions envisaged in the CCRF along with the problems faced by judges applying the sanction of 'civil forfeiture';
- the criteria of recognition of transactions as those that 'contravene the fundamentals of public order and morality' on the basis of case study and scholarly writings;
- the relationship between the objective and subjective components of antisocial transactions, and the corresponding form of guilt for persons who have committed it;
- the essence of such objective criteria as 'fundamentals of public order' and 'morality'.

The objective of this piece of research is to identify and analyse deeper the trend of the development of the concept under discussion, along with its impact on the balance between public and private in modern Russia.

The subject matter of the study is the body of norms on the invalidity of antisocial transactions, as well as the practice of its application and scientific ideas and views on the investigated issues.

This work relies on the historical legal research method has been widely used, due to the specificity of the topic: the examination of the nature of the phenomenon through the prism of historical development.

The theoretical basis of this work is the achievements of national and foreign jurisprudence. The empirical basis of the study is modern Russian legislation and court practice (case study).

The scientific novelty of the given research is determined by the choice of the topic and the approach to execute it. In the legal literature historical considerations have been given a secondary place. Yet, as we will see, these are indispensable for the understanding of today's Russia. The historical legal research method has enabled this study to reach conclusions that would be otherwise unattainable.

The structure of the study is determined by its purposes and tasks. To make it easier for the reader, the *IHEP* transliteration style have been used to write the names and specific Russian or Soviet terms. A bilingual approach have been used (the English translation and the Russian original) while drawing up footnotes and lists of titles, in order to simplify the comprehension of the given material and to let the reader to consult foreign sources in original.

The term 'transactions knowingly contravening the principles of public order or morality' was introduced by the Civil Code of the Russian Federation (hereinafter - CCRF) in 1994. Such transactions are also called *antisocial* in the literature and in judicial practice. During a long period (the *perestroyka* period, in particular), the notion of *antisocial transaction* was neither used by the Legislature, nor by the majority of civil law scholars. Nevertheless, this term is recently used in the civil law science as well as in the legal practice.

This term was introduced by Krasavchikov (1965). However, a number of researchers criticized the notion of '*antisocial transaction*'. For instance, Shakhmatov (1967) considered that 'such a proposal by O.A. Krasavchikov seems attractive from the outside as it considerably reduces the terms, making nearly ten words into one. Essentially, it does not reflect the specific properties of the transactions in question. Social means public, i.e. referring to the society, connected with life and relations of people in the society. The legal terms must reflect the specific sphere they refer to. The term "antisocial transactions" does not conform to these requirements. The transactions discussed represent a special type of the illegal transactions. Generally, each illegal transaction is antisocial, but not each antisocial action has a legal content' (Shakhmatov, 1967, p.226). The position of D.O. Tuzov is similar. He considers that 'the term "antisocial transactions", which is unknown to the existing legislation, is not appropriate, as it operates beyond the legal criterion of "sociality", which is far from coming to the criterion of conformance to the principles of public order and morality established by Article 169 of the CCRF...' (Tuzov, 2008, pp. 32-46).

Still, I shall use the term *antisocial transactions*, as I consider it appropriate due to some reasons. First, as it has been already mentioned, it 'reduces the terms, making ten words into one'. Second, the law itself is a social phenomenon. Any legal system is directed to secure (govern and protect) the normal functioning of the state and *society*. Legal notions are at the same time linguistic categories, which emerged in the process of language development. They represent a sort of typification of empirical properties of relevant social life phenomena. The problem in this case is not in the vocabulary as such. It is in the content of a specific term. It is common practice to use abbreviations or Latin terms as a matter of convenience, even if legal language

is supposed to be very precise. Besides, the current interpretation gives much more reasons for its discretionary application. Eventually it will, probably, be more effective to agree upon the specific understanding of such transactions and to proceed resolving some major problems. Thus, the concept of antisocial transactions represents the reaction of the Legislature to expressly illegal behaviour, violating the basics of law and morality. Article 169 of the Civil code of the Russian Federation specifies a cluster of invalid transactions, which are particularly dangerous for the society. Antisocial transactions sometimes may be associated with illegal acts that are prohibited by other branches of law.

In this respect, the question arises whether the concept of antisocial transaction may be equated to the concepts of 'crime' and 'offense'.

Speaking of crime, we make reference directly to the criminal law. In particular, in accordance with Article 14 of the Criminal code of the Russian Federation, a crime is 'a socially dangerous act, committed with guilt and prohibited by the criminal law under threat of punishment'. From this definition we see that crime encompasses high danger to the public and is punishable under the criminal code. In contrast, an antisocial transaction only leads to civil liability. The main objective of civil law is to protect property interests of the state, while public security is out of scope.

Transactions that create a threat to public security have a similar antisocial character, but they are not antisocial transactions in the strict sense. These are the purchase and sale of military weapons, explosives, ammunition, committed by unauthorized parties; transactions aimed at the production and distribution of goods and products, possessing properties that are dangerous to life and health of consumers, etc.

Antisocial transactions, in the strict sense, differ from similar actions envisaged in the criminal code. The essence of a criminal offence under Article 222 of the Criminal Code of the Russian Federation has a slightly different focus. In particular, the object of the crime is *public security*. The objective side of the crime implies unlawful *acquisition, transfer, sale, storage, transportation, carrying* of firearms and their basic parts, ammunition, explosives and explosive devices.. In order to find a person guilty and subject him to criminal liability it is enough to establish the fact of performance of the listed *actions*. As we can see, these actions when viewed in isolation, seem to fall under the scope of civil law, yet since they are related to public security, here they fall under the scope of criminal law.

An administrative offence is a 'wrongful, guilty action (omission) of a natural person or legal entity which is administratively punishable under the Code of Administrative Offences of the Russian Federation or the laws on administrative offences of subjects of the Russian Federation' pursuant to Art. 2.1 of the Code of Administrative Offences of the Russian Federation (hereinafter - CAO RF).

Talking about an administrative offence we mean a violation infringing upon public interests, for which the administrative responsibility is stipulated. Chapter 20 of the CAO RF envisage more than thirty types of administrative offences encroaching upon 'public order and security'. The object of these offences is public security, social and administrative order. Still, administrative offences differ from crimes because committing them does not cause such a grave harm to the society. The degree of 'public threat' of an administrative offence is significantly lower than of a crime.

In other words, the concepts of a crime, an administrative offence and an antisocial transaction are similar, have the same specificity, but they cannot be equated. The 'symptom of wrongfulness' unites these concepts, i.e., in all cases, these actions are illegal. Another common trait of these notions is the *guilt*, in the form of intent or negligence, which also makes these notions similar to each other. All these actions violate applicable laws.

However, in each case different branches of law come to the fore (criminal, administrative, civil).

There is another theoretical issue, which may shed light on the legal nature of the observed phenomenon: is an antisocial transaction a *transaction* or an *offence (violation of civil law)*? What is its place among other juridical facts?

As known, juridical facts may be divided into two large categories: events (inactive juridical facts) and acts (active juridical facts). Events are circumstances occurring more or less spontaneously, independently of human will (e.g. birth, earthquake, the expiration of a time period etc.). Acts, on the other hand, are circumstances occurring through human will, when a person has behaved in a certain way.

Acts may be lawful (observance of the law by citizens, application of the law by state bodies, judicial decisions, and *transactions*) or unlawful (crimes, administrative and disciplinary violations (*offence*), and *violations of civil law*). Both lawful and unlawful acts may be operational acts (a certain legal effect comes regardless whether the acting person intended to produce this effect: e.g. the creation of results of intellectual activities or innocent infliction of harm) or *juridical acts (acts of law)*, which always include the intention of the acting person to create a particular legal effect (acts of state bodies, court decisions, transactions or crimes and misconduct).

Thus, is an antisocial transaction a transaction or an offence? On one hand it meets the criteria of a transaction, which is an act of law (*a lawful act*). On the other hand it encroaches on the bases of public order and morality - *unlawful conduct*. There is one thing for certain: an antisocial transaction is an active juridical fact (it is an action), because the person has to behave in a certain way to create an effect. Even if the law does not recognize the consequences of such a transaction as lawful, still it creates a certain effect. For instance, according to the CCRF an antisocial transaction is a 'void transaction', which is invalid from the moment of its conclusion and have no legal consequences except the consequences of its invalidity.

In discussing the effect of a transaction one should note the distinction between *legal effect* and *actual effect*. Let us consider a simple example from criminal law. What is a bribe? It is a crime because this act is proscribed in the Criminal code of the Russian Federation which specifically states in Art. 290 of the CCRF: 'Bribe-taking by a functionary, in person or through an intermediary, in the form of money, securities, or other assets or property benefits, for actions (inaction) in favour of a bribe-giver or the persons he represents, if the functionary then takes actions (inaction) which are part and parcel of the functionary's official powers, or if the latter, by virtue of his official position may further such actions (inaction), and also for overall patronage or connivance in the civil service'. Such an act is pronounced a crime, however, only after a court ruling. Still, the fact remains - the bribe giver gave the money to the bribe taker in exchange for a certain service. Practically it is *a mutually beneficial transaction* between two parties. Here, the actual effect is that the functionary does or refrains from doing the thing requested by the one paying the bribe. The legal effect, however, is to expose each actor to legal liability for violating the relevant Criminal Code sections.

In fact, in 2003 the Presidium of the Supreme Court, in a criminal case of receiving a bribe, classified the actions of the accused persons as antisocial transaction (under Article 169 of the CC RF) and seized the amount of the bribe for the state's funds (The Ruling of the Presidium of the Supreme Court of the Russian Federation of 5 February 2003 No. 850п02).

Another example: the parties have agreed about the sale of dead bodies of homeless persons (Afanasyeva 2016 p147-152. Such actions are not considered as a criminal offence or an administrative offence, due to the fact that such norms are not provided in the Criminal Code and in the Code of Administrative Offences

of the Russian Federation. At the same time, it is obvious that such actions are immoral. If such a transaction were to be held valid, the seller would give the dead bodies and get paid, and the buyer would pay and get the corpses. Respectively these actions will provide an actual effect. Even if such a transaction is were to be declared as insignificant, it would still have a certain impact on the reality. The buyer becomes (albeit illegally) the owner of the corpses, and the seller pockets the money paid. Practically, the 'material welfare' of the parties has gone through some changes. It is impossible to deny the fact that there has been established, changed or terminated a certain relationship. The fact that these actions are illegal provide for the negative reaction of the Legislature. The rights and obligations arising from such transactions are not subject to legal protection by the state. Thus, the denial of the actual effect would mean that the Legislature ignores the situation as a whole. An antisocial transaction is an *action* that has a purpose that has been *defined* as unlawful, either by social norms embodied in publicly adopted statutes, or, as noted above, by the legislative *fiat* of the State.

Given the above, we can conclude that an antisocial transaction has elements of both juridical facts: transactions and offences. It is some kind of 'an offence in contractual clothes'. It is neither a lawful transaction nor an offence in its classical form.

The *interdisciplinary character* of the observed phenomenon is obvious. The Russian Legislature enshrined the rule about antisocial transactions in the Civil Code. At the same time, the confiscation consequences of such transactions gravitate to the field of public law (criminal or administrative). However, the proportionality of the consequences is that the state takes only the transferred goods ('all they have gained by the transaction'). The state does not confiscate the personal property of the parties, they are not deprived of liberty etc.

On the whole the court practice demonstrates two types of antisocial transactions:

- antisocial transactions connected with a crime (or an offence);
- antisocial transactions not connected with a crime (or an offence).

As a general rule, 'when the transaction itself forms a public offence (or the transaction is related somehow to a public offence) the dispute should be resolved in the framework of criminal or administrative proceedings. In such a case, the sanctions provided for an offence, and not the consequences provided for by Article 169 of the CCRF, shall apply'.

The application of Article 169 of the CCRF in the absence of a conviction invites many questions. For example, whether it is possible to apply specific guarantees inherent in public law to civil proceedings (presumption of innocence etc.). Liability under Russian civil law comes for the offence only in the case of guilt. Guilt is automatically assumed until the interested party proves the opposite, that is, in civil law there is a presumption of guilt.

Given the complexity of the category it would be logical to assume the following. When an antisocial transaction is paired with a public offence (including a crime), the rules of public law shall apply in the first place. The rules of Article 169 of the CCRF shall apply according to the residual principle. In cases, when an antisocial transaction does not form a public offence (and is not connected to it), the rules of civil law should be applied. These features distinguish the Russian concept of antisocial transactions from the one in the European countries. The deeper analysis of case studies on this issue will follow later.

As known, the Russian legal system has different branches of law. At the same time, legal science is familiar with different interdisciplinary categories. It would be pointless to try to put the categories of public order and antisocial transactions

in the framework of civil, criminal or administrative law in order to comply with the formalities. This approach would actually leave certain legal tasks unresolved.

In fact, the case of antisocial transactions in the Russian Federation is a complicated one. There are a lot of rules and categories (for example, in the field of land and civil, labour and civil, labour and administrative law), which can work effectively only under the conditions of interaction and cooperation. Legislative gaps are often highly visible when it comes to such categories and concepts. A profound understanding of the *interdisciplinary legal nature* of such phenomena is highly required. This is the only way to build an appropriate legislative framework.

The Russian concept of public order is somewhat different from the one of other countries. Russia in this respect is a unique country. Being a Civil law state and having a lot in common with the legal systems of European countries, at the same time, it inherited some specific tools of the Soviet era. This particular era has left its mark on the interpretation of this concept. In Soviet times, a certain 'public' orientation of civil-law norms was quite consistent with the principle of priority of public property. Currently, the rule about confiscation envisaged in the Civil code causes a lot of debate.

The main difference today lies in the consequences (measures) applied by the Russian state to those who had violated public order by committing an antisocial transaction. A typical consequence for a Civil law country is *exclusion of restitution*. The Civil code of the Russian Federation provides also for confiscation under certain circumstances.

It is known that the development of Russia as a capitalist state has begun relatively recently. That is why legislative tools as well as the society itself are not quite ready for radical changes yet. In fact, Europe has gone a long way in its legislative developments, which is fundamentally different from those in Russia. It seems that most European countries managed to resolve specific 'public order' problems while at the same time avoiding the use of the confiscation remedy that exists in Russian civil law.

For example, the Italian Civil Code has a rule about the nullity of a contract if it has an unlawful cause, including when it is contrary to public order (Art. 1428 and Art. 1343 of the Italian Civil code). However, the consequences of such contracts are not associated with the rule about confiscation. In order to apply the confiscation 'of the product or profit of the crime (*reato*) and the property used to commit it', there should be a conviction pursuant to the Art. 2614 of the Italian Civil code.

Similar norms are in the French Civil Code (Art. 1133: 'A cause is unlawful where it is prohibited by legislation, where it is contrary to public morals or to public policy') and BGB (German Civil Code: Section 138 'Legal transaction contrary to public policy; usury'). American contract law also does not apply confiscatory sanctions to 'agreements contrary to public policy.' The question that occupies American lawyers is whether 'one or both parties should be allowed a remedy in restitution' (Brian, 2012).

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DETERMINATION OF THE FACTORS AFFECTING THE EFFICIENCY OF STARTUPS IN IT BUSINESS

Abstract

The article is devoted to the research of factors that must be taken into account in the process of organization and launch of startups in IT business from the point of view of its management. It also covers the analysis of world trends in startup development. The results of a survey of entrepreneurs and innovators, which was aimed at the identification of dependencies and revealing of the most significant factors, are presented and analyzed in this article.

Keywords

startup, effectiveness, factors of effectiveness,
IT business, management of a startup

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Introduction

For the purposes of this article it is necessary to define the meaning of “factor”. According to the Oxford English Dictionary, factor is a circumstance, fact, or influence that contributes to a result. It also can be described as something that helps to the production of a result and has an influence on its quality (*Millhollan, 2015*).

It is better to define factor is the influential activity (or circumstance) which contributes to a result and determines its characteristics. Such definition shows that factor can have not only positive but also negative influence and it “determines the characteristics” of result depending on the essence of factor.

It is also necessary to define the term startup, which is widely debated and interpreted differently in a scientific environment. In simple words, startup is a fledgling business enterprise.

Stanford professor Steve Blank defines startup as an organization formed to search for a repeatable and scalable business model (*Blank & Dorf, 2012*). Warby Parker co-

CEO, Neil Blumenthal says that startup is a company working to solve a problem where the solution is not obvious and success is not guaranteed (*Robehmed, 2013*).

An entrepreneur and author of the New York Times bestseller “The Lean Startup”, Eric Ries, supposes that startup is a human institution designed to deliver a new product or service under conditions of extreme uncertainty (*Ries, 2011*). Another opinion says that startup is an organization that pursues opportunities without regard to the resources they currently control (*Wasserman, 2014*).

European Startup Monitor has its own concept to approach and define startups by three characteristics:

1. Startups are younger than 10 years;
2. Startups feature (highly) innovative technologies and/or business models;
3. Startups have (strive for) significant employee and/or sales growth (*Kollmann, Stockmann, Hensellek & Kensbock, 2016*).

According to the Business Dictionary, startup is an early stage in the life cycle of an enterprise where the entrepreneur moves from the idea stage to securing financing, laying down the basis structure of the business, and initiating basic business operations.

There is also an idea of defining startup by a state of founders’ mind. It means that it does not matter how many years company has been working or how much revenue it has generated. The main distinguishing feature are the speed of changes, adaptation and decision making, active production of innovative products (*Shontell, 2014*).

The most popular and often quoted are the definitions proposed by Steve Blank and Eric Ries. We have chosen the Stanford professor’s definition as it reflects the main characteristics of startup (the search which includes uncertainty) and its purpose (working, productive, “repeatable and scalable” business model). Now we can move to the discussion and determination of the factors affecting the efficiency of startups.

First of all, it is necessary to analyze the activity of startups in the world and reveal current trends. For this purpose, we can use the data from the Kauffman Index report of startup activity in 2016 (Table 1) (*Fairlie, Reedy, Morelix & Russell, 2016*).

TABLE 1. THE MAIN INDICATORS OF STARTUP ACTIVITY, 2010 - 2016

№	Indicator	2010	2011	2012	2013	2014	2015	2016	Growth rate, %
1	Startup Activity Index, shares	0.08	-0.08	-0.77	-0.73	-0.95	-0.33	0.38	375
2	Rate of New entrepreneurs, %	0.34	0.34	0.32	0.30	0.28	0.31	0.33	-2.9
3	Opportunity Share, %	73.84	74.16	74.10	78.39	78.20	79.57	84.01	17.8
4	Startup Density Rate, shares	100.1	93.7	80.7	77.7	81.0	81.9	80.4	-19.6

The Index of Startup Activity had a decreasing tendency in the past. However, it was recovering since 2014 and now has even overtaken the level of 2010 (before decline and beginning of decrease). The rate of new entrepreneurs was decreasing in the period under study, but now it is almost as high as in 2010 and 2011.

Opportunity share shows and it is calculated as the percentage of new entrepreneurs driven primarily by “opportunity” versus “necessity”. Startup

density refers to the saturation of new companies as employers and measured as the number of new employer businesses normalized by total business population.

Period of decline in activity of new entrepreneurs (from 2011 to 2014) may be associated not only with attitudes or entrepreneurial abilities of people but also with economic downturns, declines in the purchasing power of the population and investments or with decrease in the number of innovations which new entrepreneurs could use in their startups.

The data from Kaufman index cover only the USA dynamics, but the European Startup Monitor reports does not suit for comparison of the situation and trends. This is because ESM is mostly focused on the surveys and reveals qualitative characteristics of startups for country comparison, while the data from the USA are broad (cover national level) and numerical indexes.

European Startup Monitor provides an overview of the industries in which the startups are operating. The results indicate the relevance of the digital economy for innovative European startups; the digital economy accounts for five of the seven major categories.

Most startups stated that their venture belongs to the IT/software development sector (15.0%) followed by software as a service (12.2%) and industrial technology/production/hardware (8.3%). The most frequent categories on the level of individual countries are IT/software development (8 countries) and software as a service (8 countries) (*Kollmann, Stockmann, Hensellek & Kensbock, 2016*).

The overall statistics for Russian startups is not collected. Companies and statistic agencies are mostly interested in and concentrated on the investments and activities of venture capitalists or funds and indicators of different startups incubators and accelerators. This can be partly explained by the fact that Russian IT startup environment is emerging and the infrastructure is still at a forming stage.

The state and prospects of the IT market and IT startup activity in different countries depend a lot on the level and pace of development of the IT industry in them. To evaluate and compare the competitiveness of the IT industry in different countries, there used a special index. This indicator includes the assessment of such kinds of existing environment in countries as business, legal and research and development. It also takes into account the IT infrastructure, existing support for IT industry development and human capital. The value of the index for each country is calculated in accordance with the estimates of these characteristics.

Russia took the 46th place in the ranking of countries by the index of the competitiveness of the IT industry in 2013 with the overall index score of 35.2. The elements of the overall grade that were estimated higher were Human Capital (52.4), Legal (50.0) and Business (48.4) Environments. These indicators would allow raising the country in the rating, but the IT Infrastructure (32.0), Support for IT Industry Development (31.1) and, especially, Research and Development Environment (15.4) had a large influence on the result and lowered the grade (*IT industry competitiveness index, 2011*).

Among other factors, the time selected for start-up implementation is critical for its effectiveness. This requires conducting a market analysis and study of that segment of the IT market, which is focused on products and services. Table 2 presents dynamics of changes in main indices of the Russian market of information technologies (*Russian Federal State Statistics Service*).

TABLE 2. THE MAIN INDICATORS OF RUSSIAN IT MARKET, 2011 - 2016

№	Indicator	Units	2011	2012	2013	2014	2015	2016	Growth rate,%
1	Russian IT market sales volume	billion. rub.	518.2	595.2	658.5	745.7	667.2	712.6	37.5
2	Volume of software and IT services export from Russia	billion. US dol.	3.3	4	4.6	5.4	6	7	112

Since there is an upward sales trend in the Russian IT market, it can be concluded that there is a favorable situation for launching a startup in Russian IT business. The main problems of the IT industry and IT market are lack of support for IT industry development in Russia and poorly developed IT infrastructure, which limits the emergence of the Russian IT start-ups, while could become competitive in the international market.

Materials and methods

Special survey was conducted and the questionnaire for this survey was developed by the author in order to reveal the factors affecting the efficiency of startups in IT business.

This questionnaire included 12 factors and also three questions: the opinion of respondents about the area of organizer's specialization that is needed to increase the efficiency of startup, the effective ways to attract the target audience of a startup and the payback period of effective startup (if the most important management factors are taken into account).

A blank of specially created questionnaire that was used for the survey is presented in Table 3.

TABLE 3. A BLANK OF SPECIALLY CREATED QUESTIONNAIRE

Dear participant of the survey!	
Please, rate the degree of influence of the following factors on the efficiency of startups in the IT industry, using one hundred units scale (0 - 100).	
Factor	Rating
1. The innovativeness of a product (or an idea)	
2. A clear plan of action for the launch of the startup and clearly defined requirements	
3. The presence of the business plan of startup	
4. Qualification and education of startup manager	
5. Organizer's experience in project management	
6. Qualification and education of project team members	
7. The experience of team members in project work	
8. Manager's and project team's readiness to learn new and develop professionally	
9. The interests of the investor to be taken into account	
10. Customer orientation	
11. Availability of own financial resources	
12. Socio-economic impact of the project	

Please answer the following questions:	
In what field should the organizer be qualified to achieve greater efficiency of a startup?	
<input type="checkbox"/> Management and business <input type="checkbox"/> Subject area of startup <input type="checkbox"/> Other: _____	
What ways to attract the target audience of a startup You think are most effective?	
<input type="checkbox"/> Advertising in the media <input type="checkbox"/> Commercial offers <input type="checkbox"/> Social networks	<input type="checkbox"/> Phone calls <input type="checkbox"/> Personal meetings <input type="checkbox"/> Other: _____
In Your opinion, what is the approximate payback period for an effective startup in the information technology industry? (taking into account the factors You rated as important for the efficiency of a start-up)	
<input type="checkbox"/> Less than one year <input type="checkbox"/> 1-2 years <input type="checkbox"/> 2-3 years <input type="checkbox"/> Other: _____	
Thank You for participating!	

The survey was also conducted in two different groups: the first group (G1) was the group of future startups founders who are only thinking about launching their startups. The group 1 consisted of 10 people.

The second group of respondents (G2) consisted of investors, innovators and those people who are experienced in startups (26 people).

Respondents evaluated the factors affecting the efficiency of startups by the scale from 0 to 100. After that the data were collected and analysed to reveal main ideas and compare two groups' opinions.

Results

It is possible to analyze these data, determine the main factors and compare the results of two groups (Table 4).

TABLE 4. THE RESULTS OF SURVEY FROM TWO GROUPS AND THEIR COMPARISON

Factors	Rating		The difference (G1-G2)
	G1	G2	
1. The innovativeness of a product (or an idea)	88.5	69.6	18.9
2. A clear plan of action for the launch of the startup and clearly defined requirements	86.3	64.2	22.1
3. The presence of the business plan of startup	78.5	61.2	17.3
4. Qualification and education of startup manager	68	63.6	4.4
5. Organizer's experience in project management	71.5	63.8	7.7
6. Qualification and education of project team members	74.5	66.3	8.2
7. The experience of team members in project work	73.5	57.3	16.2
8. Manager's and project team's readiness to learn new and develop professionally	83.5	73.8	9.7
9. The interests of the investor to be taken into account	67	60.4	6.6
10. Customer orientation	78.5	84.7	-6.2
11. Availability of own financial resources	60	59.3	0.7
12. Socio-economic impact of the project	69.6	58.3	11.3

The group of investors, innovators and people experienced in startups evaluates management factors in a more critical way, giving generally lower scores. The groups have similar opinion about the importance of manager's and project team's readiness to learn new and develop professionally. Two groups also agree in the importance of innovativeness of the product, though group 1 gives the first place to this factor and group 2 (more experienced) gives it the third place.

We also can conclude that group 1 underestimates the significance of customer orientation of startups, whereas the group of investors, innovators and startup organizers gives the highest assessments to this factor and it takes the first place is the rating of group 2. Members of group 1 suppose that the clear plan is very important, but experienced innovators move this factor in fifth place.

It is also useful to analyze group opinions about the area of organizer's specialization that contributes more to the efficiency of startup (Picture 1).

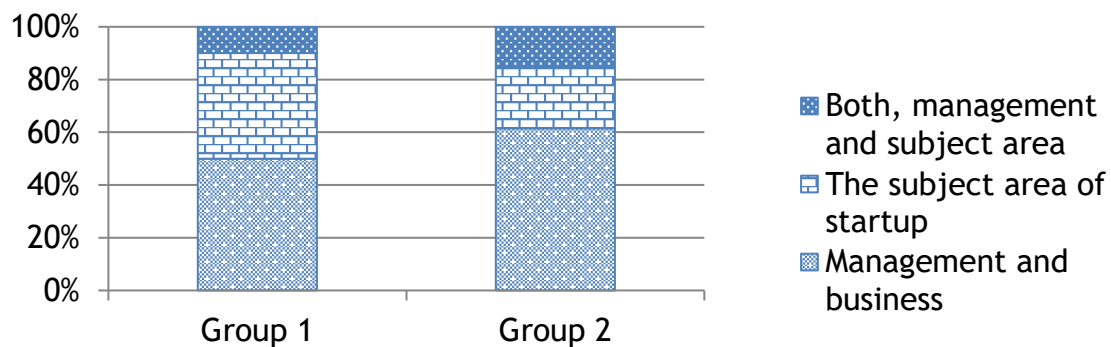


FIGURE 1. OPINIONS OF TWO DIFFERENT GROUPS ABOUT THE AREA OF ORGANIZER'S SPECIALIZATION THAT IS NEEDED FOR THE EFFECTIVE IT-STARTUP

Both groups indicate that the required and preferable area of organizer's specialization for effective startup in IT business is management and business. However, the future startups organizers tend to overestimate the meaning of organizer's specialization in subject area of startup for its success and efficiency.

Now we can analyze the opinions of respondents about effective ways to attract the target audience (Picture 2).

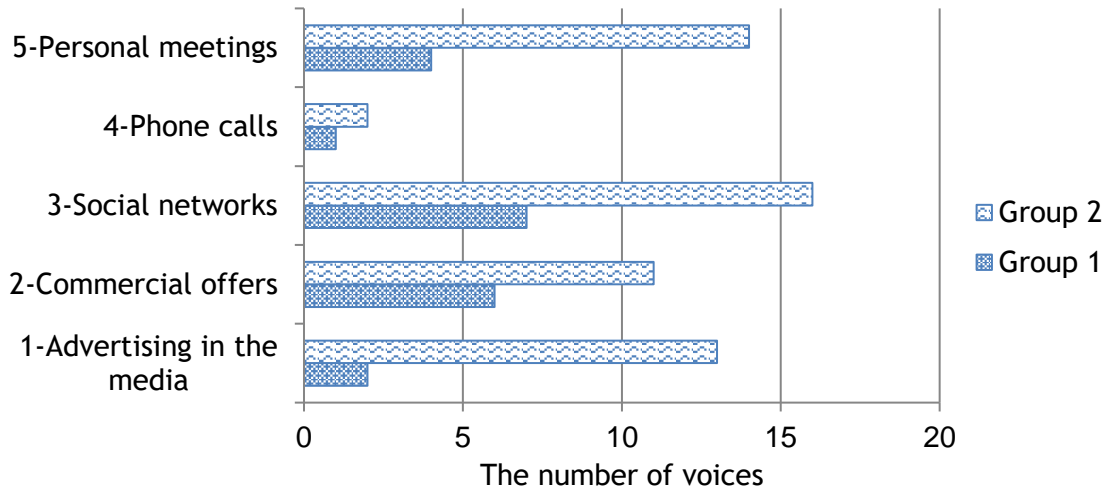


FIGURE 2. ANSWERS OF TWO GROUPS ABOUT EFFECTIVE WAYS TO ATTRACT THE TARGET AUDIENCE

Social networks are considered to be the most effective way to attract the target audience in both groups. Members of group 1 underestimate the effectiveness of personal meaning and advertising in the media in comparison with more experienced members of group 2, giving preference to commercial offerings. Both groups consider phone calls the least effective way to attract the target audience of a startup in the IT business.

Discussion

According to the results of survey, it is possible to conclude that people with different experience in startups understand and recognize the importance of product innovativeness for its success.

Before making the decision about launching the startup in IT business, it is necessary to calculate the benefits of the project and its effectiveness. Managers should use different indicators to evaluate the success of the project and to measure its benefits, according to the specific of a project and goal of a startup.

The main problems of the IT industry and IT market, that were discussed in this article are the lack of support for IT industry development in Russia. Poorly developed IT-infrastructure limits the launch and development of Russian IT-startups, though they could become competitive in the international market, which can be proved by the increase in the volume of software and IT services export from Russia during the last six years.

We also can assume that there is a difference in understanding of main factors affecting the efficiency of startups that should be taken into account in the process of startup management.

Experienced innovators and startup founders emphasize the customer orientation as the most important factor, while the aspiring innovators believe that innovativeness

is the main factor that can ensure startup's success without paying much attention to customer needs and requests.

Recommendations

As there is a tendency of increase in sales volume in Russian IT market, it is possible to conclude that now there is a favorable situation for launching startup in Russian IT business. The Russian IT market is growing and it is preferable for Russian IT companies to get and keep the most significant share. It will let the consumer market of IT products and IT services to be less dependent on foreign supplies and currency fluctuations. The growth rate of export shows that the Russian IT services and software was becoming more and more demanded and we can conclude that competitiveness of these Russian items has been growing in the last six years.

Moreover, the innovativeness was defined as one of the most influential factor of project management affecting the efficiency of startup. It is also necessary to manage the project in a way that increases the customer orientation of startup in IT business because this factor also contributes to its development and success. Thoughtful and balanced management of the startup, considering the influence of major factors on its effectiveness (payback period as a measure of it).

On the macroeconomic level, investments in IT infrastructure, active support of IT industry development from governmental and non-governmental sources, and creation of enabling research and development environment in Russia are those necessary activities that will contribute to further growth of Russian performance indicators of IT industry and IT market.

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CASE STUDY AS A MEANS OF FORMING ANALYTICAL COMPETENCE OF FUTURE SPECIALISTS FOR DOCUMENT MANAGEMENT AND INFORMATION ACTIVITIES

Abstract

The article is devoted to an effective means of forming analytical competence of future specialists in document management and information activities - case study method. Based on the research of the case-study method theoretical foundations and the analysis of its practical use in educational process, the essence of the method, the history of its development and formation, functional capabilities, requirements for development and construction of cases, prospects of the case study method in the process of developing the professional and personal qualities of future specialists are revealed. It is proved that case study is an effective method of forming analytical competence of future experts in document management and information activities, since the work with a case is analytical work.

Keywords

Case-method (case study), analytical work, analytical competence,
future specialist in document management and information activities

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1. Introduction

1.1. Relevance

The introduction of case study into the educational environment and directly into the educational process of higher educational institutions of the Ukrainian education system is especially relevant in the current conditions, which is explained by several trends. Firstly, it is the introduction of a competence approach, that is, the change in the educational paradigm from the position "I know that" to "I know how". Secondly, it is the process of Ukraine's educational system European

integration, the search for ways to introduce European pedagogical experience into the educational system of Ukraine. Thirdly, economic changes - globalization, oversaturation with information, the widespread introduction of information and communication technologies. Lastly, the growing demands of the labor market - one must possess not just subject knowledge and skills, but meta-subject skills and personal qualities, be ready to do multitasking work.

1.2. Importance of the investigated problem

At present, analytical competence is regarded as a special quality of a specialist's professionalism. Practical analysis of future experts in document management and information activities training experience testifies to the presence of only uncoordinated elements of analytical competence formation, presented in the content of different academic disciplines. However, such elements do not have a systemic character, which significantly reduces the opportunities for carrying out analytical work in both educational and in further professional activities.

Thus, the analysis of pedagogical practice of training future specialists in document management and information activities concerning the development of analytical competence leads to the search for new, as compared with the existing tradition, more effective methods of teaching.

As a result of future specialists in document management and information activities analytical competence forming effective methods research, it was revealed that it is the case study that has significant advantages, as it is characterized by two aspects. The first one is connected with research activity, for which the case study acts as an empirical method of research for any field of science. The second - characterizes the case study as an interactive method of teaching, which is based on theoretical discussion, analysis of a real or simulated situation from a person's life. Thus, the case study is both a method of training and a method of future professional activity for a specialist in document management and information activities.

1.3. Features of specialists in the field of training " Documents management and information activities»

Training of specialists in the field of "Documents management and information activities" is a unique sphere in the education of the CIS countries, in particular Ukraine and Russia. This is because a graduate can work in any field of activity that requires documentation, in the public or private sectors of economy and social sphere. In addition, one can occupy any relevant position at the hierarchy level: secretary, personal assistant, information services manager, documents and information network administrator, head of the documents management department, head of the personnel department, analyst, etc.

Taking this into consideration, the educational process, firstly, should be based not so much on traditional as on active / interactive teaching methods. Secondly, it must be balanced with respect to the use of different teaching methods, both within the framework of one particular academic subject studying, and in the process of mastering a profession in general, which allows to form professional competence and its elements: analytical, communicative, prognostic, creative and other competences.

1.4. Status of the problem

In the context of analytical competence forming problem for future specialists in documents management and information activities, the issue of finding effective methods of training is the most difficult. Analysis of psychological and pedagogic literature allowed to distinguish the case study as a method that stimulates the study of theoretical material and its practical application, developing the intellectual abilities and personal qualities of future specialists among a number of interactive

teaching methods. A special characteristic of the method is that it is both a method of scientific cognition and a method of group learning. It is based on methods of analytical activity (analysis, synthesis, classification, separation of the main and secondary, search for cause-effect relationships, etc.), which allows students to develop analytical competence in practice.

1.5. Hypothesis

The process of forming the analytical competence of future specialists in documents management and information activities will be more effective if the active methods of training are systematically used, in particular the case study, which is based on analytical methods.

2. Methodological Framework

The theoretical and methodological basis for studying the question posed was the work of such domestic and foreign scientists and researchers as Yu. Surmin, O. Sidorenko, A. Furda, I. Zhigiley, I. Gladkikh, Sh. Bobokhuzhaev, Z. Yuldashev, O. Maksimova, S. Sikorskaya, V. Yagodnikova, I. Krasilnikova, L. Lun'ova, O. Ogienko, J. Björner, D. Robin, M. Liedere, J. Erskine, M. Norfi, etc. In particular, Yu. Surmin in his works revealed the essential characteristics of the case study, presented the classification and gave the characteristics of cases types, the technology of their creation, and the interdependence of analytical work and case study (Situational analysis or anatomy of the case study (2002)) In his work "Case study: architecture and opportunities (2012), Yu. Surmin considers the method of cases through the prism of changes in society and the world and the practice of its effective use; in the article "Case study: establishment and development in Ukraine" (2015) he describes the history of this method introduction into the Ukrainian education system and the problems faced by practitioners.

3. Results

3.1. History of the method origin and development

The case method or case study method is a method of situational learning based on real life and real problems, which requires from the student to make an appropriate decision in the proposed situation. It includes a description of specific practical situation with the problem, reference and additional information about the situation, methodological materials and instructions. It develops the ability to determine the problem, to consider it from all points of view, to search for missing information, to justify one's point of view (Azimov, 2009).

The name of the method comes from the Latin "casus" - a confusing unusual case and the English "case" - a briefcase, a suitcase and "study" - learning. Thus, the etymology of the word explains the content of the method - a package (briefcase) of information, documents that helps to identify and solve a problem in a given situation with a learning purpose.

Scientific literature presents various approaches to the definition of the case study. I. Gladkikh understands the case as a specially developed and prepared educational material that contains a structured description of a situation borrowed from real practice (Gladkikh, 2005). Sh. Bobokhuzhaev and Z. Yuldashev consider the case as a set of conditions and obligations describing specific, real circumstances at a certain stage (Bobokhuzhaev & Yuldashev, 2006). Yu. Surmin defines the case as a rather complex and multifunctional intellectual structure, characterized by a variety of functions (Surmin, 2015). However, its essence remains unchanged -

encouraging students to identify the problem in the described situation and to find its solution through a comprehensive analysis.

Scientists tend to think that the basis of situations analysis method was founded by Socrates in his main method of dialectics (the so-called "Socratic method") - the search for truth by posing leading questions (dialogue as a method of solving the problem). In addition, it is noted Aristotle's contribution to the development of the situational analysis, who considered the process of analyzing the situation in such aspects as: exercise, conversation, philosophical knowledge. In addition, Aristotle's contribution lies in the justification of the analysis method as such.

Yu. Surmin draws attention to the parables of Jesus Christ, because considering a specific situation and analyzing it, a person comes to this or that conclusion, that can also be considered as a case study. In addition, the author draws attention to theatrical art, opera, ballet, where the situational approach plays the main role from the origin to the present time (Situational analysis or anatomy of the case study, 2002). And the skill of describing the situation in art significantly influenced the requirements to writing modern cases.

The scientific substantiation of analysis method significance by R. Descartes, the development of the central concept of pragmatism by J. Dewey - experience, the emergence of the formal logic of G. Frege, B. Russell and the scientific achievements of many other philosophers and thinkers who made a significant contribution to the formulation of the laws of scientific knowledge, logic laws, the scientific apparatus of studying various problems - thinking, understanding, meaning, communication, etc. - led to the appearance of analytical philosophy in the XX century. And "the integration of analytics, analytical philosophy and the philosophy of pragmatism, which reached a rather high level of development in the US, to the education system led to the emergence of case study" (Surmin, 2012).

For the first time, the case study method was used in the educational process of the Harvard Law School in 1870 by Professor Christopher Columbus Lengdello. In the period from 1909 to 1919 this method was actively used at medical and law faculties. The first textbook on writing situational exercises was published in 1921 by David H. Copeland, a professor at Harvard University. In 1925, the world saw the first collection of cases, published in the reports of Harvard University. Since the 50's of the XX century the case study method has spread among educational institutions of Western Europe. In the Soviet Union, special attention to situational analysis was paid in the 70-80's of the XX century. That was explained by the tendencies to active reform of the economy.

In independent Ukraine, the case method was first widely introduced in 1992 at the Institute of Public Administration and Local Government with the direct participation of specialists from the School of Government named after John F. Kennedy at Harvard University (Surmin, 2015). In 2002, specialists of the Center for Innovations Yu. Surmin, A. Sidorenko, V. Loboda, A. Furda published the fundamental work "Situational analysis, or anatomy of the case study method".

Today, there are two case study schools in the world - Harvard (American) and Manchester (European), which have insignificant differences. So, the first one is aimed at finding the only correct solution to the problem issue, and the second one is aimed at the multivariance of the solution of the problem. In addition, the volume of Harvard cases is 20-25 pages, plus 8-10 pages of supplements, and the Manchester case is 1.5-2 times shorter.

In our time, the case study method is in the field of view of many scientists and practitioners of the Ukrainian educational system. And the introduction of the method as interactive one in the learning process of individual disciplines

is at the stage of comprehension and adaptation of foreign experience to the Ukrainian realities of professional activity.

3.2. Advisability of using the case study method for the preparation of future specialists in documents management and information activities

A specialist in documents management and information activities is a specialist in a wide range of activities, which are based on working with information in all its forms and kinds, requiring developed intellectual abilities, adaptation to rapidly changing circumstances, persistence in stressful situations, teamwork, readiness to decision making and responsibility. Professional work of a document expert requires initiative, self-learning and self-improvement, that is, developed cognitive skills. In connection with the global informatization of all spheres of human life, a specialist in documents management and information activities should be able to work with electronic devices, the Internet, have the skills of Internet heuristics, be able to master and freely operate new ICT. All this requires, on the one hand, stable, and on the other hand, constantly developing skills at analytical work, that is, analytical competence of a specialist in documents management and information activities.

Analytical competence of the future specialist in documents management and information activities is a constituent part of professional competence, which is a dynamic, integrative, constantly developed personal quality reflecting the willingness and ability to apply the acquired knowledge and skills in the process of analytical work, in order to obtain new quality knowledge for operative and effective support of the decision-making process in various spheres of activity.

Thus, "one of the main principles of higher education is the organization of the educational process, which will contribute to the formation of the professional experience structure in the learning environment, in the classroom, even before the actual inclusion of the future specialist in independent practice" (Zhigilev, 2012).

Competent approach to teaching at the university highlights as the key factor of professional qualification that the graduate has the competences necessary to perform professional tasks but not the knowledge of the facts and conclusions made by others. This approach in education makes it possible "to comprehend the possibilities and limitations of teaching methods in a new way. In addition, not only to expand the possibilities of their application, but to make the choice of this or that method more conscious in terms of the expected result" (Zhygilev, 2012).

Active learning methods, in particular the case study method, contribute to the formation and structuring of professional experience, the assimilation of the most effective methods of professional thinking and behavior. Situational tasks have interdisciplinary, meta-subject character and are associated with subject knowledge in the field of philosophy, logic, informatics, modern ICT, analytical and synthetic information processing, rhetoric, etc., as well as with the content of such professionally oriented disciplines as documents management, records keeping, archival studies, business communication, documentation support of management activities, management of information products, etc.

O. Maksimova notes that the case study method makes it possible to integrate other methods of cognition, which become the driving forces of professional development in general, and the formation of skills and analytical skills, in particular. These are such methods as modeling, thought experiment, method of classification, system analysis, game methods, brainstorming, discussion and others (Maksimova, 2013).

Although the predominant function of the case study method is to acquire the skills of the situation analysis, it also includes a number of other important functions. Yu. Surmin singles out the following functions:

training - teaching students the skills of working in changable situations;

learning - mastering knowledge of dynamic stochastic objects;

analysis - acquisition of analytical work skills;

research - acquisition of fundamentally new knowledge of stochastic developing objects;

systematization - systematization of situational knowledge;

forecasting - obtaining information about the future of stochastic systems (systems in which it is impossible to identify interrelated processes, to trace causes and consequences, that is, one can only talk about probable processes, their causes and consequences) (Situational analysis or anatomy of the case study, 2002).

According to the dominant function, the corresponding types of cases are selected: training, learning, analytical, research, systemic, prognostic. P. Sheremeta and L. Kanishchenko offer another typology of cases:

- a case requiring decision;
- a case requiring strategy development;
- descriptive case;
- a case requiring problem identification;
- a case requiring theoretical concepts use (Sheremeta & Kanishchenko, 1999).

The case study method has its own learning characteristics. S. Sikorskaya highlights the following: consolidation of theoretical knowledge in discipline; acquisition of professional skills; increasing cognitive interest in discipline; contribution to the development of research, communication, creative skills (Sikorskaya, 2013).

Yu. Surmin singles out epistemological, praxeological and axiological features of the case study method. In particular, such epistemological features as:

1. Ambiguity of the obtained knowledge - knowledge, that is obtained by the student, is not self-sufficient, but is only one of the situational knowledge variants.

2. A variety of knowledge sources - including the statements of the discussion participants.

3. Creative process of cognition - thanks to the condition of free ideas expression, students and teachers realize their individual creativity.

4. Collective nature of cognitive activity provides for the exchange of opinions, brainstorming, discussion, division into groups and subgroups, game interaction, etc. Collectivity is an important condition for the synergistic effect - multiplying the efforts of participants in the learning process and multiplying the obtained cognitive result.

5. The accelerated process of obtaining knowledge - immersion in the situation allows us to avoid a purely logical model of cognition. Here mechanisms of imaginative, insight cognition take place, thinking from linear is transformed to lateral (Situational analysis or anatomy of the case study method, 2002).

The case study method has certain learning advantages: it facilitates the integration and application of knowledge; it is based on the mutual exchange of experience in the most convenient and economical way; it develops the ability to solve complex but useful examples of problems; sharpens the assessment of priorities and values (Golik, 2016).

The training case has corresponding tasks. For example, V. Yagodnikova singles out the following:

- acquisition of skills to use theoretical material for the analysis of practical problems;
- development of skills to assess the situation, select and organize the search for basic information;
- development of skills to formulate a question and requests;
- development of skills to work out multivariant approaches to the implementation of the action plan;
- formation of skills to make a decision independently in conditions of uncertainty;
- formation of skills and techniques for a comprehensive analysis of the situation, forecasting the options for the situation development;
- formation of constructive criticism skills (Yagodnikova, 2008).

Thus, the work with the case develops in students such skills as:

- analytical: the ability to highlight essential information; to distinguish between essential and nonessential information; to classify; to extract information, analyze and represent it; think clearly and logically;
- practical: practical skills acquisition of theory, methods, principles, etc. applying;
- creative: ability to generate alternative solutions;
- communicative: ability to make conversation, discuss, persuade, use visual material and media, cooperate in groups, defend one's own views, persuade opponents, draw up a short and convincing report;
- social: skills of assessing people's behavior; ability to listen, support an idea or reasonably reject it during a discussion; ability to control oneself and others (Golik, 2016).

In addition, V. Yagodnikova notes the great educational potential of the case study method from the viewpoint of personal qualities development:

- development of diligence;
- development of creativity;
- formation of competitiveness;
- formation of readiness to take responsibility for the results of own analysis of the situation and for the work of the whole group;
- formation of self-confidence;
- formation of the need for achievement;
- development of strong-willed qualities, purposefulness;
- formation of work skills in a group;
- formation of communicative culture skills;
- formation of socially active and vitally competent personality, capable of self-development, self-improvement and self-realization (Yagodnikova, 2008).

Case study method is a specific practical method of organizing the learning process, a method of discussion from the point of view of stimulating and motivating the learning process, and also a method of laboratory-practical control and self-control (Situational analysis or anatomy of the case study method, 2002). Thus, the method of situations analysis provides the formation of readiness components for analytical activity - motivational-value, cognitive, activity-technological and reflexive ones.

Case study method has other features, in particular, technological:

1. The method is a kind of specific analytical technology, that is, includes operations of the research process and analytical procedures.
2. The case study method is a technology of collective learning, the most important component of which is working in groups and subgroups, information exchange.

3. The case study method may be considered as a synergetic technology, the essence of which is to prepare a procedure for immersing a group into a situation, forming the effect of multiplying knowledge, insight, sharing discoveries, etc.

4. The method of situation analysis integrates the technologies of developmental learning, includes procedures for individual, group and collective development, formation of a variety of personal qualities.

5. The case study method is a specific type of project technology.

6. The case study method concentrates in itself significant achievements of "creating success" technology.

7. The technology of the case study method is the process of information field formation, its activation, organization of information communications, collision of positions, replenishment of the field with information and the use of information that accumulates in it.

Yu. Surmin notes that working with the case is a comprehension of a certain situation, which requires the inclusion of various types of analytical activity. For example, such analytical methods as:

- *problem analysis* - provides identification of the problem, formation of the problem field, classification of the problem;

- *system analysis* - determines the need to consider the object from the position of system approach as a specific system that is characterized by structure and functions and, in its turn, is divided into descriptive (the formation of functions based on the existing structure) and constructive (creating a structure based on the functions that are specified) analysis;

- *praxeological analysis* - consideration of activity processes from the point of view of their optimization (analysis of activity ways of optimization, algorithmization and modeling of activity);

- *prognostic analysis* - formation of predictions regarding the future development of the situation in the normative (the future state of the system and the methods for achieving it are determined) and the search options (due to the construction of trend models the future situation is determined) (Surmin, 2012).

The presented analytical methods constitute a certain operational system of work with cases, which corresponds to the stages of analytical activity:

- 1) implementation of problematic structuring;
- 2) definition of characteristics, structure of a problem situation;
- 3) determining the cause of its occurrence;
- 4) diagnostics of the activity content in the situation;
- 5) constructing a system of the situation assessment;
- 6) making forecasts for the development of the situation;
- 7) formation of recommendations;
- 8) development of activities program for solving the situation.

3.3. Case as a technology

Since the case involves several types of analytical activities necessary for the situation comprehension, an important condition for the implementation of the case study method tasks is the high level of the teacher's methodological culture. The use of the case study method is a complex process of professionally-oriented learning, which technology of implementation involves several stages. In addition, the effectiveness of learning process on the basis of the case study method is possible under the following conditions: 1) availability of expedient case of high quality; 2) specific methodology for its use.

The construction of the case, its direct writing in text form, must meet the following requirements: to be a skillfully told real story; to describe a real management problem; to describe a dramatic situation; to include contrast comparisons; to tell about specific employees of specific companies; to refer to recent events; to allow evaluation of the accepted management decisions; to be short (the optimal volume of text should not exceed 8-12 pages, plus 5-10 pages of supplements, and mini-cases can have a volume of 1-2 pages of text); to contain the necessary statistical information.

The case, as a rule, includes the following elements:

- name of the case;
- description of the main idea;
- purpose;
- place in the curriculum (for independent planning of the educational process);
- formulation of the problem and a plan for studying the materials;
- a step-by-step task to perform;
- issues for discussion;
- requirements for registration of the results of work with the case;
- reference materials;
- reference to additional information resources (for independent study).

The size of the case directly depends on its purpose. There are three categories: a mini-case - intended to take part of an academic lesson; a medium-sized case - usually takes one academic lesson; a bulky case - intended for several practical lessons.

The work on the case creation includes the following stages:

1. Formulation of didactic purposes of the case. This stage includes determining the place of the case in the structure of the educational course, identifying its "zones of responsibility" for the knowledge and skills of students.
2. Construction of a program case map consisting of the main theses to be highlighted in the text.
3. Search for an institutional system (firm, organization, department, etc.), which directly relates to the theses of the program map.
4. Collection of information in the institutional system regarding the theses of the program case map.
5. Construction or selection of the situation model reflecting the activities of the institute.
6. Choice of the case style.
7. Writing the text of the case.
8. Diagnostics of the case correctness and effectiveness.
9. Preparation of the case final version.
10. Introduction of the case into educational practice, providing for its use during the classes, as well as its possible publication.

3.4. Sources of cases.

The case is the result of the teacher's work, his intellectual product. Like any other intellectual product, the case has its sources. The basic or primary sources for cases are: life, science, education. Equally important for the creation of cases are secondary sources: belles-lettres and journalistic literature, local sources (when there are representatives of a company whose situation is being discussed, or there are students who use products or services of the company whose situation is analyzed in the group), statistical materials, monographs and scientific articles, Internet resources.

Let us consider the Internet with its resources, as an inexhaustible source of materials for creating cases and a source of ready-made case versions.

The Internet is characterized by large scale, flexibility and efficiency, which are the key features of its attractiveness. It simplifies and facilitates the work of the teacher in preparing cases. Firstly, it is free and open access to information about organizations, their activities, description of situations and solutions that have been applied to overcome the problem. Secondly, it's free access to collections of cases that have proved to be effective. For example, the Ukrainian resource: <http://www.management.com.ua/cases/> - the portal is positioned as a virtual environment for professionals in the management sphere and it is aimed at the exchange of topical methodological information, practical experience, as well as at the discussion of theoretical aspects and problems of applying managerial ideas; the portal is intended for executives of various levels in business, management consultants, university professors and business schools instructors, as well as students of these institutions. The Russian resource: <http://www.casemethod.ru/> - the site specializes in the method of situational analysis, allows teachers to learn methodology of the case study method as the most effective form of education, which has a prospect of domination in the nearest future. The English-language resource for case studies: <http://sciencecases.lib.buffalo.edu/cs/> - the site's activities are aimed at facilitating the development and dissemination of materials and practice of teaching subjects using case study methodology, the site provides access to the case collection.

4. Conclusion

The complexity and ambiguity of human life processes in modern social and cultural conditions, rapid growth of the information space and, as a consequence, the urgency of knowledge reliability problems, force the society to apply analytical activity actively. This, in its turn, generates relevant demands on the labor market and the need for changes in the professional training of specialists in various fields of activity, including future specialists in documents management and information activities.

At present, the most urgent issue is the search for effective teaching methods that would allow to form analytical competence as one of the leading competences of a modern specialist in documents management and information activities.

The analysis of theoretical foundations and practice of preparing students for analytical work allows us to state that the most effective method of forming analytical competence is an interactive method of teaching - the case study based on the achievements of philosophy, logic and other sciences that have generated analytics, theory and practice of analytical activity. Case study method provides comprehensive analysis of the specific situation conditions, identification of cause-effect relationships, modeling of possible options for the further development of events and the search for the most effective problems solutions.

The work of future specialists in documents management and information activities with a case suggests:

- assimilation of theoretical knowledge about analytical activity as a component of the future professional sphere;
- awareness of the need to master different methods of analytics (analysis, synthesis, analogy, comparison, classification, etc.) and the ability to apply them in practice;
- mastering analytical procedures (assessing the information value on certain criteria, identifying cause-effect relationships, modeling, etc.);
- formation of creativity (generation of alternative solutions);

- acquisition of socially significant skills (teamwork, ability to listen, to defend one's own opinion or position of a like-minded person, to master self-control, ability to make decisions and bear responsibility, etc.);

- development of personal abilities, qualities (diligence, criticality and creativity of thinking, responsibility, self-confidence, initiative, competitiveness, etc.).

Systemic use of the case study method in the educational process in the course of different disciplines study allows future experts in documents management and information activities to gain experience in analytical work in the classroom even before the beginning of professional activity, which is a significant indicator of the competitiveness of graduates; skills of self-organization form a strong need for professional development, self-training.

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DEVELOPMENT OF SELF-CONSCIOUSNESS OF STUDENTS-PSYCHOLOGISTS AS A GUARANTEE OF THEIR SUCCESS IN PROFESSIONAL ACTIVITY

Abstract

The urgency of the problem under investigation is determined by the interest of psychological science in the phenomenon of self-consciousness. At the present stage the necessity of reflecting the problem of self-consciousness within the framework of specific professional activity is especially clearly recognized. This problem is of special importance in connection with the fact that modern society needs a special type of personality - a person who not only adapts to the existing reality, but strives for success, showing activity, initiative and responsibility in his professional activities. The article substantiates the urgency of the problem of the development of professional self-consciousness of students-psychologists, the theoretical analysis of the basic approaches to the concept of "professional self-consciousness" is presented. The author presents the results of an experimental study of the level of the formation of professional self-consciousness of students-psychologists studying at the fourth (final) course. The effectiveness of training technology in the development of professional self-consciousness of students-psychologists as a pledge of their success in the future professional activity is considered. The materials of the article can be used by teachers of practical psychology in the process of training psychologists at the university in order to improve the quality of professionalization and the level of professional self-consciousness of students in the learning process.

Keywords

professional self-consciousness, the structure of professional self-awareness,
training of development of professional self-consciousness,
students-psychologists

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Introduction

Modern higher professional education, taking into account the needs and tendencies of the development of society, cannot be limited only to the tasks of transferring professional knowledge, skills and habits. The process of professional self-determination includes the development of self-consciousness of the individual, the formation of a system of value orientations, modeling of the future, the construction of standards in the form of an ideal image of a professional. The definition of one's place in the chosen profession among students is closely intertwined and interrelated with their personal development.

It is in the student's age that the formation of professional self-consciousness is the central new formation of the individual. The wide range of tasks to be solved at this age often leads to the fact that students, when faced with many serious internal conflicts, are immersed in emotional experiences that adversely affect their professional and personal growth.

Most researchers (V.N. Koziev, A.K. Markova, S.V. Vaskovskaya, E.M. Bobrova) note that professional self-awareness, especially at the stage of training specialists, requires special work on development and formation [1]. But often it develops spontaneously, because the main attention in the learning process is drawn to familiarizing with the "technical content" of professional activity, the emergence of the same personality of future professionals is often pushed to the background. Negative tendencies in the formation of a student's professional self-consciousness indicate the need for a special integrated, integrated work to manage this process, providing students with timely assistance in the formation of an adequate "image of the professional "I".

We understand professional self-consciousness as "a reflection of the personal meaning of professional-pedagogical activity, a value attitude towards the profession, towards children, a condition for self-determination and self-realization in the profession" (Kovalev, Myasishchev 2009).

The structure of the image of the "I" in students of different courses has both a different representation and a different nature and content, reflecting the stage of mastering the educational and professional activities, the level of personal and professional development and the features of the learning process. According to the criterion of "integration - differentiation" of the "I" image in the first and second years of training, the variant of a partially integrated "I" is of the type "I am an entrant". One of the defining images of the "I" in the cognitive substructure is the disposition "I am a Person", which reveals the predominance of the tendency of not accepting oneself as a person. The category "Personality" is realized by students in the first and second years of training more often as "almost unattainable peak of growth". And this model of the structure of the image of the "I" is conditioned by the real features of the adaptation period in the development of educational and professional activity and characterizes the insufficiently developed image of the "I", including its structural component such as "I am in the future", "I am a future specialist" (Vasyagina, 2013).

In the third year the trend of increasing the group "I" (variant of the partially integrated "I" as "I am a future psychologist") is emerging from the second year. That is, there is a more pronounced restructuring of the image of the "I" and a tendency is expressed towards its integration, which in its essence represents a real turn in the time space from the past to the future.

In the fourth year the transformation of the "I" system continues and the tendency of integration is further developed. The most presented version is the image of the maximally integrated "I".

In the cognitive substructure of professional self-awareness, the dyad "Psychologist-Client" occupies a central place, consisting of two interrelated dispositions: "I am a Client", "I am a Psychologist". First-year students have the identity of the images "I" and "Client", based on the notion of themselves and the client as not fully formed personalities. By the third course, the attractiveness of the client's image remains low, and the attractiveness of one's own image is growing. From the fourth year there is a renewed increase in the identity of the images of "I" and "Client".

An analysis of the dynamics of the development of cognitive components has revealed a trend in the growth of professional self-awareness which reaches its maximum by the fourth year, which indicates a qualitative change in the level

of professional self-consciousness during this period. The peculiarities of professional self-consciousness on the fourth course allow us to state the situation of contradiction, which manifests itself in a decrease in the level of the personal component in its structure, which allows us to speak about the second critical period in the process of professionalization of practical psychologists.

The third course is the most favorable in the identification and development of the individual style of future activity, the choice of the direction of possible specialization. The adequacy of one's own perception, the integrated image of the "I" create optimal conditions for the formation of professional self-awareness. The phenomena of the psychological barrier in the form of a complexion, the "inaccessibility" of the image of a professional psychologist, which characterize the world perception of the students of the first and second years of education, give way to the centering on one's own image, the identity of the images "I" and "Personality", the maximum development and growth of the attractiveness of the image of the "I" (*Gasanova, Daudova, 2011*).

The essence of the problem of the formation of professional self-consciousness among students-psychologists is that it is the students that are an important period in the life of a person when the preparation for independent life, professional activity is completed, values are formed and the professional training of students-psychologists is improved (*Semyenova, 2014*).

In the structure of professional self-consciousness of students, functional components are singled out - cognitive, emotional, motivationally-targeted, operational and structural - images of "I" (*Vorontsova, 2013*).

The cognitive component is the idea of oneself as an individual; is realized through self-knowledge, knowledge of oneself in the process of human communication with other people in the process of the subject's activity. Turning psychic activity on himself, realizing self-knowledge, a person produces a conscious evaluation of himself and his actions.

The emotional component is manifested through self-understanding. Self-understanding as a process is manifested in self-esteem and acceptance of oneself, in the formation of individual situational images and vague ideas to a more or less holistic concept of self.

Motivational-target component is realized through self-actualization, realization of oneself in the profession. Stable motivational formations are personal values.

The operational component is realized through self-realization. It manifests itself in goal-setting, aspiration for the future, taking responsibility for the realization of one's goals for oneself. Allows you to build a strategy for your own professional growth, to form an active professional position of the individual.

The image of "I-real" is a complex of ideas about myself. It is formed in interaction with the student's ideal of his future. "I-ideal (professional)" - is a set of ideas of the student about himself as the future subject of professional activity in the ideal, the idea of a professional personality standard. "I am the future (developing professional)" is a set of student's ideas about himself in the future, about the prospects of his development on the professional path, the way out to the meaningful self-determination.

According to the ontological concept of A.A. Derkach and O.V. Moskalenko, the development of professional self-consciousness at the stage of training is conditioned by the organization of the educational process in a professional educational institution and the personal characteristics of the student himself (*Semyenova, 2011*).

Thus, the professional self-consciousness of students is a complex, dynamic, personal education that represents the unity and interrelationship of the functional

(cognitive, emotional, motivational, target, operational) and structural (images "I-real", "I-ideal (professional) "I am the future" (developing professional) of components, the development and formation of which is manifested in the gradual recognition of myself as a subject of future professional activity.

Materials and Methods

Proceeding from the structure of professional self-consciousness we defined, we tried to create such a system of work on its development that would correspond to this structure. The experiment was conducted with students during the school year. In the experiment, 60 students enrolled in the fourth year of the Faculty of Psychology took part. This stage of the training was chosen taking into account the fact that students are on the line between educational and professional activities.

The purpose of our research was a theoretical and experimental study of the level of the formation of professional self-consciousness of students-psychologists as a pledge of the success of their professional work and the definition of technologies for the development of professional self-consciousness of students-psychologists.

We assumed that professional self-consciousness is a dynamic three-component structure, and in its development there passes a number of stages, conditioned both by the individual characteristics of the students and by the course of their education. As a private hypothesis, it was suggested that the formation of professional self-consciousness of students-psychologists in the process of education in the university will be most successful, provided timely diagnostic research and special purposeful work that contributes to the formation of professional self-consciousness (*Kulikova, 2017*).

In the course of the experimental work the following tasks were solved: 1) a description of the essence, features and stages of the formation of professional self-consciousness of students in the learning process in the university; 2) determination of the basic structural components of professional self-consciousness of students-psychologists; 3) selection of diagnostic material for the study of professional self-consciousness of students-psychologists; 4) development of a training program for the development of professional self-consciousness of students-psychologists in the process of studying at a university.

To test the hypothesis, a set of theoretical and empirical research methods was used. On the basis of the structural and functional components of the formation of professional self-consciousness, we have developed a diagnostic program. The diagnostic program is aimed at studying the level of the formation of professional self-consciousness of students-psychologists in the process of studying at the university and includes five psychological methods.

The content of the diagnostic program is the study of the level of the formation of professional self-consciousness of psychological students

Components	Methods
Cognitive	Diagnosis of self-actualization of an individual (A.V. Lazukin in the adaptation of N.F. Kalina)
Emotional	Diagnosis of the level of empathy (I.M. Yusupov)
	The method of diagnosing socio-psychological adaptation of K. Rogers and R. Diamond
Motivational-targeted	The test of meaningful orientations (D.A. Leontiev)
	Questionnaire "The level of subjective control" by J. Rotter (adapted by E.F. Bazhin, S.A. Golykina, A. Etkind)

The purpose of the diagnostic program is to determine the level of the formation of structural and functional components (cognitive, emotional, motivationally-purpose) for students-psychologists, necessary for the successful development of professional self-consciousness. When selecting methods we tried to take into account the positive assessment of the use and reliability of the method according to a number of foreign and Russian researchers; availability of techniques for participants; the possibility of qualitative and quantitative analysis of the results.

Results

In the process of ascertaining the stage of the experiment, the level of the formation of professional self-consciousness of fourth-year students was analyzed. The developed diagnostic program allowed to obtain results for each component of the proposed structure of professional self-awareness.

Discussion of the results of the experiment we will begin with a review of data characterizing the cognitive component of professional self-awareness. For the study of the cognitive component, we used the method of self-actualization of an individual (A.V. Lazukin in the adaptation of N.F. Kalina). Analyzing the obtained data on the level of formation of the cognitive component, it can be noted that on the scales of values and self-understanding, average indicators (78% and 70%, respectively) were revealed. This indicates that respondents in general understand and share the values of a self-actualizing person (kindness, truth, beauty, order, justice, self-sufficiency, etc.), they express such qualities as the desire for harmony and healthy relationships. They are not inclined to substitute their own tastes and assessments with external social standards. High scores on the scale of flexibility in communication (71%) indicate the ability of respondents to adequately express themselves in communication, the ability to self-disclosure. There is an orientation to personal communication, avoiding lies and deceit in communicating with others.

Two methods were used to study the emotional component. Results of the technique "Diagnosis of the level of empathy". Yusupova show that respondents have a very high level of empathy (62%). This indicates a developed ability of empathy and a subtle reaction to the feelings and mood of the interlocutor. A very high level of empathy also speaks about the vulnerability of respondents, increased sensitivity and the need for support from outside. Often people with very high levels of empathy are prone to nervous breakdowns.

Of the total number of respondents with a high level of empathy, 27% of the subjects were identified. Such people are sensitive to the problems of others and often tend to forgive others a lot. They are able to show emotional responsiveness, sociability, can easily establish contacts with strangers. They expressed their desire to avoid conflicts and readiness to compromise, even to the detriment of their own interests. They constantly feel the need for social approval of actions and the desire to work in a team. The average level of empathy is revealed in 9% of respondents, which indicates a tendency to rationally evaluate others by their actions, and to a lesser extent trust their impressions. Their emotional manifestations are in most cases under control, and full perception of people is hampered by a slight stiffness of feelings.

According to the results of diagnosing the social and psychological adaptation of K. Rogers and R. Diamond, the respondents had average indicators on the adaptability scale (71%), which indicates a normal ability to adapt and change the ways of thinking and intellectual activity in accordance with the tasks set. On a scale of emotional comfort, high rates were found in 23% of subjects, and average indices - in 64% of respondents, which reflects the predominance of positive emotions and self-

confidence in life. The scales "disadaptivity" and "emotional discomfort" do not have a vivid expression and are at the normal level.

Two methods were used to study the motivational-target component: a test of meaning-oriented orientations. Leontief and the questionnaire "The level of subjective control" by J. Rotter, adapted by E.F. Bazhinym, S.A. Golykina, A.M. Etkind.

The analysis of the results of the sense-of-life orientations test shows that respondents have a high level of emotional saturation of life (70%). Respondents lead a rich, interesting and meaningful life. On the scale of satisfaction with self-realization, subjects also show a high level (80%). This suggests that respondents adequately perceive the productivity of their lives, give a correct assessment of their past lives and are ready to realize themselves in the future. Thus, respondents have high satisfaction with self-realization, however, some students have problems with emotional saturation of life.

According to the results of the questionnaire of the level of subjective control, none of the scales is of high severity. Moreover, the internality scale in the field of failures is low (40%). This reflects an undeveloped sense of subjective control in relation to negative situations and events, which manifests itself in a tendency to blame others for various troubles, failures and sufferings. Also, there were revealed reduced indices on the scale of internality in the field of production relations (36%). This indicates that respondents consider their actions not to be important, both within the framework of the organization of production activities, and within the framework of relations within the collective. Respondents are inclined to attribute the greatest importance to external circumstances, comrades in work, leadership, luck or bad luck.

Discussions

The data obtained in the course of the study make it possible to say that the students of the fourth (final) course in the concept of professional activity are increasingly becoming motivated and valuable characteristics. In the professional image of themselves, the students of the 4th year have significant characteristics. They are characterized by a new understanding of their communicative abilities in relation to the profession, i.e. sociability, benevolent attitude to others is considered not as a separate personal quality, but in interrelation with practical activities. Based on the results of the methods, we see that the students of the final year as a whole assess their professional abilities highly, but their real professional achievements are low.

Realizing that the success of the professional work of a psychologist, as in no other profession, is determined primarily by his personal characteristics and the level of the formation of professional self-consciousness, we consider it necessary to organize a special purposeful work to correct and develop the professional representations of students.

In order to form psychological readiness for professional work and the necessary competences for effective solution of future professional tasks, as well as personal self-development and self-improvement, a special training program was developed (Kulikova, 2016).

The basis of the training is the idea of integrity, unity of professional and personal development of a person. The resulting new emotionally charged information about themselves and others encouraged students to rethink the existing components of the I-concept and helped to form an adequate image of themselves. When organizing the classes, we took into account the youth age of the respondents who already have a certain set of knowledge, ideas, attitudes, values, the attitude to the world,

people, tasks, to oneself and life in general, own certain ways of activity. This led to the choice of the personality-activity, humanistic approach to the formation of the personality of the student as a whole and the development of his professional self-awareness, in particular. We did not set ourselves the goal of achieving global transformations of the individual in a short time. For us it was important to gradually realize the students the possibility and necessity of self-knowledge, self-development and self-improvement; strengthening the need to build a positive professional self-concept.

When organizing training sessions with students, the following principles should be observed: the principle of activity, the principle of open feedback, the principle of "here and now," the principle of trust in communication. Compliance with the above principles will allow successfully to solve the organizational tasks of the training.

The training program includes three conceptual blocks. The first block - psychodiagnostic - involves identifying the characteristics of students' professional representations, the patterns of awareness of their ideas about the integrity of the life path and the possible professional future. To achieve this goal, students are invited to answer a series of questions with a subsequent group discussion of the answers. The second block - the motivational one - is aimed at creating a motivating basis for the subject's transition from the everyday, pragmatic to the cognitive attitude to the professional self-concept, to the formation of conscious self-regulation of one's own vital activity. The third block - psychocorrectional - is focused on teaching productive forms of organization of students' life time, actualization of mechanisms of self-knowledge and self-regulation. As a result, at this stage there is an independent nomination by students of goals related to educational and professional interaction, communication; goals of self-regulation of personal and professional development; development goals of an adequate professional self-concept (*Markova, 1996*).

Conclusion

As a result of the study, it was determined that the period of university training is a productive stage in the development of professional self-consciousness of future psychologists, on the level of which the effectiveness of professional activity depends on the successful completion of training. Professional self-consciousness is an evolving system, and the formation and development of its components is influenced by professional and educational activities in the course of psychological support, which provides the necessary conditions for the development of the personality of a specialist (*Mironova, 1999*).

The obtained results of the conducted research can be reduced to the following conclusions.

1. As a result of the theoretical analysis of the basic psychological approaches to the problem of the formation of professional self-consciousness, it can be considered that researchers attribute this construct to the key mechanisms of professional formation and development. This mechanism is a specific, selective, differentiating and integrating activity of consciousness, acting as a sublevel of a common self-consciousness and manifesting itself as a subject of professional activity.

2. Professional self-awareness, having much in common with the self-consciousness of the individual (structure, functions, mechanisms of development and functioning), has its own specificity: regulates professional behavior and the relations of the subject of professional activity; has a professionally active content of I-images.

3. Formation of professional self-consciousness begins with professional training in the university, but this process has its own characteristics, which manifest themselves in different ways at different stages of training (*Semyenova, 2014*).

4. In the early stages of training, psychology students already have a professional self-awareness, which manifests itself in the fact of realizing their professional abilities, potentials and prospects. At the same time, there is a tendency to overestimate professional self-esteem and the level of claims with a "blurred" view of the specifics of professional activity.

5. In the second stage of vocational training, there is a significant correction of ideas about professional activity, which leads to a change in the professional image of oneself and the correction of professional self-esteem. These changes occur with the experience of emotional discomfort.

6. In the subsequent stage of forming professional self-awareness, there is a deepening of the notion of professional activity, an adequate system of criteria for professionalism is formed, self-esteem is being raised and the professional image of self is adequately constructed with the isolation of its professionally important qualities. But even in this case the peculiarities of the formation of professional self-consciousness are manifested. So, at the last (final) course of study, there is a repeated decrease in professional self-esteem and in the students' perceptions about themselves, they primarily distinguish business, rather than professionally-important qualities.

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DEVELOPMENT OF A FUNCTIONAL MODEL OF THE INFORMATION SYSTEM OF DETERMINATION OF EMOTIONAL AND COGNITIVE DISORDERS IN PATIENTS WITH DISCIRCULAR ENCEPHALOPATHY

Abstract

The article presents information technology for the detection of emotional and cognitive disorders, which provides a detailed display of the process of their detection, by designing IDEF0 diagrams. The results reflect a structured description of the diagnostic process, which allows identifying emotional and cognitive disorders in patients with discirculatory encephalopathy. This information technology can be used by psychiatrists, psychotherapists and medical psychologists.

Keywords

Information technology, emotional and cognitive disorders, IDEF0 diagrams

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Introduction.

The vascular diseases of the brain at present are one of the main medical problems in most industrialized countries of the world. In recent years, a steady tendency towards the growth of dyscirculatory encephalopathy (DE) in the structure of cerebrovascular pathology has been observed in Ukraine. In today's conditions, the question of studying the mechanisms of formation and specificity of clinical manifestations of DE in the able-bodied population are relevant (*Bachinskaya, 2010; Mischenko, 2010*).

The problem of development of DE is one of the leading places in the domestic neurology and psychiatry, in connection with its high prevalence and predominant lesion at the initial stage of the disease of working-age people, as well as severe medical and social consequences (*Kozhina, 2012; Vysotskaya, Kozhina, Rysovanaya, Chaika, 2013*). In patients with initial stages of DE, cognitive and emotional disorders are minimal, so their diagnosis is a rather complicated task. The presence of a large number of interrelated indicators characterizing psychological disorders, the analysis of which requires the use of mathematical methods and software, determined the need for the development and implementation of information technology (IT) detection of cognitive and emotional disorders in patients with DE (*Vysotskaya, Panferova, Kozyuk, Dobrodzhennaya, 2016*).

Literature review and problem statement.

Psychiatry uses a number of information technologies and systems. The computer system "DX-NT", developed by firm DX-Complex (*Yuryeva, Nosov, 2006*), is based on the technology of topographic mapping of biorhythms of the human brain by determining the severity of nerve and psychological diseases. She puts emphasis on the visual determination of the severity of nervous and psychological diseases, but does not solve the problems of assessing the severity of cognitive disorders in patients with DE.

The TESTER information system is designed to detect cognitive impairments (*Kulik, Nikonets, Tkachenko, Lukyanov 2011*), but its database does not include the results of laboratory tests, which affects the accuracy of diagnostic DE.

The system of design and automation of tests "PRACTIC", which has a modular structure and includes 3 modules (module for creating tests, module interpreter, module UserInfo), allows you to conduct psycho-diagnostic examinations. The structure of the system allows to ensure accumulation of the general normative base of tests, however, high and stringent requirements to the technical means and its software is a significant disadvantage (*Alexandrovsky, Shchukin, 1991*). One of the subsystems of this system is "TESTAN", which allows to automate the multifactor arbitrary question-related test, as well as develop new tests based on the psychometric analysis of points of available techniques. It consists of several independent modules, the main ones of which are intended for input into the information system of the completed questioning test methods, automated data collection, processing and automated interpretation. However, this system is quite complex in use and more focused on scientific, but not practical work (*Alexandrovsky, Shchukin, 1991*).

The computer system of psychodiagnosis SMOL-Expert (*Blakeer, 2002*) is based on the SMOL test. It provides testing, processing results, maintaining a database, interpreting the results of the survey. SMOL is a shortened version of the well-known MMPI test used for psychological counseling. The disadvantages of this program are: the lack of the ability to detect cognitive impairments and the prognosis of the further development of emotional disorders, as well as the generation of a large number (more than 400,000) of output options.

The well-known is the united software complex, which includes the expert system "Longitude" and the experimental-diagnostic complex (EDC), which are interconnected by a multitude of common components, but are intended for various purposes. An expert system of individual support for the development of children "Longitude" is used to determine the level of psychomotor development and control of its dynamics in children from two months to seven years. This software is a supplement to the usual methods of examining a child's specialist. However, this system allows you to work only with children. An extended version of this system, Longitude +, also includes applied techniques for psychological work with adolescents and adults. EDC is a set of diagnostic, research and teaching techniques used in the diagnosis of psycho-emotional disorders designed to collect and process experimental data, adapt and standardize psychodiagnostic techniques that do not have modern adapted versions, as well as for applied use, including counseling and conducting research (*Miroshnikov, 2010*). The presented program complex does not allow to take into account the factor of the presence of cerebrovascular pathology of chronic form.

The automated information system "The map of the patient who appealed for psychiatric help" is intended to automate the process of conducting an outpatient card. This information system helps doctors-psychiatrists (therapists-psychotherapists), especially the beginners, in making the correct diagnosis (*Altamirov, 2016*). However, this system is intended to support decision-making by the doctor of the psychiatric and narcological department and does not take into account the possibility of the presence of neurological diseases in patients.

Aimedika's Drug Acceptance Assistance System forms the list of the most likely diseases, based on more than 22 million scientific articles on medical topics and clinical practice results (*Aimedika. 2009*). Computer system (*Tonkikh, 2009*) provides solution to the problem of rationalization of the definition of gravity of the course of cerebrovascular diseases with the allocation of clinical groups. However, these systems do not solve the problem of detecting and predicting cognitive and emotional disorders in patients with dyscirculatory encephalopathy.

Hardware-software psychodiagnostic complex "Multispihometer" (*Alexandrovsky, Shchukin, 1991*) is an integrated computerized workplace of a psychiatrist (physician-therapist), which includes hardware, specialized software and methodological support. The purpose of this complex is the assessment of the level of development of the important qualities of the patient, psychological and psychophysiological properties, but the lack of an integral criterion of compliance, which would combine the results of test methods available in the library is a significant disadvantage of the complex (*Alexandrovsky, Shchukin, 1991*).

In the United States, a number of expert systems have been developed to detect and assess various psychological and psycho-neurological disorders that impede successful education, work and self-fulfillment, for example, the DYSLEXPART system (*Kan, Kuznetsova, Miraculous, 2010; Blonk, Bercken, De Bruyn, 1996*). One of the latest developments in this type of system is the FEAREDEX (Fear Diagnostic Expert System) system that diagnoses phobia. The system interface is intended for contact with patients, who display drawings and animation materials. According to the authors, when comparing the findings formed by FEAREDEX and consisting of psychiatrists, there are differences for unexplained cases; in the case of more pronounced phobias, the differences disappear (*Kan, Kuznetsova, Miraculous, 2010; Feardex, 2012*). However, the characteristic feature of these systems is a narrow specialization in a certain area of psychodiagnostics. It does not allow for a general diagnosis of emotional disorders, and in complex cases, additional examination or interaction with a specialist may be proposed, which increases the time for the diagnosis.

As the analysis of literature shows, some of the world's expert systems in the field of psychodiagnosis are designed to make a diagnosis by a specialist, but the very principle of working with the system - questioning the doctor and passing the system judgments on the case of fixed indicators - remains unchanged. An example of this is the interface of the professional expert system "Psychodiagnostics" posted on the site of the Australian recruiting company Psych Press. Designed for certified professionals, the system allows you to determine the degree of severity or the absence of signs of mental disorders and personal violations of the American classification of mental disorders DSM-IV. Descriptions of the techniques of psychodiagnosis are presented in the comments, which makes it possible to use the system as a reference and library (Kan, Kuznetsova, Miraculous, 2010). However, this system is quite complicated and requires additional training and certain skills in working with information systems in the field of psychodiagnosis.

The program complex "NeuroPro 0.25" (Tsaregorodtsev, 1999) discovers a different level of study of circulatory encephalopathy. The artificial neural network, on the basis of which the presented complex operates, is a computer model of multivariate analysis composed of neurons that function as nonlinear summators and organized in a layered manner using weight connecting synapses, which to some extent imitates biological neural networks. Given the important role in predicting the efficacy of pharmacotherapy for patients with dyscirculatory encephalopathy, against the backdrop of a large number of clinical parameters that are in a nonlinear relationship, the use of neural network systems is justified and promising, however, the diagnosis of this disease with this complex is complicated.

The analysis of references has shown that to date, known medical and psychological information systems and technologies that use a different mathematical device, allow to automate the process of detecting DE or cognitive and emotional disorders in various other diseases. However, there is no specialized information system based on information technology to determine the risk of development of cognitive and emotional disorders in patients with DE.

The aim and tasks of the study.

Therefore, the purpose of the work is to develop a functional model for the information system for identifying emotional and cognitive disorders in patients with DE in order to improve the quality of diagnosis and reduce the time spent for this.

To develop a functional model, IDEF0 charts were constructed that contribute to structured description of automated processes. Execution of IDEF0 rules requires sufficient rigor and accuracy, without at the same time imposing excessive restrictions on the actions of a physician or psychologist.

Results of studies.

At the initial stage of creating the IDEF0 diagram, we describe all its elements: input, output, control, and mechanisms of influence. Figure 1 shows the structure of the information process for identifying emotional and cognitive disorders in patients with DE.

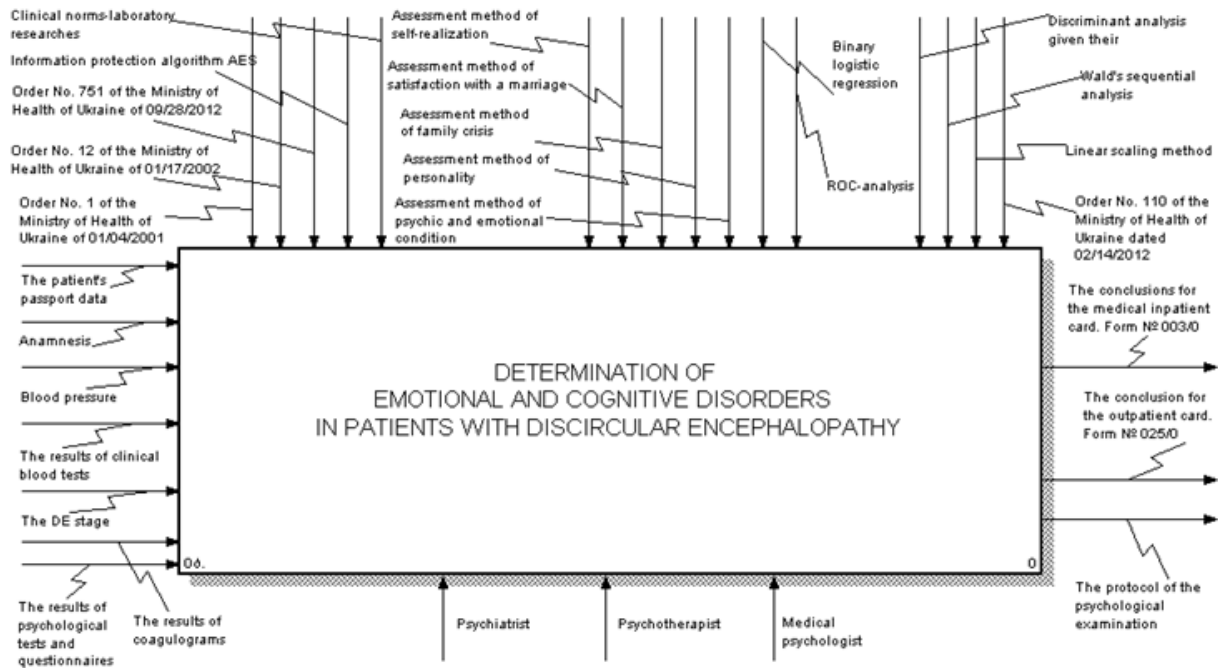


FIGURE 1. CONTEXT DIAGRAM OF THE INFORMATION PROCESS FOR IDENTIFYING EMOTIONAL AND COGNITIVE DISORDERS IN PATIENTS WITH DE

To manage this business process, you need: the laws of Ukraine (Order No. 110 of the Ministry of Health of Ukraine dated 02/14/2012 "On Approval of Forms of Primary Accounting Documents and Instructions for their Filing Used in Health Care Facilities, Regardless of Form of Ownership and Subordination", Order No. 12 of the Ministry of Health of Ukraine of 01/17/2002 "On Approval of the Instruction on the Obligatory Preliminary and Periodic Psychiatric Inspections", Order No. 1 of the Ministry of Health of Ukraine of 01/04/2001 "On Approval of Forms of Medical Registration Documents Used in the Laboratory Ores of medical and prophylactic institutions", Order No. 751 of the Ministry of Health of Ukraine of 09/28/2012" On the Establishment and Implementation of Medical and Technological Documents for the Standardization of Medical Aid in the System of the Ministry of Health of Ukraine"), information protection algorithm AES, clinical norms-laboratory researches, methods of psychological research (assessment of personality, self-realization, satisfaction with a marriage, family crisis, psychic and emotional condition), methods of mathematical statistics (binary logistic regression, linear scaling method, discriminant analysis given their, Wald's sequential analysis, ROC-analysis).

The patient's passport data, anamnesis, blood pressure, the results of clinical blood tests and coagulograms, the DE stage, the results of psychological tests and questionnaires (indicators of depression and anxiety, physical functioning, emotional functioning, psychological health, trust, diplomacy, adaptability, psychosocial stress indicator, intro-extroversion, internality, clearness, authority, satisfaction with lack of self-esteem, etc.).

The mechanism of influence for this information technology was a psychiatrist, a psychotherapist, a medical psychologist.

At the output of the presented process, we obtain the conclusions for the medical inpatient card of the patient, the conclusion for the outpatient card and the protocol of the psychological examination.

For a more detailed description of the process of identifying emotional and cognitive disorders in patients with DE, a first-level decomposition diagram was presented, which is presented in Figure 2.

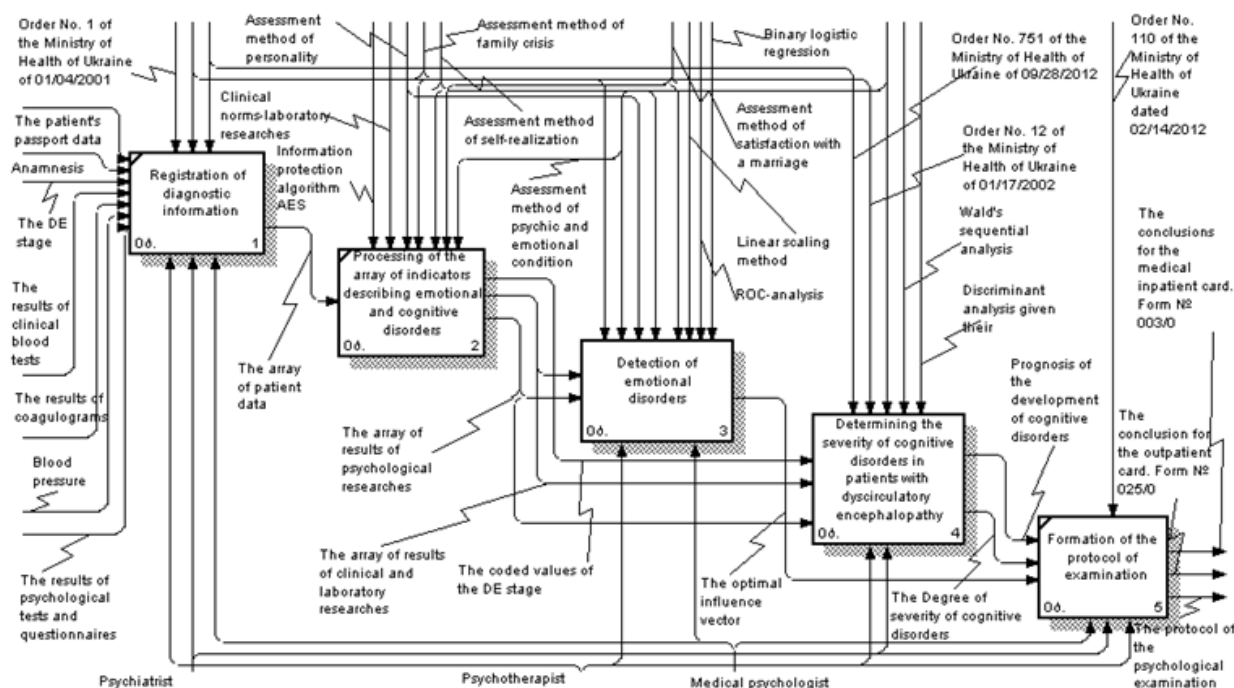


FIGURE 2. DECOMPOSITION OF THE 1ST LEVEL INFORMATION PROCESS FOR THE DETECTION OF EMOTIONAL AND COGNITIVE DISORDERS IN PATIENTS WITH DE

Detection of emotional and cognitive disorders in patients with DE includes five important business-processes: "Registration of diagnostic information", "Processing of the array of indicators describing emotional and cognitive disorders", "Detection of emotional disorders", "Determining the severity of cognitive disorders in patients with dyscirculatory encephalopathy", "Formation of the protocol of examination".

At the initial stage of the provision of medical care, the passport data of a person, the history of the disease and hemodynamic parameters, the results of the clinical analysis of the blood and the coagulogram, the data of questionnaires of the psychological tests and questionnaires, the DE stage are submitted.

According to the received information, the conclusion is drawn about the presence and severity of emotional and cognitive disorders in patients with DE.

The result of the work "Registration of diagnostic information" is the information about the state of the patient, which comes to the entrance of the work "Processing of an array of indicators describing emotional and cognitive disorders", which deals with the processing and encoding of psychological data of the patient, as well as encoding the values of the DE stage. Selected data is presented as quantitative, categorical and ordinal indicators. During the determination of the severity of cognitive disorders, coding was used for 4 diagnostic parameters: the DE stage (encoding occurred in relation to the three stages of the disease), the level of development of emotional disorders (these indices, which to varying degrees corresponded to the third, fourth, fifth, and sixth levels of emotional functioning, adjusted to a 3-dimensional vector), systolic and diastolic pressure (coding takes place taking into account the presence and magnitude of the pathological sign). The beginning of the work "Detection

of emotional disorders" is an array of results of psychological research and the results of clinical and laboratory research, obtained from previous work, and the result - is a method of identifying emotional disorders and determining the vector of optimal impact on the state of the patient with DE. At the entrance to the work "Determination of the severity of cognitive disorders in patients with DE" data from the work "Processing the array of indicators describing emotional and cognitive disorders", is an array of results of psychological and clinical and laboratory studies and coded values of the DE stage, and at the exit we get the degree of severity cognitive disorders and a forecast of its further development. At the last stage of the "Formation of the protocol of examination", in accordance with the standards of medical care, the laws of Ukraine and registration medical forms, conclusions are drawn for the patient's medical card (form number 003/0) or an outpatient card (form number 025/0), as well as extracts from the protocol of psychological examinations.

Thus, the process of "Detection of emotional disorders", indicated in the first-level diagram, is divided into six functions in the second-level diagram. The second-level decomposition diagram is shown in Figure 3.

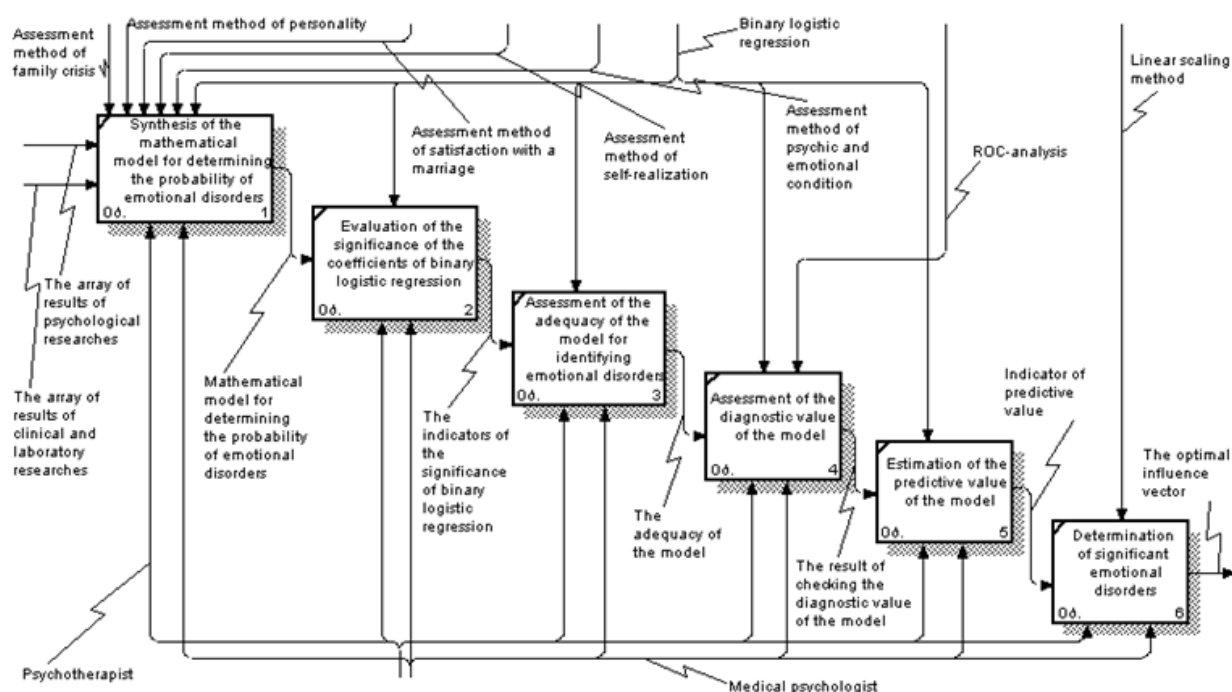


FIGURE 3. DECOMPOSITION OF THE 2ND LEVEL INFORMATION PROCESS FOR THE DETECTION OF EMOTIONAL AND COGNITIVE DISORDERS IN PATIENTS WITH DE (DECOMPOSITION OF THE PROCESS OF "DETECTION OF EMOTIONAL DISORDERS")

This process includes the following six works: "Synthesis of the mathematical model for determining the probability of emotional disorders", "Evaluation of the significance of the coefficients of binary logistic regression", "Assessment of the adequacy of the model for identifying emotional disorders", "Assessment of the diagnostic value of the model", "Estimation of the predictive value of the model", "Determination of significant emotional disorders". The listed works are related to each other.

The result of the first work "Synthesis of the mathematical model for determining the probability of emotional disorders" is the mathematical model for determining the probability of emotional disturbances, which is the input information for the work

"Assessment of the significance of the coefficients of binary logistic regression". At the output of the second work we get indicators of the significance of binary logistic regression. Then the data goes to the entrance "Assessment of the adequacy of the model for determining emotional disorders" and at the exit we get the indicators of adequacy of the model. At the output of the fourth work, the result of checking the diagnostic value of the model, which comes to the fifth paper "Estimation of the predictive value of the model" is formed. The output of the fifth work is to determine the indicator of the predictive value of the constructed model, which is aimed at the input of the latest work, "Definition of important for the development of emotional disorders of characteristics." At the end of the last work, we get the signs that most affect the emotional disorders of each patient with DE.

The second-level decomposition diagram presented in Figure 4 is a decomposition of the process of "Determining the severity of cognitive disorders in patients with dyscirculatory encephalopathy".

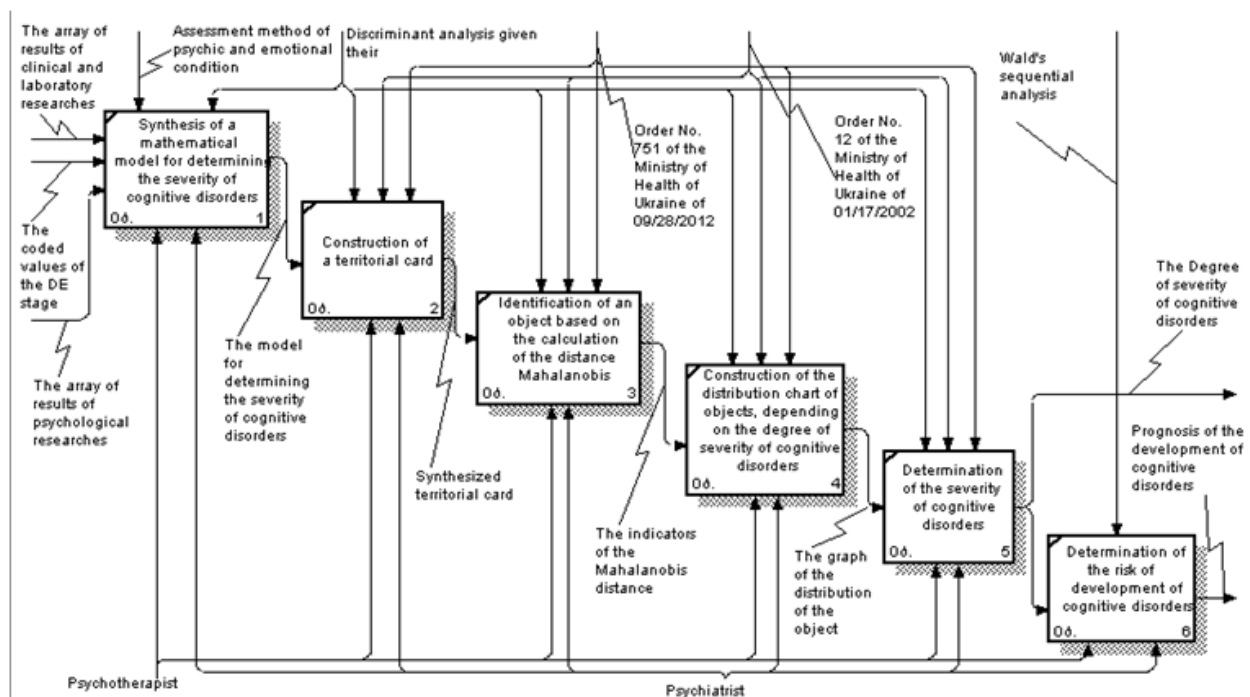


FIGURE 4. DECOMPOSITION OF THE 2ND LEVEL INFORMATION PROCESS FOR THE DETECTION OF EMOTIONAL AND COGNITIVE DISORDERS IN PATIENTS WITH DE (DECOMPOSITION OF THE PROCESS "DETERMINATION OF THE SEVERITY OF COGNITIVE DISORDERS IN PATIENTS WITH DYSIRCULATORY ENCEPHALOPATHY")

This process includes the following six works: "Synthesis of a mathematical model for determining the severity of cognitive disorders", "Construction of a territorial card", "Identification of an object based on the calculation of the distance Mahalanobis", "Construction of the distribution chart of objects, depending on the degree of severity of cognitive disorders", "Determination of the severity of cognitive disorders", "Determination of the risk of development of cognitive disorders". All these stages are interconnected.

The result of the first work "Synthesis of the mathematical model for determining the severity of cognitive disorders" is a synthesized mathematical model for determining the severity of cognitive disorders, which forms the territorial map that arrives at the beginning of the work "Identification of the object on the basis of distance

calculation" in the next paper "Construction of a territorial map" Mahalanobis. " At the output of the third work, we obtain the distance from Mahalanobis. The received data arrives at the beginning of the work "Construction of the schedule of objects distribution, depending on the severity of cognitive disorders", which creates a schedule for the distribution of objects. In the next paper "Determination of the severity of cognitive disorders" we get the degree of severity of cognitive disorders, after which the obtained data are included in the last work "Determine the risk of development of cognitive disorders", which results in a prognosis of the risk of development of cognitive disorders.

Thus, the process "Detection of emotional and cognitive disorders in patients with dyscirculatory encephalopathy", indicated in the first level of the decomposition of the chart, is detailed using twelve works at the second level of the decomposition of the chart.

The information technology presented in the article is the basis for the development of the information system "KognitiveDE", which is implemented using the object-oriented Java programming language using the MySQL database management system.

With the help of the developed technology, people were investigated with a probability of emotional and cognitive disorders, experiencing a crisis in family relationships and having a diagnosis of DE.

Here is an example. Patient M., 54 years old, appealed with complaints of medical genesis, namely, complaints of general weakness, headache, dizziness, memory loss, periodic sleep disturbance, choking on walking, fluctuations in blood pressure. This patient was previously diagnosed with DE stage II.

The patient was interviewed by a psychotherapist and passed several tests. The psychological study revealed the following values of indicators: trust-suspiciousness ($A_1 = 8$), straightforwardness-diplomacy ($A_2 = 9$), fibrinogen level ($A_3 = 7.7$), anxiety ($A_4 = 9$), depression ($A_5 = 8$), psychosocial stress index ($A_6 = 2.3$), blood glucose ($A_7 = 8,2$). The probability of having an emotional disorder was $P = 0.97$. Subsequently, using the method of identifying emotional disorders, it was discovered that most of the patient's unstable psycho-emotional state is influenced by indicators of trust-suspiciousness and psychosocial stress indicators.

To confirm the psycho-emotional disorder, the patient was subjected to an additional examination using methods and techniques: M. Luscher (choice of color); T. A. Nemchyna (diagnosis of nervous-psychic stress) - 67 points; V.N. Rusalov (definition of temperament) [19]. Also, to assess the severity of depression, Beck questionnaire was used for 18 points, and for Spielberg-Khanin's anxiety rating of 45 points (*Moskovko, Tsybul'skaya, Kostyuchenko, 2014*). The severity of asthenic disorders was evaluated on the basis of the questionnaire MFI-20 - the sum of points on five subscales is equal to 63 (*Tishchinskaya, 2014*). In the study of emotions, vegetative reactions are of great significance, which is why the skin-galvanic reaction (SHGR) was investigated.

An additional psychodiagnostic survey confirmed the presence of the patient's exact psycho-emotional disorders that were detected using the technology presented.

Further, taking into account: the stage DE ($X_1 = 2$); the results of psychological studies of depression ($X_2 = 4$), anxiety ($X_3 = 4$), physical functioning ($X_4 = 26$), mental health ($X_6 = 19$); risk of emotional disorders ($X_5 = 1.84$); indicators of systolic and diastolic pressure ($X_7 = 1$ and $X_8 = 1$, respectively); The results of clinical and laboratory studies of erythrocyte sedimentation rate ($X_9 = 1$), erythrocyte count ($X_{10} = 1$), prothrombin index ($X_{11} = 2$), discriminant functions were calculated: $DF_1(X) = 4,243$, $DF_2(X) = -1,266$. The patient on the territorial map takes place in a group with a moderate degree of cognitive disorders among patients with DE,

which additionally was confirmed by the MMSE scale. To predict the development of cognitive disorders, the diagnostic factor of the successive Wald analysis has established $DK = 13.06$, which suggests an unfavorable outlook for the disease.

In order to confirm the presence of cognitive disorders in this patient, neuropsychological methods, representing special tests and tasks for the purpose of identifying memory disorders, attention, intelligence, etc. were additionally applied. The Montreal Cognitive Test (MCA) - 24 points was used, the drawing of the clock - 6 points, the technique of "Minikog" - the difficulties were encountered in drawing the clock and repeating the words (*Golovacheva, Zakharov, 2015; Lobzin, Emelin, Vorobev, Lupanov, 2014*). Also, an instrumental examination was performed using a computer tomograph - subcortical leukoarrhea. An additional survey confirmed the presence of moderate cognitive disorders.

Conclusions

Thus, the IDEF0 designed diagrams are one of the initial stages of the process of developing an information system for detecting emotional and cognitive disorders. The functional model "Detection of Emotional and Cognitive Disorders in Patients with Dyscirculatory Encephalopathy" presented in the article describes the work of the information system "KognitivDE", which promotes the improvement of the accuracy of emotional and cognitive disorders in patients with DE, reducing the time spent and reducing the cost of the survey.

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GENRE PECULIARITY OF THE FANTASTIC NOVEL BY ELENA KRASNOSELSKAYA "DIGITAL RAINS OF TIME"

Abstract

Fantasy, "fantastic" is one of the oldest and permanent components in world culture. Fantastic genre today has become an extraordinary phenomenon of public life: the demand for fantastic works is increasing every year, the reader strives every time to gain new impressions, and the writer tries to "see" something still unprecedented, to "dream" about extraordinary. Fantastic fiction does not just grab its readers, but it influences the formation of their philosophical, political, social, psychological principles and guidelines. In addition, fantastic fiction created a certain subculture - "fandom", which also has a unique impact on society as a whole (Sikovskaya, 2015).

Keywords

fantastic fiction, genre, fantastic fiction as a concept, poetry of a novel,
science fiction, genre hybridization, genre universality

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Every national literature has gone its own way of developing a fantastic genre and has features and patterns that are inherent and indicative only for it. According to scientists, the insufficient interest of modern literary critics to the problems of Ukrainian fantastic fiction, its theoretical and practical aspects, periods of recovery or decline in specific decades of the XX-XXI centuries is explained by socio-historical and cultural conditions in which Ukraine has been for centuries. Fantastic fiction was considered irrelevant for a long time, it was considered mainly as light, entertaining reading, unable to model deep and serious problems, images, concepts. With the attainment of independence, the process of creating national fantastic fiction, as well as its scientific interpretation, revived in Ukraine.

The end of the XX and the beginning of the XXI century is a bright period of different genre structures functioning in modern Ukrainian literary and fantastic fiction. At this time, the works of famous Ukrainian writers appear (A. Berdnik, V. Berezhnoi, M. Rudenko, Valery Shevchuk, Yu. Shcherbak, Marina and Sergey Dyachenko, N. Scherba and others). It is during this period that interest in such types of fantastic fiction as fantasy, science fiction, utopia, anti-utopia and the like grows. You can rightfully include among such novels with a "multi-genre structure" a new

fantastic novel by Elena Krasnoselskaya "Digital rains of time", published last year and sounded loudly at literary forums in Lviv and Zaporozhye.

Elena Krasnoselskaya (Zaporozhye, 1970), a mechanical engineer by profession and a creative nature "in life" with "a unique fantastic vision", is a member of the Zaporozhye Literary Association, the author of a number of fantastic fiction works: "Singing Stones", "Bitterness of Loss", "Trace", "Lokhmokoty", "A Trap for Mary", "Catch up the past", "This Amazing Dubhe", etc. Her works were published in magazines: "Technology of Youth", "The Universe. Space. Time"; in anthologies: "Khortytsya", "True Fantastic Fiction" (2011, 2012, 2014, 2015), "The Price of a Dream"; in the anthology "Phantom". She is a co-author of the science fiction novel "Fimbulwinter" (2013) and the novel in short stories "The Theory of the Wild Field. Sofia" (2016). In 2013 she was awarded the National Prize of Ukraine for Science Fiction for the novel "Point of reference". Plots of her fantastic works are permeated with the belief that "somewhere out there, among the flickering lights of distant stars, other worlds and other civilizations are lost ... and humanity in its development will someday reach stellar heights, conquer space and time."

The science fiction novel by E. Krasnoselskaya "Digital rains of time" (in the original «Цифрові дощі часу», 2017) is an unconditional "proof of a new way of thinking and a new attitude to the world in which there is depth, to the world with blurred boundaries where spatial layers intersected with hidden currents of other realities" (Lupinos, 2017). The philosophical-existential category of time, through the prism of which the author reproduces the possible tragedy of the future, is its genre dominant, which the writer confirms: "My novel is only one attempt by one person to understand what Time is ... each of us is only a man, only an attempt, only a transition, only one attempt of one person to understand what Time is ..." (Krasnoselskaya, 2017).

In the second decade of the 21st century, Ukrainian fantastic fiction literary criticism was enriched by theoretical considerations and new approaches to the classification of fantastic fiction genres. They paid attention to the tendencies of interpenetration of certain forms in the overall structure of the work, highlighted the concept of meta-genre and mega-genre of fantastic fiction as a kind of "parallel literature in which there exist all genres and all directions, but only with an additional element of invariance".

In postmodern aesthetics, this process has touched not only the "canonical" genres, but also genres of popular literature, to which fantastic fiction traditionally belongs. The problem of using established genres acquires a new meaning, the postmodern genre theory is based on hybrid organization, in which specific features of one or another genre "are combined according to the principle of nonselection and thus reflect a typical sense of chaos and epistemological uncertainty". The genre of the work in the usual sense of the term is excluded; instead, we can talk about the "matrix" of the work, the constructive basis of which would be cemented by other genre layers (Markova, 2003).

Genology points to the diversity of genres and varieties in the middle of fantastic literature as a genre system: fantastic fiction concerns any genres. On the basis of various approaches to the genre classification and literary practice, scientists distinguish three main genres - actual fantastic fiction, science fiction and fantasy (taking into account the tendency to genres interpenetration) (Horob, 2014).

These circumstances should be taken into account when analyzing the genre nature of such a complicated work as Elena Krasnoselskaya's fantastic novel "Digital rains of time".

1. Introduction.

1.1 Relevance of the problem

The continuing relevance of the genre theory issue is stimulated by the potential of the genre itself, its flexibility against the background of preserving genre matrix, functions of genre and genre evolution, the ability to modify. The genres of fantastic fiction are undoubtedly the most mobile and changeable.

Identification of genres is still a subject of discussion among domestic and foreign scientists, therefore the change of the genre registers requires a more careful scientific description. Postmodern paradigm of the late XX - early XXI centuries reinterprets the place and role of genres in fantastic fiction, actualizes the need for a comprehensive analysis of the works of writers who experiment, actively using the techniques of "hybrid" poetics.

Scientists quite reasonably believe that for today it is possible to state with certainty the absence of stable criteria for a unified classification of genres. According to the Ukrainian scientist I. Zimorya, "Genre is a mobile, dynamic and historically variable structure. It transforms, falls under the influence, acquires changes depending on the cultural and historical context "(Zimomrya, 2010). The genre matrix of fantastic fiction also reflects the general tendency of modern literature to blur the genre boundaries. The genre of a work in the usual sense of the term is excluded; but we can talk about the "matrix" of the work, the constructive basis of which would be cemented by other genre layers. As A. Aksenova notes, "... in the literature of the late XX century, occurs not so much of a genre synthesis but synaesthesia - hybridization and diffusion of genres, an exit beyond the genre boundaries of the work with the acquisition of adjacent forms features that are not inherent to it in nature "(Aksenova, 2010). However, changing, experiencing diffusion with other genres, the genre matrix of fantastic fiction preserves in the depth of the structure constant canonical features, thereby providing a link between tradition and innovation.

Some researchers call the destruction of the usual genre classification - creative anarchy, a process that does not obey any laws at all. In particular, N. Alexandrov believes that " genre remained only as an object of aesthetic reflection, that is, the memory of the genre is preserved, and the return to the restrictive genre norm is possible only with an emphatic stylization "(Aleksandrov, 1995). Maurice Blanchot wrote: "The book is important in itself, as it is, without any genres, beyond any rubric ... the book does not allow itself to be placed under these rubrics and denies them the right to determine its place and form; it does not belong any more to any genre, any book belongs to literature in general, as if the latter in advance contains secrets and formulas in their universality, that only allow the book to give a reality to what is written "(Blanchot, 1959). The English scientist N. Cornwell comes to the conclusion that the concept of "fantastic" actually contradicts many literary theories of genre, although it is also evident that a detailed study of "fantastic" is possible only in the system of literary genres (cited in: Sikovskaya, 2015).

Writers have their own opinion. For example, in the correspondence of this article author with one of the most interesting Russian-language writers, Vladimir Voinovich, it turned out that the classic disapproves the confusion of genres, believing that in this case, one genre is replaced by another. He strongly opposed the mixture of traditional stylistic literary means with elements of journalism and statistics, considering this method as "camouflage for an anti-utopia" (Senkevich, 2017). Writer Michael Weller suggests establishing in literature a gradation in low and high genres: "one must either recognize the ancient gradation in low and high genres

or measure each one according to its laws ..." (Weller, 1994), that is low ones can not be measured according to high criteria. Thus, there arises a kind of literary hierarchy, where a fantasy fiction novel is prepared for the role not even of mass but of second-rate literature (read, low-standard - the author), which can not rise to a more significant position in this hierarchy and is solely a product of time, fashion and changing reader's demand.

The relevance of this work is also due to the fact that modern literary context positions the flowering of Ukrainian literary fantastic fiction, which appears to be an equal genre along with fantasy and science fiction.

The absence of a comprehensive scientific analysis of one of E. Krasnoselskaya's novels "Digital rains of time" in the context of genre peculiarity remains an urgent task that will help to understand the vector of the fantastic genre movement in the context of the particular writer poetics.

Thus, the growing interest in the newest tendencies in the genre formation of fantastic fiction makes us have a fresh look at the indicated problem, generalize the results of literary discussions and make a holistic analysis of the novel, reveal the components of the panoramic creation of fantastic reality in the novel.

1.2 Research hypothesis

The authors of the article intend to prove that the novel by E. Krasnoselskaya "Digital rains of time" is an author's experiment in its own way - with a clear unconventional genre shade; the phenomenon of genres hybridization in the novel positions a unique organic alloy from inorganic to each other substances; the novel presents all the basic elements of hard science fiction: the scientific idea, parallel worlds, time travel, impossible transformations, personal metamorphoses, robotics, which according to the author's plan is woven into rigid "scientific and technical" frameworks. The genre specificity of E. Krasnoselskaya's novel lies in the co-existence of its various modifications in the framework of one work. The features of these genre varieties penetrate each other, genre boundaries are erased. As a complex of stable elements, the matrix sets certain parameters of the text architectonics, determines the specifics of the author's narrative.

2. Materials and Methods

2.1. Theoretical and empirical methods.

To solve the problems set in the study and to test the hypothesis, a set of general scientific and empirical methods was used: theoretical method (the study of methodological and critical literature on the problem under study); comparative method (the detection of similarities and differences in literary categories), psychological method (understanding the inner state of the heroes of the work), and receptive method that allows better understanding of the author's idea in the context of existing literary traditions, historical processes and scientific theories.

2.2 Methodological Framework.

The main ideas of the fundamental works of famous fantastic fiction literary critics, representatives of the foreign school Ts. Todorov, S. Lem, A. Zubov, E. Bratuit, M. Blanchot and others, scientific works of Ukrainian scientists S. Horob, O. Saykovskoy, O. Stuzhuk, I. Kiyak, M. Nazarenko, I. Zimorya are the methodological basis of the analytical discourse.

Modern scientific discourse positions several aspects of "fantastic fiction" concept - everyday, receptive and aesthetic. The aesthetic aspect produces new discussions

of scientists: different approaches are found when determining the affiliation of fantastic fiction to genre categories, literary / creative method, narrative technique, a specific method of literary conditional character.

Literary criticism offers several options for understanding fantastic fiction: it is interpreted as a "type of creative work", "trend", "genre", "artistic (creative) method", "variety of literature", "meta-genre", "method of literary conditional character". Scientists somehow define fantastic fiction as a certain type of literary creative work (Sikovskaya, 2015).

In the context of the problem under consideration, the following methodological concepts are fundamental in our view: the connection of genre affiliation with the level of generalization on which a particular genre is considered (Todorov, 1999); fantastic fiction as a literary concept - is a dynamic meta-genre with a clear dominant of "fantastic" (unusual, unreal, mysterious, wonderful, conditional) that reflects human and social problems through interaction of content and form, which are interdependent with the means and methods of the unusual world modeling and the components of idiostyle (Horob, 2017); the fantastic idea can be an end in itself, with this approach, the fantastic thing can be the "ultimate goal" (Lem, 2007), a genre-forming factor of such subgroups of fantastic fiction as "actual fantastic fiction, science fiction and fantasy" (Stuzhuk, 2006), where fantastic things are manifested at all levels: compositional, stylistic, thematic (Sikovskaya, 2015); a meta-genre is understood as structurally expressed, neutral with respect to the literary genus, the established invariant of many historically concrete means of artistic modeling of the world, which are united by the common object of the artistic image "(Stuzhuk, 2006); fantastic fiction is "an image of the world in which an element of miraculous (unusual, extremely improbable)" is introduced; "fantastic fiction as a genre represent reader's expectations and playing with them; fantastic fiction as a method (or device) does not cause, does not describe and does not refute such expectations. The main genre features of fantastic fiction, according to this concept, are "recognizability", "repeatability" and "a special way of seeing the world" (Nazarenko); science fiction is a "set of genre expectations" (Rieder, 2008).

2.3 Research base.

The basis for the study of this problem is the fantastic novel by Elena Krasnoselskaya "Digital rains of time" in the context of clarifying its genre identity.

3. Results and Discussion.

Investigating fantastic literature, it is necessary to find out its nature first of all. In classical and modern literary criticism, there are various approaches to the definition of literary fantastic fiction. Despite the variety of scientific discussions about the term "fantastic fiction", its unambiguous interpretation does not exist.

Fantastic, according to the modern philosopher E. Tsvetkov, appears as a kind of "human assessment of individual phenomena of being, perceived by a human from the standpoint of worldview as something wonderful, unusual, supernatural, fundamentally impossible in reality." The category "fantastic" of a literary work is manifested in the complex combination of "fantasy", "imagination", "desire" as factors of literary conditional character. Fantasy always accompanies art fiction and often helps to present scientific hypotheses, and often even predicts scientific discoveries. The fantasy that underlies the fantastic fiction is artistic, for it expresses a certain worldview of the author, realized in creative activity (Sikovskaya, 2015).

Only small number of Ukrainian literary critics are engaged in the problems of this genre. Among them should be noted S. Horob, O. Sikovskaya, O. Stuzhuk,

I. Kiyak, M. Nazarenko, I. Zimomrya. As S. Horobi rightly points out, it is appropriate to begin the history of fantastic fiction scientific research with the works by Ts. Todorov and S. Lem, since figures of the such level as Ts. Todorov and S. Lem, influence the development of both world and European, in particular Ukrainian, Polish, Russian, Croatian literary criticism concerning fantastic fiction, and the literary process (Horob, 2017). In addition, it was precisely from the work of Ts. Todorov, "Introduction to Fantastic Literature," that a scientific discussion began on the nature of fantastic fiction, its weighty research, the revision of genres theory. S. Lem was, as we know, an opponent to Ts. Todorov. He criticized the narrowness of fantastic works division from "unusual" to "miraculous" and ignoring such factors as "allegory", "irony" and others.

French researcher Ts. Todorov, in particular, considers the concept of "fantastic" (as a type of artistic thinking) central, emphasizing the connection between imaginary and real and proposing a genre classification. The main feature of this "intermediate" genre, according to his conception, is ambiguity, constant fluctuations in choice: reality or imagination, truth or illusion. According to Ts. Todorov, the "fantastic" effect exists as long as this question remains, this uncertainty in the interpretation of events. The scientist notes that fantastic literature may be regarded as a "genre", demanding the fulfillment of three conditions: 1) the literary text should make the reader to view the world of characters as the world of living people and to vacillate between a realistic and extreme interpretation of events; 2) the same vacillations can be felt by the character, in case of naive reading the reader can identify himself with the character; 3) the reader must have a definite position on the text: he must reject both allegorical and poetic interpretation of the text "(Todorov, 1999). Ts. Todorov explains that the "genre" of the fantastic fiction borders on the fantastic and unusual, on the one hand, and fantastic and miraculous, on the other, which leads to the emergence of new genre subdivisions: unusual (in pure form) fantastic (unusual), fantastic miraculous, miraculous in its pure form (Todorov, 1999). It is problematic to accept this concept absolutely, according to modern fantastic fiction experts, because there are also such fantastic genres, where no one doubts in the unreality of narration, for example, fantasy. It is proved that it should not be rejected either, because it concerns a certain group of fantastic works - let us say, actual fantastic fiction (Sikovskaya, 2015).

In modern science about the nature of genres, including literary fantastic fiction, they more and often pay attention to the tendencies of interpenetration of certain forms in the overall structure of the work. From this perspective, it is right to look at the selected genres. Utopia / dystopia was comprehended by literary critics, on the one hand, as closely related to the actual fantastic fiction or science fiction, and on the other - as completely self-sufficient phenomena. These genres are types of fantastic fiction as a meta-genre (Horob, 2017).

Thus, fantastic fiction as a literary concept is a dynamic meta-genre with a clear dominant of "fantastic" (unusual, unreal, mysterious, miraculous, conditional) that reflects human and social problems through the interaction of content and form, no matter what time and space writers describe, interdependent by means and methods of unusual world modeling and components of idiostyle (Horob, 2017). A feature of the actual fantastic fiction genre or the so-called "pure fantastic fiction", is its function to violate the norms of reality, causing vacillations in the reader and in the characters of the work. Literary conditional character, that is, fantasy is their main feature. Despite this, hesitating between real / unreal, possible / incredible, finally the reader / character accepts the authors' "rules of the game". Such extraliterary feature is one of the genres defining in this variety of fantastic fiction. In modern science fiction, the basis is a rational-fantastic concept, the harmonization of scientific and artistic discourse. An important component

is the subject-plot collisions, psychologicality and reflections of the main characters, the desire for intellectual analysis and illusions of the modeled reality authenticity (Horob, 2017).

Modern Ukrainian fantastic fiction, in the context of which the creative work of E. Krasnoselskaya is developing, is the part of Golden Age literary traditions with an unconditional reference to A. Azimov (in the fantastic world of Azimov, foreigners also searched long and hard the planet in our world. Since the Universe is rather big, it's very difficult to get from one space to another); as well as the traditions of great utopians and fantastic fiction writers who developed this genre. (Thomas More and Francis Bacon, Francis Godwin, Mary Shelley and Gothic novelists Hugh Walpole, William Beckford and Matthew Lewis, Herbert Wells, Aldous Huxley and Olaf Stapledon).

Fantastic fiction as a concept of the writer's artistic thinking is, as A. Lupinos notes, "the desire to comprehend the greatness of the Universe and Human co-creation, choosing for the achievement of this goal the sphere of science fiction ... The times of pulsation in the development of modern human civilization are passing, the vortex of permanent changes is gaining momentum, each person, so as not to perish, "must turn over consciousness," look at the world and at oneself from the other side of the Depths. It is the category of Depth that is the most important object of attention for the writer" (Lupinos, 2017).

"This is strong science fiction. I would even say that it belongs to hard science fiction. But what can distinguish my book from others belonging to this genre? Probably, the fact that I write about things that I understand well, which I am vividly interested in. I'm an expert in robotics, it's such a very interesting modern profession, which involves dealing with industrial robots every day, so I understand very well what I'm writing about. At the same time, I would call this fantastic fiction a reality, we will inevitably see it in future. I believe: everything that I write about will be sure to come true. The main idea of the book is an attempt to understand what time is. An attempt to imagine it, touch it. In addition, my new novel is poetic, it continues the tradition of the Zaporozhye poetic school ", - writes Elena Krasnoselskaya (Krasnoselskaya, 2017) about her work.

The novel "Digital rains of time" is a vivid example of creative genre hybridization and represents a tangle of classic novel, fantasy and science fiction elements. It, as the author herself noted, is realistic, since it traces the veracity of details in specific conditions. Industrial city - the city-forming enterprise - tough business - competitive struggle, there are elements of life-affirmation (saving a lost child at the cost of changing a commercial project), a description of reality, which is considered in dynamics.

The heroes of the novel are bright, exceptional personalities in unusual circumstances, which is inherent in Romanticism. The duality and depth of human individuality are visible to the reader from the first pages of the work. Penetration into the depths of consciousness and subconsciousness of a person, the movement of thoughts, impressions, feelings brings him to the representatives of the modernist school, and special attention to the spiritual world of a man, the experiences of heroes are elements of sentimentalism. "The writer immerses herself in semantic depths, turns to the primary lexical soup to convey to the reader the scale of the universal matrix of the Spirit, where a new formation of ideas develops - ideas at the intersection of science and art, that are born in the system of images - ideas in a voluminous (not flat) projection on art, "- writes about the peculiarity of Elena Krasnoselskaya's style (Lupinos, 2017).

The novel of E. Krasnoselskaya is a vivid example of genre modifications. Flexibility, the absence of rigid canons and predetermined motives broaden its

boundaries, make it possible to synthesize various genre features. In this work, genre models of fantastic realism and the description of scientific experiments are modified in the process of interaction and gravitate in their final synthetic version towards the birth of a new genre form of a fantastic novel. The possibility of their unification is conditioned by the similarity of the genre dominant, which is characterized in all these genres by the epic type of artistic thinking, genre content with a common range of problems.

The future in the novel is multidimensional: here there is Ukraine, the World, scientists, oligarchs, politics. Here there is Another World, not parallel and not perpendicular - another. There is a Contact, although not complete, but really alien. There is a man who fights destiny, runs races with time (Selirva, 2017).

In the opinion of the author of the article, the very concept of Time is presented in a completely different perspective than we are accustomed to feel and measure it in everyday life. It is akin to a living organism in the novel, the author "shapes" a story from it, forcing us to move in a multidimensional space. On the cover of the book, Igor Sokolsky's drawing symbolizes the inextricable link between Time and Life; a tree holds on its branches clockworks that blur, almost like those by Salvador Dali. But with the only difference that with such a semi-amorphous state they erase the boundaries between present and future, anticipating the author's message "Life itself creates Time and weaves it into the fabric of Space."

One can even say that Elena Krasnoselskaya in her well-founded reasoning stepped to some extent beyond the ideas of the recognized genius of Einstein. Vernadsky - that's who is close to her both in spirit and in the manner of thinking. "Time has seeped through us like water through sponge. And tiny particles of energy - that common, that united Time and Space. Bridges, through which you can understand the essence, teach energy to think" (Krasnoselkaya, 2017). - such a thought opens wide prospects for mankind, and the author believes that this hour will inevitably come, and an attempt to look into the future will only bring it closer.

Can the novel be entirely referred to hard science fiction? On the one hand, technical issues in the novel are described to the maximum degree professionally, because E. Krasnoselskaya was engaged for a long time abroad with practical developments related to welding technologies. An electric arc as a clot of energy and a mirage camera from which one observes the process are reflected in her text. Creative imagination and the ability to extrapolate the situation allowed her to wrap the acquired experience and knowledge in a readable literary shell with a dynamically developing plot. But, on the other hand, poetry is intertwined, which is not typical to usual fantastic works of the chosen genre.

Author of illustrations and graphics for the novel, famous Zaporozhye artist Igor Sokolsky partly explains this phenomenon by the influence of image creating art on the writer. In particular, we are talking about the author's deep ideological attachment to the work of Austrian artist Gustav Klimt, the founder of modernity in Austrian painting, one of the brightest and mysterious masters of the fine art of the past. He greatly influenced the poetry of the novel, determined its imagery and sensuality. As it is acknowledged by the writer herself, "Pear Gardens" by Klimt are full of emotional energy, natural force, prompting to action, to create fantastic images and extraordinary, bright and life-affirming plots.

In the novel, the image of one of the main characters - billionaire Berentovich - is impeccable from the external point of view: exquisite clothing, aristocratic habits, perfumes, office entourage, etc. But the deadly disease devalues his outward gloss and wealth, makes him vulnerable and "lands" him, returning to the realization of the social destiny of a man, for example, to responsibility to his own son. The billionaire understands that in pursuit of profit, super-fortune, he does not have

time to enjoy life on earth, not subjected to crispy notes. He did not have time to bring-up, give what social science calls emotional warmth and parental care. He regrets. And - as a result - inevitable inner remorse. Belated. Confrontation of social categories "business - morality" is, of course, resolved in favor of the latter.

In the novel, emotions and feelings are intertwined with modern scientific and technical terminology, aesthetics - with pragmatism. Is it possible then to refer "sentimental" or lyrical-epistolary fantastic fiction of E. Krasnoselskaya ("prosepoetry") to purely science fiction? No, it is not. This genre is often identified with "technical fiction", which is nothing more than its sub-section ("Rama's Appointment" by A. Clark). We are talking about the possibility of a "quasi-scientific explanation", since reliable and actual scientific justifications are encountered in science fiction rather rarely. Even the classic novels of J. Verne (From the Gun to the Moon) and G. Wells (The Time Machine, The Isle of Dr. Moreau, The Invisible Man, The War of the Worlds) were wrong from the scientific point of view (important scientific theories were distorted in them), and the authors understood this perfectly. Likelihood in science fiction is always more important than scientific truth.

The work becomes science fiction if it has at least one, but a subject-forming science-fiction element. M. Bulgakov's "Heart of a Dog" is similar in genre with "The Island of Dr. Moreau" by G. Wells; "Lord of the Flies" by William Golding - science fiction with a touch of mysticism and part of religious fiction, says researcher M. Nazarenko (Nazarenko).

4. Conclusion

Elena Krasnoselskaya's novel is a kind of author's experiment - with a clear, unconventional genre shade. On the one hand, it presents all the basic elements of hard science fiction: a scientific idea, parallel universes, time travel, impossible transformations, personal metamorphosis, robotics, etc. According to the author's intention, all this is woven into rigid "scientific and technical" frameworks.

The novel "Digital rains of time" is an attempt to understand the structure of mind existence Sphere (Vernadsky's noosphere), to discard any warnings, not to cross - but destroy - the boundary between virtuality and objective, spatial reality. Then the City of Time appears, then it becomes clear how it is possible for the "geometrical network of emotional waves to cover the school and illuminate the slopes of the hills that pulsate within the perception limits", so that "there is a digital rain" and "every digit ... is a projection of the form in the image. "

Peculiarity lies, first of all, in the very idea - the author considers and represents TIME as a form of physical and psychological processes, the condition for the possibility of changing the world. The assumption comes to the fore: energy is something common that unites all processes-phenomena-objects in the Universe.

As an expert in the field of industrial welding processes robotization, the author suggests the idea of space-time robotization: if pure energy (this is an energy cluster "flock-bot" in the novel) is given a certain algorithm, it can carry information through TIME.

The author considers TIME from different angles, unfolds time in front of the reader as an object of cosmic scale, showing the architectonics of its structure, the ratio of all the tiniest facets of its forms.

And a digit also - as an image; as a construction method, the projection of any dimension spaces. Possible impact of the digital world on terrestrial and space processes.

The elements of the new aesthetics are a view on the world through the prism of art: the assertion that the same basic laws of harmony, symmetry, proportion,

rhythm, etc. act at the basis of all micro- and macro processes occurring in the universe. These laws are reflected in music, painting, architecture and other forms of art. Through art we show our inner world. Art can become that universal means of communication with any form of life in the universe.

The peculiarity lies in the unusual for science fiction author's style - poetic prose, elements of art.

At the same time, the author of the novel, guided by the postmodern code, did not remain indifferent to the traditional ways of depicting a man and social relations inherent in classical literature. Elena Krasnoselskaya masterfully outlined the main category that permeates the novel - the existential consciousness that models the type of relationship between a person and his environment. It is connected, first of all, with the objectification of the surrounding world through the prism of a personal worldview.

The actualization of this type of consciousness is connected with the experiences of the "boundary situation", which reveals the fragility, catastrophism and dramatic nature of human existence. The novel is existential in its essence, and the combination of two principles in the plot - sci-fi and existential elements - makes it vivid and interesting.

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THE STUDY OF UNIVERSITY STUDENTS' SOCIAL IDEAS ABOUT MEDIATION

Abstract

The urgency of the research presented in the article on the formation of ideas about mediation among modern students is due to the sensitivity of the student period for the development of communicative competencies that allow to establish and maintain a system of social relations and interpersonal relationships, to resolve situations of conflict interaction optimally. These goals are achieved by the application of the mediative approach in communication, based on the idea of mediation as a procedure and technology. The purpose of the article is to present the basic results of theoretical substantiation of the importance of the optimal formation of the students' perception of mediation as a phenomenon, the main results of empirical verification of the proposed assumption about the features of students' ideas about mediation and to identify ways of further research and application of the data.

Keywords

conflict, alternative ways of conflict resolution, mediation, types of mediation, social ideas about mediation

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Since January 2011, the Federal Law "About an Alternative Procedure for Settlement of Disputes with the Participation of an Intermediary (Mediation Procedure)" dated 27.07.2010 No. 193-FL has entered into force in the Russian

Federation. This Federal Law in Russia officially established the institution of mediation - disputes settlement procedure with the participation of an independent person as mediator. One of the spheres with a wide potential for mediation institution implementation and development is educational environment, including educational environment of Universities.

Conflicts of various kinds often arise in a student environment. They can develop and occur directly in the educational institution, as well as outside its walls. Student conflicts attract the attention of researchers and practitioners due to diversity of their causes, manifestations and scale. Such conflicts are related to the educational process, the specifics of its planning and implementation, and they can also be caused by personal and social psychological reasons. Conflicts affect the lives of students, can lead to deterioration of health, learning results, create tense situation in the student group, in the system of interaction with the administrative and faculty staff resource of the educational institution, can cause a feeling of dissatisfaction with learning, which undoubtedly affects the optimality of professional competencies mastering.

One of the ways to resolve conflicts effectively is mediation. This procedure provides an opportunity to resolve the conflict, taking into account the interests of all parties involved in the conflict, and come to a favorable decision for them.

It can be assumed that the problem of low and / or unsystematized awareness of the mediation procedure, the lack of information about the basic components of mediation ideas among students can make it difficult to resolve conflicts effectively in the student environment.

The object of the undertaken research were ideas as a socio-psychological phenomenon, the subject - the idea of mediation among university students. The purpose of the research was to identify characteristic features of university students' ideas about mediation. As a hypothesis, we made an assumption that the students' social ideas about mediation are characterized by negative emotional component and fragmented knowledge. We also assumed that students studying Psychology would have more pronounced emotional component of social ideas about mediation than that of other students.

To achieve this goal and verify the hypothesis, basic tasks were set: theoretical analysis of the social ideas about mediation and their formation problem; empirical study of the content of social ideas about conflict resolution through the mediation procedure for students.

The following methods were the main ones in the study:

- theoretical: analysis of social and psychological literature, normative, legislative, instructive and methodological, working documents, procedural materials on the researched problem; study and generalization of innovative experience; analysis and synthesis in the course of working with literature;
- empirical: questionnaires; project method; scale technique; mini-composition; conversation; content analysis;
- methods of mathematical statistics when processing empirical data: U-criterion by Mann-Whitney.

The battery of methods focused on a comprehensive study of the social ideas components was used in the empirical work:

1. Method for measuring the emotional component in the structure of ideas (Crites, Fabrigar and Petty, Crites, Fabrigar & Petty, 1994);
2. The method of associations by P. Verges (1992) for studying the cognitive component of ideas;
3. Unfinished sentences for the study of cognitive component of ideas (modification of the unfinished sentences method; D. Sacks and S. Levy, 1950);

4. Scale technique for the study of behavioral component of ideas (scale modification by R. Likert, 1932).

The study involved 210 respondents aged between eighteen and twenty-five. The sample included full-time students of different faculties at Baltic Federal University named after Immanuel Kant.

At the theoretical stage of the study, it was established that the psychological school by B.G. Ananiev was particularly engaged in setting up a students' problem field, in accordance with which the student age is a "sensible period for the development of the basic sociogenic potentials of a person." Higher education has a considerable impact on the human state of mind, as well as on the development of the individual as a whole (*Sudakova, 2015*). Choosing students within the age of maturity-adulthood is based on a socio-psychological approach.

From this perspective, students can be viewed as a special social category, since this is a specific community of people, which is united in an organized way by one or another institution of higher education. Thus, I.A. Zimnaya highlights the main characteristics of the student age, distinguishing it from other groups: first, high educational level; second, high cognitive motivation; as well as the highest social activity and a fairly harmonious combination of intellectual and social maturity (*Nikitina, 2010*).

Considering a student as a person of a certain age and personality, it is possible to characterize his three sides: psychological, social and biological. In the framework of this study, special emphasis is placed on the psychological and social components of this phenomenon.

The psychological component here reflects the integrity of the psychological processes, states and properties of the individual. Social relations dominate in social component, qualities generated by the student's belonging to a particular social group, for example, nationality, social roles that actively emerge during this period and are related to both studying and staying in a particular group.

Researchers note that the student's period is the time of the most active development of moral and aesthetic feelings, the development of character, mastering of the full range of mature person social roles: civil, family, professional, etc. In this period, people also begin their economic activity, which demographers define as joining of a person to independent productive activity, creation of a working biography and starting one's own family. The time of study at the university is superimposed on the second period of adolescence or the first period of maturity, which in its turn is characterized by the difficulty of personal traits formation. At the same time, a person's ability to regulate his own behavior consciously during the active student period at the youth stage is not fully developed. We can often observe an unmotivated risk in behavior, inability to anticipate the consequences of one's own actions, which can often be based on unworthy motives, and so on, which leads to an increase in the number of conflict interaction situations.

Thus, the ability to resolve conflict situations constructively and optimally serves as an element of competence that is relevant for students as a social group. Mediation is just one of the most effective ways to resolve conflicts.

Today, researchers of the phenomenon and technology of mediation consider its various definitions.

Briefly mediation is defined as arbitration in the conflict of the third party not involved in it, where the mediator is the intermediary in the conflict (*Burtovaya, 2003*).

G. Meta defines mediation as participation in a conflict of a neutral, disinterested party, which is authoritative for all conflicting participants. Mediators initiate the process of clarifying all the circumstances. At the same time, the mediator does

everything possible (and this is the basis of mediation technology) so that the position and the feelings, wishes, interests, needs of the parties would be first "laid out on the mediation table", then heard and understood by all participants, the arguments worked through, and at the end, a common solution worked out - an exit from the conflict situation, which suits all parties (*Meta, Pokhmelkina, 2004*).

Mediation can be considered as an independent, extrajudicial way of settling an argument through negotiations of the parties with the assistance of a neutral person - a mediator (*Kalashnikova, 2011*).

By definition of A.V. Vishnevskaya "mediation is a process in which a neutral third party, a mediator, helps to resolve the conflict, contributing to the working out of a voluntary agreement (or "self-determination") between the conflicting parties. The mediator simplifies the process of communication between the parties, understanding of positions and interests, focuses the parties on their interests and seeks a productive solution to the problem, giving the parties an opportunity to come to their own agreement (*Vishnevskaya, 2006*).

O.V. Allahverdova proposes to understand mediation as "a negotiation process in which a mediator (intermediary) is its organizer and he manages negotiations in such a way that the parties would come to the most beneficial, realistic and satisfying interests of both (all) parties agreement, as a result of which the conflict between the parties will be settled" (*Allahverdova, 2009*).

Thus, the complexity of unambiguous understanding of mediation is associated with a wide range of its application, the variety of organizational forms, types and models of a conciliatory procedure involving a mediator.

Intervention (mediation) differs significantly from arbitration, primarily by the fact that it involves the participation of a third party (intermediary) who does not pronounce judgement on the dispute. A mediator contributes to the resolution of the conflict, and his functions may change in different cases, depending on individual characteristics and wishes of parties and their lawyers, as well as on the nature and history of the conflict and personality of the mediator.

E. Wattske notes that, unlike the criminal-judicial practice, mediation is based on a constructive understanding of reality. This cognitive-theoretical position is grounded on the premise that each reality is constructed both by action and by active cognition in the process of exchange of actions (in interactions). Thus, reality is the result of very subjective processes of constructing the observation results (*Meta, Pokhmelkina, 2004*).

The main difference of mediation from other types of dispute resolution is its non-directive character. Mediation only uses the law, in contrast to traditional methods of dispute resolution, which are based on legal regulation. Mediation is the most flexible and democratic way of resolving disputes, based on the voluntary participation of the parties. And at the same time, it creates the conditions for the parties to control not only the decision-making process, but, most importantly, the quality of this decision, guaranteeing them complete confidentiality, safety of reputation and the possibility of constructive partnership in future. Mediation allows you to find solutions in which there are no losers. Mediation seeks consensus solutions that maximally reflect the interests and needs of all parties involved in the dispute, that creates the opportunity for everyone to win.

According to G. Meta, the prerequisites for the beginning of mediation are the presence of motivation among all participants in the conflict (voluntariness); self-responsibility by each participant (everyone can and must represent himself); readiness to accept disagreement (openly discuss the essence of the conflict and the state of things); willingness in principle to an agreement (interest in overcoming the conflict) (*Meta, Pokhmelkina, 2004*).

The obvious advantage of resolving disputes through mediation is confidentiality. Mediation is a confidential procedure, which means that the risks of damaging the reputation of the company are minimized here, in addition, by resolving the conflict, the parties can be sure that its details will not be made public, especially concerning those moments that make up a commercial secret. The undoubted advantage of mediation is the saving of time for the settlement of the current disputed situation, and this is an important factor in the economic activity. The advantage of mediation is economical resolution of disputes. Mediation allows you to make the resolution of the dispute as comfortable as possible for the parties. What is very important in business - is the opportunity to maintain partnerships in future (*Shamlikashvili, 2008*).

Methods and techniques of mediators include, among other things, elements of conflict management, negotiation, group dynamics, communicative and behavioral training techniques, system theory and therapy, problem-oriented systemic therapy, short-term therapy, conflict analysis and client-centered therapy. Mediation is based on moderation and coaching methods. Elements of the listed methods were specially adapted for mediation, some of them were developed further and were reformed already in the actual practice of mediation (*Meta, Pokhmelkina, 2004*).

There are different forms (models, approaches) of mediation in modern practice which, however, are not clearly expressed alternatives to each other. The most popular and studied in the rank of technology are:

1. Mediation focused on solving problems, or "classical" mediation (*problem - solving, or settlement - directed approach*);
2. Transformative mediation (*transformative approach*);
3. Narrative mediation (*narrative approach*);
4. Ecosystem, or family-oriented mediation (*ecosystem, or family - focused approach*);
5. Mediation based on understanding, or facilitation mediation (*understanding - based approach*);
6. Evaluation mediation (*evaluative approach*).

It is obligatory for a mediator to gain mediation competencies (*Kalashnikova, 2011*).

To understand the mechanisms of mediation, one should pay attention to its goals, stages.

The following goal settings for mediation are defined (*Meta, Pokhmelkina, 2004*):

1. First of all, - to discuss, to study a difficult situation. In this discussion there should be a place for different points of view, often incompatible views on events or options for getting out of a difficult situation. The result of successful mediation is the concrete agreement reached on the basis of discussion and agreement. The principle of self-determination of the parties remains decisive in the course of all mediation. Decisions become decisions only if each individual participant recognizes them as such.

2. The ability to dialogue and constructive interaction is violated in conflict situations. Achieving a positive shift towards the restoration of this ability, mediators make sure that every participant is heard and be treated with respect. Ideally, after the end of mediation, emotional dissonance between the conflicting parties should disappear, and a resolved conflict should not interfere with mutual communication.

3. An honest, open study of the interests and values of participants increases the possibility of the reached agreement implementation. Agreements are often revised, changed if participants in the mediation process understand that their interests are also taken seriously, as are the interests of the "opponent".

For successful implementation of the task assigned to him, a mediator applies special technique of conciliation procedure, implying the passage of a number of phases,

stages. The mediator activity is a deliberate use of special techniques and methods in order to control the negotiations on each of the stages. Being a communicative process, mediation allows changes in the action sequence on one or another stage: "The sequence of steps must not be strictly kept to: depending on the type of conflict and the conversation, individual steps can be omitted or used elsewhere" (*Besemer 2005*).

One of the most urgent in mediation is the question about the main subject of the process - the mediator. He is demanded much of, as he should have not only a high level of professional ethics, authority, charisma, but also communicative competence (*Lukyanovskaya, 2011*). Dementiev O.M. notes that mediator should be able to: 1) assess conflict, breaking it up into individual problems and identifying the real interests of the parties; 2) be an impartial organizer, setting the tone for negotiations and helping the parties to reach a procedural and substantial agreements; 3) be active listener, separating the substantial aspects of the conflict from emotions of the parties and giving them constructive feedback; 4) be a tester for realism and feasibility of ideas expressed by the parties to resolve the dispute, helping them to construct reasonable and realistic proposals, in order worked out final agreements were reliable and long-term ones; 5) be a generator of alternative proposals to resolve the dispute, helping the parties to go beyond the usual stereotypes and often restricted views on their problem; 6) be an expander of parties' resources, directing them to those who can provide them with the necessary factual and other information, provide legal and economic advice; 7) be a teacher of negotiation art, teaching the parties to think, act and negotiate on the principles of cooperation and helping them to look for solutions that would meet their own interests, and the interests of the other party; 8) be able to assist the parties in bringing the agreements to completion, making sure that each party would remain in full awareness and responsibility in relation to the worked out agreement (*Dementiev, 2010*).

Mediation - is communication, an important feature and the result of which is not only reduction of conflict parties' emotional and cognitive stress, but also the satisfaction of their moral, psychological and material needs. Moreover, mediation as a process of negotiations and as the situation of psychological interaction is the reality of a man, who lives in conflict. The purpose of mediation is, first of all, removal of the emotional and psychological stress, help in establishing constructive communication, assistance to the parties in realizing their interests, removing psychological barriers, creation of such conditions for the parties when they would be able to see in the other party not only an enemy, an opponent, but a partner to search for mutually acceptable solutions of the problem (*Allakhverdova, 2009*).

In this regard, obviously important and relevant is the possibility of mediation approach application to communication by students. The basis for this is created by generated holistic idea of mediation as a complex social psychological phenomenon.

During the data processing of the empirical phase of researching students' ideas about mediation, it was established that emotional attitude to mediation is very weak. However, emotional component of respondents' ideas is, in general, positive, with a varying degree of manifestation. In 26.2 % of the respondents the attitude is negative, 73.8% have positive emotional component. Average score for the sample is 0.388095, which corresponds to positive, very weakly expressed emotional attitude to the considered phenomenon of mediation. 46.2% of respondents have a weak and very weak emotional attitude to mediation.

During the empirical research, 1076 associations to the term "mediation" were recorded in, that averages 5.12 elements per a respondent. Dictionary of notions listed 125 different words and phrases.

Analysis of the idea about mediation content suggests that this phenomenon is identified by respondents as dispute, conflict, it is stated that there should be resolution, compromise, procedural nature of the phenomenon, the presence of a mediator and / or intermediary and the third party is noted, there is the phenomenon of the court as well, and trial. However, the core includes the word "meditation" that has no relation to the content of mediation process, and therefore is a substantial mistake. Also, it is worth noting the appearance of synonymous unit "compromise" in the comments of respondents correlated with the experienced positive emotions towards mediation, connected with the need and the opportunity to come to an agreement on the basis of mutual concessions, to find a guaranteed solution that suits all parties of arising confrontations.

The peripheral system content of the mediation idea shows that this phenomenon, mediation, in the understanding of respondents has a structure, the methodology associated with help, negotiations, human communications and relationships system, contract, agreement, law, balance, relaxation, consent, cooperation, dispute, personal contacts.

A content analysis of the potential area of changes ideas about mediation leads to the conclusion that there is some knowledge of mediation, its structure, components and elements. But it is also important to note that respondents demonstrate such associations as " media ", " yoga ", " medicine ", which are false in this situation, and which should be corrected to avoid violations of the cognitive component of the ideas.

Social ideas about mediation among students are specified in ordinary thinking through feelings and states, indicate the presence of structural elements, attitudes and beliefs. In general, the analysis of the cognitive component of ideas revealed the predominance of categories associated with mediation as a phenomenon, technology, procedure, but it is recorded that there is no system and connections between the individual marked components of the notions. This may indicate that the cognitive component of students' ideas about mediation at the time of the research is superficial, stereotyped, it contains semantic abnormalities, reflected, in particular, in the provided associations.

On the basis of empirical data, we can conclude that in general respondents regard the concept of mediation positively. Moreover, the emotional component of ideas about mediation is more pronounced in students-future psychologists. However, it should be noted that the ideas of the majority of respondents (72.6 %) about this phenomenon are only partially true, obviously, due to lack of awareness.

Taking into consideration the results of empirical studies and materials of analyzed theoretical and practical basis, we outlined the scope of further study of ideas about mediation among students, in particular, to clarify the correlations with various source databases within the educational environment of the institution, to refer to external information sources. We formulated preliminary recommendations for optimizing the formation of ideas about mediation among university students in the educational process, for the organization of student mediation services, and also developed a program of the elective course "Mediation: socio-psychological basis of the procedures and professional activities" for students of humanities.

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MECHANISM OF CONTROLLING IN THE DIGITAL ECONOMY

Abstract

The article considers on practical experience of implementation of controlling in different countries. In the digital economy, the most promising management concept is controlling. Controlling can solve many management problems. Improvement of management based on controlling occurs in the mainstream of all major trends in the transformation of management at the present stage.

Keywords

controlling, digital economy, IT- technologies, innovation, management, budgeting, globalization of the economy, planning, coordination

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At the present stage of the development of society and social relations, mankind has entered a new phase of its development. This period is called the digital age. At a new stage in the development of civilization, human activity is associated with the creation, processing and use of information and certain knowledge. This knowledge is presented in digital form. Today most of the employed population is transformed from the production of traditional types of goods and services and participates in the processes of accumulation, storage, search, processing, and redistribution of information. Information becomes a consumer product.

At the present time, during the development of society and the formation of new social relations, the digital economy occupies a basic position in all spheres of public life. The digital economy has a significant impact on the labor market. Digitalization of the economic system is the main direction of development of the state, economy and public relations. The digital economy is a breakthrough technology in the system of sustainable development of society and social relations.

There is a problem of the need to determine the impact of digitalization on the needs of the economy, the change of the nature of work and the place of the person in the production chain, to identify new human professions in the transformation of the education system and the economy, the organization of labor is changing. The digital economy is based on digital technologies and implies

a new way of technological production. Changes in the nature of work require new professionals and new conditions of development.

Until recently, electronic economy was limited to the field of Internet trading and the provision of certain services through the Internet, but now the scope of other spheres of people's life has significantly expanded: health care, education, transport, etc. Digital economy becomes a new era on the way of mankind and comes to a new level of its development in the global information space. At the present time a digital society is being formed. A number of production issues are being resolved in the interaction between the subjects of economy. This interaction is carried out on the basis of three components: information, knowledge, communication.

Currently the market for innovations is growing. Digitalization of the economy influences the management system in the organization. The level of automation is growing. IT- technologies and innovative software are widely used in management.

The current stage of the development of the organization is characterized by fundamentally new trends and features caused by the powerful development of productive forces, scientific and technological progress of society. The globalization of the economy transforms production and economic relations into global ones, strengthens competition and risks, raises requirements to the rate and quality of innovations, strengthens barriers to the speed and accuracy of decision-making on the basis of a fast-growing and changing information base, constant monitoring of their implementation and the state of the business environment.

The revolutionary rates of the development of information technologies have created the basis for the formation of a fundamentally new mechanism for managing globalized business and for a drastic change in management in enterprises. Controlling is surely emerging at the forefront as a system that connects information technology capabilities with innovative management by providing management with the necessary information system on-line at any production scale. (Yusupova, 2014)

Controlling is focused on the long-term and effective development of information and analytical, methodological and instrumental support systems for the organization's managers in achieving their goals, ensuring the implementation of the management cycle in all functional areas and processes, by measuring the resources and results of activities.

The essence of controlling is manifested in its functions. The main one is the system support for decision-making by the management of the organization in all key areas of activity. This function is in close relationship with other controlling functions: information and analytical. Of particular importance in the study is the control function, in which indicators are monitored for planned and achieved results and the search for causes of deviations.

The aim of the controlling is derived from the goals of the organization. The main goal is the preservation and further successful development of the organization.

According to the modern approach controlling can be interpreted as an information support, oriented to the result of management of the organization. The tasks of controlling, therefore, are to orient the management to make decisions and take the necessary actions by preparing and providing the necessary information.

Controlling is an integrated innovation system based on computer technologies that provides constant information and analytical monitoring of the adoption and implementation of management decisions and carrying out constant adjustment of the system of plans and methods for their implementation on optimizing programs in given time, spatial and quantitative parameters in on-line mode.

Controlling can be represented graphically as the following scheme:

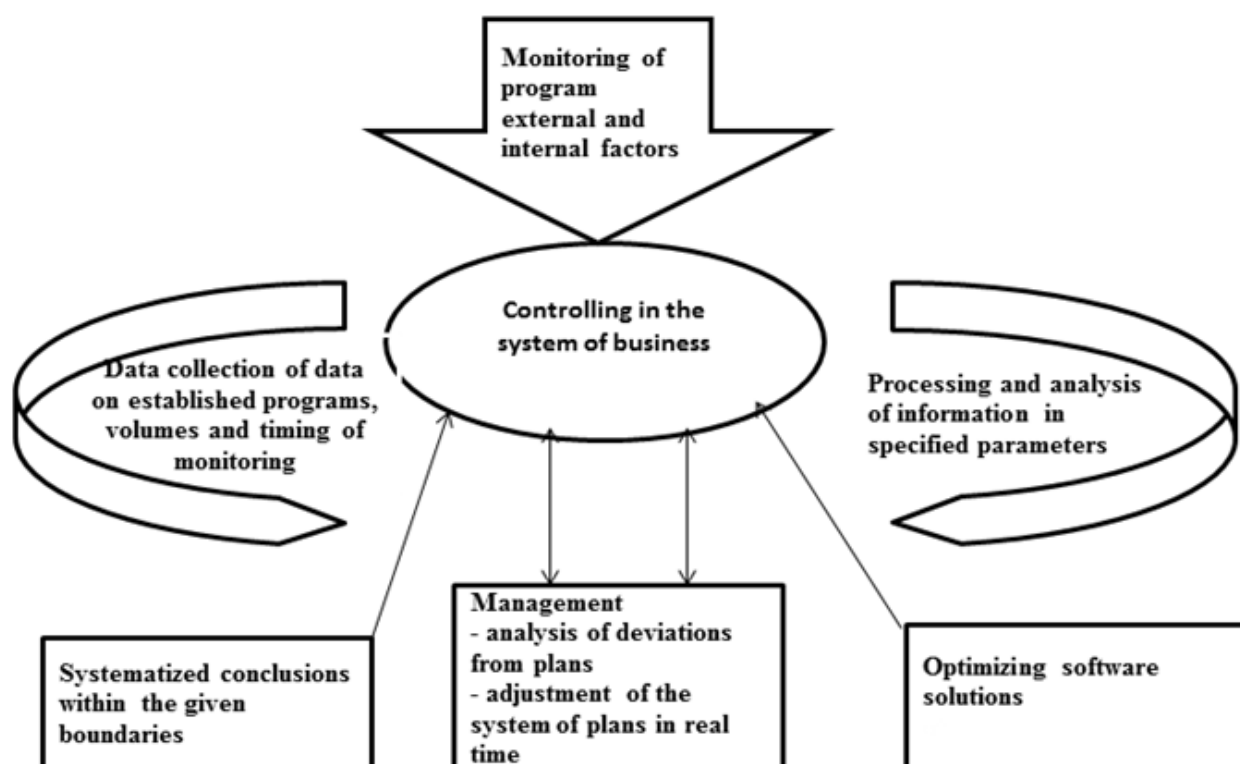


FIGURE 1. CONTROLLING IN THE ENTERPRISE

The controlling system as a management method originated in the 30s in the USA and was associated with the operational accounting of costs, the calculation of the cost of production. Later this system covered the accounting and analysis of performance, profitability analysis and profit management. Substantial development of controlling methods was obtained through the implementation of budgeting projects implemented by consultants from the world's leading consulting firms. The combination of controlling methods with IT-technologies turns them into a scientific concept of managing not only the present, but also the future state of the business, i.e. achievement of an oriented desired state in perspective. Controlling is a coordinated, interconnected complex of systems, coordinated and focused on optimizing the achievement of the company's strategic goals. The generated system and process structural blocks of controlling allow (remove the problems of planned and reporting dates for obtaining information) to monitor the development of all aspects of the enterprise and to adjust it in accordance with the choice of optimization programs.

The perspective presented by the system of strategic goals, immanently determines the necessary tasks, processes and structure to achieve the goals. Controlling functions are planning, control and coordination through the information base for the development of processes and system structures of the enterprise. The controlling system allows us to carry out sound strategic studies, system analysis and reengineering of processes and their adaptation to environmental changes. This makes it possible to consider controlling as an important tool for crisis management of business; it significantly increases its relevance in our days. With a proper level of formation of the main blocks of the system, including a marketing strategy that tracks changes in the environment, there is a much greater probability of taking into account crisis phenomena and taking timely necessary measures. Controlling is a management concept that integrates all spheres of the enterprise activity in real data: production, its structure and technology, resources and their movement, costs, finances, accounting, management, marketing and other internal and external relations.

The introduction of controlling programs gives a quick enough return, even if it is carried out separately, for individual units of organizations. Heads of foreign companies note, that carrying out of controlling costs ensures their reduction for design, production and sale; controlling products - quality improvement, expansion of application areas, reducing defects and claims; controlling logistics provides reduced stores, better customer service, increase in speed of delivery; marketing controlling leads to optimization of sales, better satisfaction of consumers' demand, etc.

The most common and quite effective is the application of controlling techniques in managing the costs of production and sales of products, i.e. the most mature function. Controlling programs allow for detailed regulation of direct costs and optimization of indirect costs, creating a sound basis for their distribution and calculation of the cost of products. Planning and budgeting of costs are carried out on the basis of cost centers and responsibility centers. Constant monitoring is being conducted to identify the reasons for the deviation of actual costs from regulatory costs, both within the responsibility centers, and in workshop and general production indicators. As a rule, the application of controlling methods in cost management is combined with their influence on the formation of product prices and financial performance of the enterprise. Undoubtedly, the greatest effect of controlling application ensures its integrated application for all management functions. However, a scientifically based comprehensively-integrated program in the practice of domestic organizations has not been developed and is far from universal in foreign companies. As a rule, controlling covers the implementation of individual functions and their various combinations. The weakest link in the modern controlling system is the development of programs for tracking crisis and risky activities and reliable optimization solutions, immediately included in the action.

The study indicates that the use of controlling systems at domestic enterprises is significantly behind foreign companies. In the globalization of the world economy, there is an active exchange not only of capital, but also of managerial activities. Thus, Japanese-owned automobile factories in the United States actively use controlling tools developed in Japan, and the FRG actively use the best practices of the United States. Thus, OTIS GMBH (Berlin) introduced factory controlling, controlling of installation, logistics, etc.

The complex controlling system is used mainly at large enterprises, at most others - separate subsystems. Managers of leading foreign companies identified the main reasons constraining development of controlling: poor information structuring (Coca-Cola), accessibility of information structure for management (Toyota), poor communication within the company (Hewlett-Packard), lack of specialists (Microsoft), concealment of reliable data at provision of accounting information to the controlling department (ABM), lack of coherence in the actions of external and internal controllers (Intem), information leakage (McDonald's), the subjective assessment of controller (Dell), the staff's misunderstanding of the importance of controlling events (GE), erroneous conclusions of the department of controlling in the formation of management information (BMW). However, in the presence of such significant advantages, these difficulties seem easily overcome.

A survey of managers of domestic organizations confirmed the opinion of foreign colleagues. At the same time, the emphases on the main reasons restraining the development of this progressive management method have rather shifted. The main reasons for insufficient rates of introduction of controlling in the managerial activity of business are the lack of information and methodological materials that allow to use the experience of domestic and foreign managers; lack of consulting and training firms with specialists in the development of the controlling system; insufficient possession of IT technologies of the administrative staff of enterprises;

weak development of management accounting at enterprises, which represents the basis for introducing controlling; low efficiency of obtaining information on the current activities of the branches and the company as a whole; weak financial discipline of line units; poor system of primary workflow, etc.

At the same time, the introduction of the controlling system as an innovative method of management is increasing. In Russia, there are special programs designed for effective business management in any field of activity, based on modern scientific developments.

Multidimensional analysis using cross tables and cluster programs is increasingly being used for implementation of tasks of financial management and making optimal decisions in practice. To control the most critical performance indicators of an enterprise, valuation maps are used. Typical methods of planning, accounting and analysis are used, which are supplemented and refined depending on the needs of the particular enterprise. (Yusupova, S.Ya., Makrusev V.V & Pozdeeva S.N. 2016)

Enterprises that have implemented such modern management systems not only control and plan their costs, but also ensure an increase in the efficiency of the use of all types of resources. They are able to minimize losses at each of the stages of introducing controlling (in the movement of commodity flows, in production, marketing, logistics, etc.), identify priority areas for the use of financial resources, as well as the ways of economy on each cost item. As a

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At the present stage in international practice, as a management system for a hotel-type organization, controlling is used in countries with a developed economy. The market of hotel services is dynamically developing, expanding the geography and spheres of activity. To withstand the competition of a large, medium and even a small hotel, management uses an innovative controlling mechanism.

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MODERN EUROPEAN RESEARCHES: ISSUE 1, 2018
ISSN 2311-8806

FOUNDER AND PUBLISHER
Privatuniversität Schloss Seeburg, Salzburg

EDITORIAL ADDRESS
Seeburgstrasse 8, 5201 Seekirchen am Wallersee, Salzburg, Austria
publisher@doaj.net

PRINTING HOUSE
Autonomous non-profit organization of supplementary professional education
“Inter-regional center of innovative techniques in education”
printed by permission of Privatuniversität Schloss Seeburg, Salzburg, Austria

Sent for printing 01-03-2018
Circulation 1000
Order 050117/463

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