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1

The complex mass from Henstock-Kurzweil-Feynman-Pardy integral

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Abstract

The Feynman integral is generalised so as to involve the random fluctuations of vacuum, from this integral the generalized Schrödinger equation is derived and the energy spectrum for the Coulomb potential determined.

1 Introduction

The purpose of this paper is to generalize the Feynman integral over paths in the case, where we consider random fluctuations of vacuum, and to derive the generalized Schrödinger equation. The article is the improved version of the author article (Pardy, 1973), where the Henstock-Kurzweil integral (Henstock, 1946; Morales, et al., 2017) is not involved in it.

First, let us remember Feynman's fictitious experiment by means of which he arrives at the integral over paths (Feynman & Hibbs, 1965). A source of electrons is considered in this experiment and a movable detector is fixed at a certain distance from the source. Between the source and the detector is put a screen with two holes, 1 and 2, in it. Now, we investigate the probability that an electron will arrive in the detector at various vertical distances x from the source. If we block hole 2, the particle will pass through hole 1, and if we block hole 1 the particle will go through hole 2. The probability $P_1(x)$ to find a particle at point x will be given in the first case like this:

$$P_1(x) = |\phi_1(x)|^2, \tag{1}$$

where $\phi_1(x)$ is the complex function called the probability amplitude corresponding to the path going through hole 1 in the detector. In the second case the probability to find a particle at point x is $P_2(x)$ and it holds good:

$$P_2(x) = |\phi_2(x)|^2, \tag{2}$$

where $\phi_2(x)$ is the probability amplitude corresponding to the path going through hole 2 in the detector.

If we leave open both holes, the probability of finding a particle at point x will be given like this:

$$P(x) = |\phi_1(x) + \phi_2(x)|^2.$$
(3)

Now, let us consider that there is not only one screen between the source and the detector but that there are N screens, each of them having M holes, with width $\Delta(A_i, B_i)_j$, where A_i , B_i are x-coordinates of the borders of the holes, j being an index belonging to the jth screen, $j = 1, 2, \dots, N$ and i being an index belonging to the ith hole, $i = 1, 2, \dots, M$; Δ denotes the length of the interval (,). We can say that the trajectory of the particle rises in such a way that the particle goes through interval (a_1, b_1) at the time t_1 , through the interval (a_2, b_2) at the time $t_2 \dots$, through the interval (a_n, b_n) at the time t_n , where (a_i, b_i) are intervals from the set of intervals $(A_i, B_i)_j$. According to Feynman, the probability amplitude $\phi(x)$ belongs to this trajectory. If we choose another set of numbers t_k , (a_k, b_k) , we get other alternative path of the particle.

It is obvious that there are a great many of these alternative trajectories, and therefore the total amplitude for the process is the sum of the amplitudes for each route considered separately. For the case $N \to \infty$,

 $M \to \infty$, all trajectories will be continuous functions of the time t, and the total probability amplitude for the transition of a particle from point a to point b is as follows:

$$U(b,a) = \sum_{a \to b} \phi[x(t)], \tag{4}$$

where $a \to b$ in Σ means summation over all trajectories from a to b and x(t) is the x-coordinate of a path. The amplitude is postulated as follows:

$$\phi[x(t)] = \frac{1}{A} \exp\{(i/\hbar)S[x(t)]\},$$
 (5)

where

$$S = \int_{t_a}^{t_b} L[\dot{x}(t); x(t)]dt \tag{6}$$

is the classical Hamilton-Jacobi action function and L is the Lagrange function.

Feynman & Hibbs (1965) have shown that the probability amplitude $U(x, x_0)$ concerning the transition of the particle from point x_0 to point x satisfies the integral equation

$$U(x, x_0) = \int U(x, x_1) U(x_1, x_0) dx_1.$$
 (7)

If we put $U(x, x_0) = \psi(x), U(x_1, x_0) = \psi(x_1)$, we get

$$\psi(x) = \int U(x, x_1)\psi(x_1)dx_1, \tag{8a}$$

or, generally

$$\psi(x,t) = \int U(x,t;x_1,t_1)\psi(x_1,t_1)dx_1$$
 (8b)

and the function $\psi(x,t)$ may be interpreted as the wave function of quantum mechanics.

For an infinitesimal transition from point x_k and time k_k in point x_{k+1} and time t_{k+1} , we can write (Blokhintsev, 1966):

$$U(x_{k+1}, k_{k+1}; x_k, t_k) = \frac{1}{A} \exp\{(i/\hbar) S[x_{k+1}, x_k, \Delta t]\},$$
(9)

where

$$S[x_{k+1}, x_k, \Delta t] = \left[\frac{m}{2} \left(\frac{x_{k+1} - x_k}{\Delta t}\right) - V(x_{k+1}) \Delta t\right] \Delta t, \tag{10}$$

where $\Delta t = t_{k+1} - t_k, t_{k+1} > t_k$.

2 Random fluctuations of the Vacuum in the integral over paths

Let us notice term eq. (4)

$$U(x_1, x_0) = \sum_{x_0 \to x} \phi[x(t)].$$
 (11)

We can see that all amplitudes $\exp(i/\hbar)S[x(t)]$ are multiplied only by a constant 1/A. In other words, the Feynman sum is constructed in such a way that all trajectories are considered equivalent and therefore equally probable.

The question arises, as to how the formulation of the problem must be changed if we include the random fluctuations of the vacuum. It is obvious that these fluctuations cause perturbations of the considered trajectories and, no doubt, in such a way that some trajectories will be less probable and others more probable. We arrive at this conclusion because it is obvious from the viewpoint of statistical mechanics that the particle will perform the Brownian motion as a result of accidental collisions.

This motion is described by the Wiener measure μ (Gelfand & Yaglom, 1956):

$$\mu = \int_{a_1}^{b_1} \int_{a_2}^{b_2} \cdots \int_{a_n}^{b_n} \times$$

$$\frac{\exp\left\{-\frac{(x_1-x_0)}{4D(t_1-t_0)} - \frac{(x_2-x_1)}{4D(t_2-t_1)} - \dots - \frac{(x_n-x_{n-1})}{4D(t_n-t_{n-1})}\right\}}{[(4\pi D)^n(t_1-t_0)(t_2-t_1)\cdots(t_n-t_{n-1})]^{1/2}} dx_1 dx_2 \cdots dx_n, \tag{12}$$

the physical meaning of measure μ being as follows: measure μ determines the probability that the particle goes through the interval (a_1, b_1) at the time t_1 , through the interval (a_2, b_2) at the time t_2, \dots , through the interval (a_n, b_n) at the time t_n , $t_1 < t_2 < t_3 < \dots < t_n$. The constant D in the formula (12) is the so-called coefficient of diffusion, and it involves size, mass, etc. of the elementary particle.

In consideration of what was said, we are forced to make an "intuitive" assumption that the amplitude $U(x, x_0)$ will involve the effect of fluctuations after multiplying term $[\exp(i/\hbar)S]/A$ by μ , where μ is given by eq. (12). For the infinitesimal transition from point x_k to point x_{k+1} we can write (Montroll, 1952):

$$\mu(x_{k+1}, x_k) = \frac{1}{(4\pi D\Delta t)^{1/2}} \exp[-(x_{k+1} - x_k)^2 / 4D\Delta t]$$
 (13)

and therefore for $U(x_{k+1}, t_{k+1;x_k,t_k})$ we get

$$U(x_{k+1}, t_{k+1;x_k,t_k}) \rightarrow$$

$$\frac{1}{A(4\pi D\Delta t)^{1/2}} \exp\left[-\frac{(x_{k+1} - x_k)^2}{4D\Delta t}\right] \exp\{(i/\hbar)S[x_{k+1}, x_k, \Delta t]\}.$$
 (14)

Now we can arrive at deriving the generalised Schrödinger equation.

3 The Generalised Schrödinger Equation

We have said in the introduction that ψ satisfies the equation

$$\psi(x_{k+1}, t_{k+1}) = \int U(x_{k+1}, t_{k+1}; x_k, t_k) \psi(x_k, t_k) dx_k.$$
 (15)

If we insert eq. (14) into eq. (15) and put

$$x_{k+1} - x_k = \zeta; \quad x_{k+1} = x; \quad t_k = t; \quad t_{k+1} - t_k = \delta,$$
 (16)

$$\alpha = \frac{m}{2\hbar\delta}; \quad \beta = \frac{1}{4D\delta} \quad \exp[-(i/\hbar)V(x)\delta] \approx 1 - \frac{i}{\hbar}V(x)\delta$$
 (17)

we get from eq. (15) the following equation

$$\psi(x,t+\delta) = \frac{1}{A} \left(\frac{\beta}{\pi}\right)^{1/2}$$

$$\int_{-\infty}^{\infty} \exp(i\alpha\zeta^2 - \beta\zeta^2) \left[1 - \frac{i\delta}{\hbar}V(x)\right] \psi(x-\zeta,t)d\zeta. \tag{18}$$

Obviously

$$\psi(x, t + \delta) = \psi(x, t) + \delta \frac{\partial \psi}{\partial t} + \cdots$$
 (19a)

$$\psi(x-\zeta,t) = \psi(x,t) - \zeta \frac{\partial \psi}{\partial x} + \zeta^2 \frac{1}{2} \frac{\partial^2 \psi}{\partial x^2} \cdots$$
 (19b)

We can write instead of (18) that

$$\psi(x,t) + \delta \frac{\partial \psi}{\partial t} + \dots = \frac{1}{A} \left(\frac{\beta}{\pi} \right)^{1/2} \int_{-\infty}^{\infty} \exp(i\alpha \zeta^2 - \beta \zeta^2) \left[\psi(x,t) - \zeta \frac{\partial \psi}{\partial x} + \dots \right] dt$$

$$\frac{1}{2}\frac{\partial^2 \psi}{\partial x^2} \zeta^2 - \frac{i\delta}{\hbar} V(x)\psi + \frac{i\delta}{\hbar} V(x)\zeta \frac{\partial \psi}{\partial x} - \frac{i\delta}{\hbar} V(x) \frac{1}{2} \frac{\partial^2 \psi}{\partial x^2} \zeta^2 \bigg] d\zeta. \tag{20}$$

After modification of equation (20) we get

$$\psi(x,t) + \delta \frac{\partial \psi}{\partial t} + \dots = \left(\frac{\beta}{\pi}\right)^{1/2} \times$$

$$\times \left\{ \frac{J_1}{A} \psi - \frac{J_2}{A} \frac{\partial \psi}{\partial x} + \frac{J_3}{2A} \frac{\partial^2 \psi}{\partial x^2} + \frac{i\delta J_1}{A\hbar} V \psi + \frac{i\delta J_2}{A\hbar} V \frac{\partial \psi}{\partial x} - \frac{i\delta J_3}{2A\hbar} V \frac{\partial^2 \psi}{\partial x^2} \right\}. \tag{21}$$

where

$$J_1 = \int_{-\infty}^{\infty} \exp(i\alpha\zeta^2 - \beta\zeta^2) d\zeta \tag{22}$$

$$J_2 = \int_{-\infty}^{\infty} \exp(i\alpha\zeta^2 - \beta\zeta^2)\zeta d\zeta \tag{23}$$

$$J_3 = \int_{-\infty}^{\infty} \exp(i\alpha\zeta^2 - \beta\zeta^2)\zeta^2 d\zeta \tag{24}$$

We can see that there is an odd function in J_2 . Therefore, $J_2 = 0$. For two remaining integrals we get, according to Gradshtein & Ryzhik (1963):

$$J_1 = \frac{\sqrt{\pi}}{(\alpha^2 + \beta^2)^{1/4}} \exp\left[(i/2)\arctan(\alpha/\beta)\right],\tag{25}$$

$$J_3 = \frac{\sqrt{\pi}}{2(\alpha^2 + \beta^2)^{3/4}} \exp[(3i/2)\arctan(\alpha/\beta)].$$
 (26)

We easily find that

$$\frac{J_3}{J_1} = -\frac{2i\delta}{\hbar}\gamma,\tag{27}$$

$$\gamma = \frac{\hbar D}{\left[1 + (\alpha/\beta)^2\right]} \left[i - \frac{\alpha}{\beta}\right],\tag{28}$$

and γ is not dependent on δ .

If we put

$$A = J_1 \left(\frac{\beta}{\pi}\right)^{1/2},\tag{29}$$

we can write instead of (21) that

$$\psi(x,t) + \delta \frac{\partial \psi}{\partial t} + \dots = \psi - \left\{ \frac{i\delta}{\hbar} V \psi - \frac{i\delta}{\hbar} \gamma \frac{\partial^2}{\partial x^2} - \frac{i\delta^2}{\hbar^2} \delta^2 \gamma \frac{\partial^2}{\partial x^2} \right\}.$$
 (30)

After comparing the coefficients with δ and modification, we get

$$i\hbar \frac{\partial \psi}{\partial t} = \gamma \frac{\partial^2 \psi}{\partial x^2} + V\psi \tag{31}$$

The last equation is the generalized Schrödinger equation for the onedimensional case only. For the case of three dimensions, we can write

$$i\hbar \frac{\partial \psi}{\partial t} = \gamma \nabla^2 \psi + V \psi. \tag{32}$$

We can easily verify that

$$\lim_{D \to \infty} \gamma = -\frac{\hbar^2}{2m}.\tag{33}$$

Therefore, equation (32) converges to the Schrödinger equation for $D \to \infty$.

4 The Energy Spectrum for the Coulomb Potential

Let us look for the solution of equation (32) in the form

$$\psi = \exp[-(i/\hbar)\varepsilon t)\varphi \tag{34}$$

After inserting eq. (34) into eq. (31) we get

$$\varepsilon\varphi = \gamma\nabla^2\varphi + V\varphi \tag{35}$$

By putting

$$\gamma = -\frac{\hbar^2}{2m'}\tag{36}$$

and

$$m' = m + \delta m, (37)$$

where

$$\delta m = \frac{i\hbar}{2D}.\tag{38}$$

we can write instead of equation (38)

$$\varepsilon\varphi = \frac{\hbar^2}{2m'}\nabla^2\varphi + V\varphi,\tag{39}$$

where m' is the complex quantity.

The fact that the mass m' is the complex quantity we interpret in such a way that we consider the complex mass as the mathematical notion suitable for the physical application. We arrive at this interpretation after comparing it with other authors who use in a similar way the complex quantities which have no immediate physical content. Popov et al. (1967) have introduced imaginary time for the description of the quasistationary processes. The complex potentials for describing the atomic collisions has been used by Mizuno & Chen (1971). Lee & Wick (1969) have arrived at the complex mass in the consequence of the indefinite metric, and Yamamoto & Kudo (1971) have considered the complex mass to be an integral part of quantum theory of fields. So, if the complex mass is of physical meaning it means that path integral involving random fluctuation of vacuum is also of physival meaning.

Now, we can start with the determination of the energy spectrum.

We know from quantum mechanics (Merzbacher, 1970) that the energy spectrum for the radial equation for equation (35) with the Coulomb potential

$$V(r) = -\frac{Ze^2}{r} \tag{40}$$

is given by the following expression:

$$\varepsilon_n = -\frac{Z^2 m' e^4}{2n^2 \hbar^2}. (41)$$

By putting

$$E_n = -\frac{Z^2 m e^4}{2n^2 \hbar^2},\tag{42}$$

where m is the classical mass of the electron, we get with regard to eq. (37) and eq. (38):

$$\varepsilon_n = E_n \left(1 + \frac{i\hbar}{2D} \right). \tag{43}$$

In the end we have for the wave function the expression

$$\psi = \exp[-(i/\hbar)E_n t] \cdot \exp[-(\Gamma_n/2)t]\varphi, \tag{44}$$

where

$$\Gamma_n = -\frac{E_n}{mD},\tag{45}$$

that is

$$\Gamma_n = \frac{e^4}{2n^2\hbar^2 D}. (46)$$

We note that the motion of the electron in the Coulomb potential is not stationary but quasistationary as a result of the term $\exp[-(\Gamma_n/2)t]$ in the wave function.

It is obvious that the random vacuum fluctuations will also effectively modify the potential V(r) in which the electron moves. The classical derivation of this effect with the electromagnetic fluctuations was performed by Welton (1948) and energy shift of H-atom electrons due to Gibbons-Hawking thermal bath was calculated by author (Pardy, 2016)

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STOE beginnings

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Abstract

The Scalar Theory Of Everything (STOE) was started from these initial considerations about the organization of the universe.

Theory of Everything, STOE.

1 INTRODUCTION

A physics model such as the Scalar Theory of Everything (STOE) has to start from some initial considerations.

We exist in a universe. Our senses have helped us use the resources of the universe to survive. Instruments help us discover universe characteristics our senses don't detect. Science is the study (humanity's method of problem solving) of the universe characteristics. Religion is another method of solving humanity's survival problem by creating morals to follow by a trial-and-error method. Science uses PREDICTION and USEFULNESS to determine science models which are confirmed by observations.

We expand our models outward from what we can directly observe to include more observations. The current challenge is to find a model of the big of cosmology and the small of light and the quantum world. Going farther than where we can observe or model with testable hypothesis is metaphysics which is largely useless because there will be no observations without simpler models to serve as a base. For example, statements concerning other universes are useless.

A fundamental principle is in the form of "If and only if all the systems we observe in our universe have property x, then the universe has property x. Examples include x= have a beginning; x= have an end; x=are bounded; x=have sources; x= have sinks; x=are finite; x=are part of a feedback system; x= are continuous or discrete; x action is by direct contact; x=entities interact; x=fractal structure; etc. Although our experience suggests otherwise, concepts such as "beauty", "elegance", "graceful", etc. in our eyes are not necessarily throughout the universe. The universe has a feedback loop (an x) (Hodge 2006), therefore feedback and the implied fine tuning are present in the systems of the universe.

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The minimum number of components of the universe needed to describe our observations is two. One is insufficient because an interaction (an x) is necessary to describe the variability (the continuous and discrete characteristics).

The next step is to describe the properties of the two components and how they interact to emerge into the entities and events we observe. This is done by examining observations and forming a model. The need for interaction is another reason for two components rather than one.

Because of the fractal or self-similar characteristic of the universe, "proof-by-analogy" is the preferred method of modeling. "Proof-by-logic" can be used to fill in the gaps that usually requires math. However, there are many characteristics that are unapproachable with proof-by-logic (math) such as vortices. Further, the choice of extending models to form predictions has many pitfalls such as linear regression frequently fails. Prediction with "proof-by-analogy" is simple - follow the analogy already present in the universe. Models treat many more effects outside our current ability to measure. Logic requires a starting set of assumptions that may have no resemblance to the physical universe.

The Scalar Theory of Everything (STOE) model suggests the two components of the universe are hods that are particles and plenum that is continuous. The STOE model provides a link with General Relativity - hods (matter) warps the plenum ("space", gravitational ether, etc.) and plenum directs hods (matter) (Hodge 2018).

The STOE model also provides a link between the classical world and the quantum world. The STOE model assumes waves in the plenum behave as observed in the Newtonian classical world (Hodge 2012).

Acknowledgments

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STOE explains "Planet 9"

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Abstract

Planet 9 is a hypothetical mass in the Kuiper Belt that causes the trans–Neptunian bodies to have unexplained orbits. The Scalar Theory of Everything (STOE) suggests the rotation curve anomalies of spiral galaxies, the Pioneer Anomaly, and the hypothetical Planet 9 phenomena are linked by a common cause, another application of the STOE Universal Equation.

Theory of Everything, STOE, Planet 9.

1 INTRODUCTION

Discrepancies in the orbits of Uranus, Neptune, and trans-Neptunian bodies began to be noticed in 1846. A model to explain these orbits remains elusive. Recently, a "Planet 9" hypothesis has been advanced and a search begun to find it (Batygin et al. 2019). Planet 9 is a hypothetical mass in the Kuiper Belt that attracts the trans-Neptunian bodies. The Batygin team suggests Planet 9 is in the general direction of Orion (Wikipedia 2019).

The Scalar Theory of Everything (STOE) suggests the non-Keplerian, rotation curve observations of spiral galaxies are the result of an outward force of a plenum Sourced from the center of spiral galaxies (Hodge 2006a). The STOE model applied a single "Universal Equation" successfully to calculate and compare the rotation curves to actual observations (Hodge 2018). The standard models of cosmology hypothesize Dark Matter causes these rotation curves anomalies. Despite large expenditure, the hypothetical Dark Matter remains elusive.

The STOE was also applied successfully to calculate and compare all 12 of the Pioneer Anomaly's observations compared to only one observation by the physics community, accepted model (Hodge 2006b). The Universal Equation was applied to galaxy redshift and then to the Pioneer anomaly for solar system conditions. The planets provide a Sink for the plenum that originates at the center of the Milky Way galaxy. The discussion noted that the Sagittarius A^* plenum effect (a_{Pgal} in the paper) becomes noticeable to cause orbital effects near the orbit of Pluto.

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The outward plenum force exerted on masses/planets is radial from Sagittarius A*. This force appears to be directed toward Orion from Earth. Therefore, the STOE explains the anomalous orbits of trans-Neptunian bodies similar to the STOE explanation of spiral galaxy rotation curves.

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STOE explaination for the "ether wind"

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Abstract

The Michelson-Morley, the Miller, and other experiments have detected an "ether wind" and have stirred a long–standing controversy. The Scalar Theory Of Everything (STOE) is applied to the measurements of the Miller experiment. The STOE's plenum is comparable to the ether. The result is the divergence of the plenum caused by the Sun and Moon and the measured direction of the "ether wind" are at an angle of $91^{\circ}\pm8^{\circ}$ with a confidence of 1σ . This suggests that these experiments are measuring the degree of tilt relative to the plenum divergence. That is, the measurements are not detecting the changing light path that results in the real Lorentz matter contraction hypothesis, but rather the measurements are detecting the changing light speed and direction caused by the divergence of the plenum. The support for the Lorentz matter contraction hypothesis as a real contraction is removed.

keywords: ether, ether wind, Michelson-Morley experiment, the Miller experiment, Lorentz contraction

1 INTRODUCTION

The ether has been proposed to be a medium filling all space between particles that transmits waves and directs particles. The concept of ether recurs throughout history. More recently it has been called by many names such as quantum vacuum, gravitational ether, and spacetime.

The "luminiferous ether" was theorized for the propagation of light. It was modeled as a fluid. When a body such as the Earth moved through the ether, it should create a wind called the "ether wind" (Michelson & Morley 1887). The Michelson-Morley Experiment (MMX) attempted to detect the "ether wind". Their result did detect a small positive value that was much less than expected and that has stirred a long–standing controversy. Special relativity assumes the speed of light is constant. The reality of the Lorentz material contraction in bodies derives from the model of a changing light path in the MMX.

Many others repeated their experiment. The Miller (1933) paper strongly supports some effect thought to be suggesting an ether. Miller calculated the

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"ether drift" was directed along an axis with the southern apex at right ascension $4^{\rm h}$ 54', declination -76° 33' at 208 km/s.

This and other similar experiments by others have a positive result. There are notable issues with the results. The "velocity" and direction match no known relationship to the Earth's axial rotation, the Earth's revolution around the Sun, the Sun's motion around the Milky Way galaxy, or the cosmic microwave background. Further, most, if not all, concepts of the ether suggest the ether supports wave action that requires the ether to have inertia (Hodge 2016). Inertia suggests the ether has viscosity to slow heavenly body's movement. Because the planets and stars systems have not collapsed, this has not been observed. This results in a quandary about what did Miller detect?

The Scalar Theory Of Everything (STOE) suggests the Newton (1730) model as a starting concept. Newton speculated the wave in aether travels faster (not slower) than the corpuscles of light and directs the corpuscles' path (Query 17). Newton's analogy was of water waves. Newton seems to have suggested that particles are directed by the divergence of the aether and that particles produce the wave phenomena in the aether.

The STOE has a plenum (like an ether) that is one of the two primordial components of the universe from which everything emerges. Indeed, the need to support waves is the reason for the ether in models. The STOE suggests that the plenum supports wave action and, consequently, has the property of inertia (Hodge 2016). The speed of the plenum waves is much faster than light as (Newton 1730; van Flandern 1998) suggests. The faster speed was used to develop the successful simulation of diffraction experiments Hodge (2012). In addition, the simulation suggested the speed of photons changes with plenum density and can be directed by the plenum divergence $(\vec{\nabla}\rho)$.

This Paper suggests the "ether wind" experiments are detecting the divergence of the plenum cause by the Sun and Moon. The description of the model is in section 2. The Discussion and Conclusion are in section 3.

2 The model and the calculation

The STOE model of the "ether wind" data is that the plenum density and divergence changes the speed and direction of the photons. Therefore, the photons in the MMX and Miller experiment have detected such changes. Accordingly, the calculation of direction should be sensitive to the divergence of the plenum. This divergence is determined by the Sun and Moon and all other bodies in the universe according to the Universal Equation Hodge (2018). However, the contribution of all other bodies than the Sun and Moon is relatively constant within the distance of the Earths orbit. Therefore, the vector direction of the plenum depends on the Sun and Moon in the calculation.

The Horizons database¹ was consulted to provide the position of the Sun and Moon on the four days at 00Hrs of Miller's observations. The vector potential

 $^{^1 \}rm https//ssd.jpl.nasa.gov/horizons.cgi on 19 April 2019$

of the Sun $\vec{V}_{\rm sun} = -\frac{GM_{\rm sun}}{r_{\rm sun}^2} \vec{r}_{\rm sun}$ and the Moon $\vec{V}_{\rm moon} = -\frac{GM_{\rm moon}}{r_{\rm moon}^2} \vec{r}_{\rm moon}$ where G is the gravitation constant; $M_{\rm sun}$ and $M_{\rm moon}$ are the masses of Sun and Moon, respectively; and $\vec{r}_{\rm sun}$ and $\vec{r}_{\rm moon}$ are the distance from the Sun and Moon to Earth, respectively.

The total vector potential $\vec{V} = \vec{V}_{\text{sun}} + \vec{V}_{\text{sun}}$ for each day of Miller's data (4 days).

Using the unit vector in the direction determined by Miller's \vec{M} , the angle $\theta(day)$ between the \vec{V} and \vec{M} on each day is then calculated:

$$\theta(day) = \arccos\left(\frac{\vec{V} \bullet \vec{M}}{|\vec{V}||\vec{M}|}\right). \tag{1}$$

The four $\theta(day)$ values were then averaged to calculate the net angle θ . The result is $\theta = 91^{\circ} \pm 8^{\circ}$ with a confidence at 1σ .

3 Discussion and Conclusion

The result suggests that the measured effect requires $\nabla \rho \neq 0$. The observation tables in the experiments were held flat relative to Earth's gravity. Thus, Earths gravity was not included in the findings.

The STOE suggests the speed of waves in the plenum (gravity waves, also) is many orders of magnitude greater than the speed of light (van Flandern 1998). If a fluid has inertia, it should have viscosity. The successful simulation of diffraction of light included a term that represented the viscosity of matter in a fluid as proportional to the relative velocity (without turbulence). This term in the simulation had a very minor effect on the photons. This suggests the plenum viscosity has very small impact on heavenly bodies. In addition, the effect of the Source in spiral galaxies more than compensates for any friction loss experienced by the mass. Indeed, the rotation curves of spiral galaxies suggest matter is moving faster than the Keplerian model calculates. A possible effect to be noticed may occur in the cooling flow of elliptical galaxies.

The result is the divergence of the plenum caused by the Sun and Moon and the measured direction of the "ether wind" are at an angle of $91^{\circ} \pm 8^{\circ}$ with a confidence of 1σ . This suggests that these experiments are measuring the degree of tilt relative to the plenum divergence. That is, the measurement is not the changing light path that results in the real Lorentz matter contraction hypothesis, but rather the measurements are detecting the changing light speed and direction caused by the divergence of the plenum. The support for the Lorentz matter contraction hypothesis as a real contraction is removed.

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RESEARCH OF HEAT EXCHANGE PROCESSES AT LIQUIDS BOILING ON EXTENDED AND ROUGH SURFACES

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Boiling processes on extended and rough surfaces are getting ever more widespread for transfer of highly dense thermal flows in various fields of technology (predominantly in nuclear power engineering, metallurgy).

The idea of using a rib in boiling liquid lies in the fact that even at temperatures conforming to the film boiling the combined heat flux transferred by a rib remains on a high level due to heat transfer with heat conductivity to the areas of intensive heat transfer (close-to-critical fields of bubble and transient boiling).

Find below the results of experimental data for boiling of pure Freon-12 on horizontal ribbed tubes with various ribbing geometry (table 1).

In table 1 d_e – main diameter of tubes; D_H – external diameter of a rib; d_{BH} – internal diameter of tubes; S_p – pitch of a rib; α – rib angle; δ_{CP} – average rib thickness; F_H – full external surface of tubes; F_{BH} –internal surface of tubes; G – weight of 1 running meter of tubes; I – length of the experimental section.

Table 1

Tube	Type of	d_{o}	d_{BH}	D _H	S_p	α	δ_0	$\delta_{\rm r}$	δ_{CP}	F _H ,	F _{BH} ,	F _H / F	G/F _H	$1/m^2$
No.	tube	mm	mm	mm	mm		mm	mm	mm	m^2/l m	m ² /1 m	ВН		
1	thread	16.5	13.2	21	2	35	1.5	0.3	0.9	0.145	0.0145	3.5	9.5	0.4
2	with	17.55	12	24.475	1.413	-	0.85	0.85	0.85	0.39	0.0377	10.35	7.65	0.4
	straight													
	circular													
	fins													

An experimental unit was created, which makes it possible to make experiments in the range of thermal loads $q=500\text{-}20000~\text{W/m}^2$ (for smooth pipe $q=500\text{-}40000~\text{W/m}^2$ and boiling temperatures

 $t_0 = -30 + 20$ °C.

According to schedules, heat transfer coefficients during Freon-12 boiling are much higher on ribbed surface α_p than on smooth surface $\alpha_{\Gamma JI}$ (fig. 1-2).

Ratio $\alpha_p/\alpha_{\Gamma \Pi}$ for the studied tubes increases when heat flux is reduced and boiling temperature drops, it is especially high under conditions typical for operation of evaporators of refrigerators.

Heat transfer intensity increase during boiling on ribbed tubes is connected with peculiar conditions of origin, growth and bubbles detachment as compared with smooth ones.

Visual observations showed that that inception of bubbles occurs near the base of ribs. This is explained by the fact that in places of connection of ribs with the tube they are moistened worse, and therefore, density of the heat flux transferred from the given area is more important.

As it is shown in figure 1, tube No. 2, having the smallest distance between ribs, is most effective as compared with tube No. 1 at low temperatures of boiling. Its advantage becomes lower, when temperature of boiling rises. In this case heat transfer surface is steamed due to generation of a steam film near the base of ribs. On the basis of the aforesaid it may be concluded that tubes of evaporators operated on Freon-12 within the range of temperatures $t_0 = 0 + 30^{\circ}$ C should have the distance between ribs 0.3 - 0.5 mm, which is commensurable with the values of diameters of bubbles at departure under these conditions.

Application of porous metal coatings is the most effective and reliable method of heat transfer intensification during boiling.

Consider the experimental data received at the unit, where experimental specimens were made of stainless steel having parameters shown in table 2. Heat transfer during propane boiling was studied within the range of $q=0.1-100 \ kW/m^2$, temperatures from -10 to +40°C.

First evaporation centres occurred in upper rough pipe sections on smooth pipes with rough surface (specimens B and S) and on pipes with porous coating.

When thermal loading increases, the situation becomes similar to boiling on a polished pipe, however, heat transfer intensity is 2.5-3 times higher than on smooth pipes (fig. 3). Strong screening of the pipe surface with steam bubbles was observed in the field of q>20-30 kW/m², and heat transfer growth intensity reduced. Hysteresis of heat flux was strongly expressed.

Table 2

Specimen	A	В	S	5	6	7	2	3
No.								
δ, mm	smooth	smooth	smooth	0.1	0.15	0.3	0.2	0.1
	surface	surface	surface					
ε, %	abrasive	$R_z = 4 \mu m$	shot cleaning	12.31	12.73	12.83	12.59	12.74
	paper							
	$R_z = 1.3 \mu m$							

Coating thickness and its porosity had impact on heat transfer intensity. Maximal heat transfer was observed in specimen N_2 . 2 ($\delta = 0.2$ mm) in specimens having the same coating porosity. Coating thickness increase up to 0.3 mm resulted in heat transfer reduction. Coating porosity reduction from 12.8 to 4.3% considerably reduces heat transfer.

The conducted research has shown that application of porous metal coatings on the heat transfer surface makes it possible to considerably (by 3-5 times in the field of low thermal loads, q(8 kW/m² and by 2.5-3 times in the field of high, q>8kW/m²) increase heat transfer intensity during propane boiling on horizontal pipes. The best results were obtained for coatings having thickness about 0.2 mm and porosity about 12.5%.

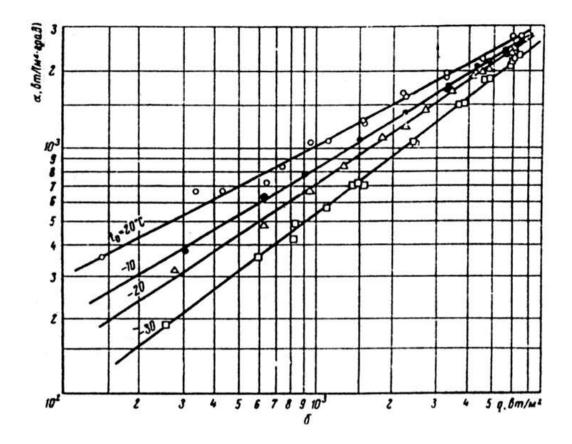


Fig.1. Dependence $\alpha = f(q)$ at Freon-12 boiling on ribbed tube $N \ge 2$

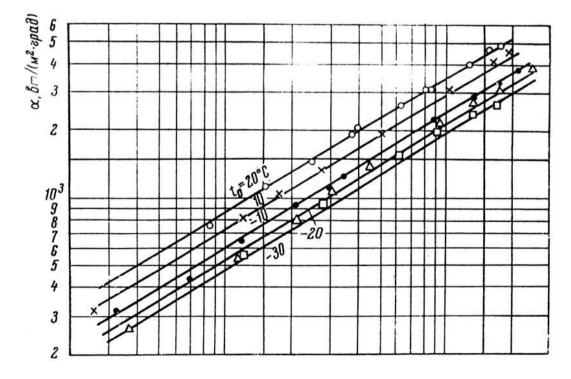


Fig.2. Dependence $\alpha = f(q)$ at Freon-12 boiling on ribbed tube N_2 . 1

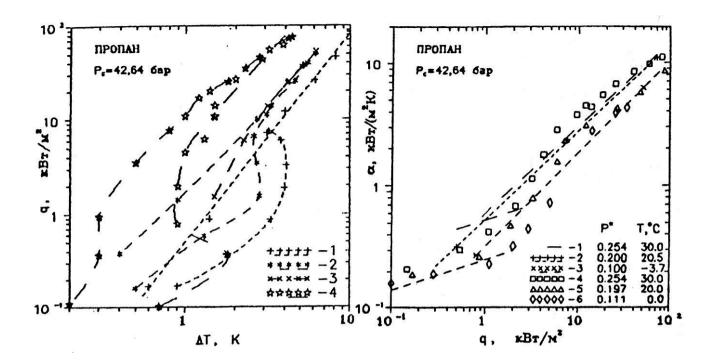


Fig. 3. On the left: typical curves of propane boiling on pipes with different external surface, T=293K: 1 –specimen A; 2-S; 3-B; 4 – N2. 7. On the right: comparison on results of propane boiling on smooth pipes: 1-[6]; 2, 3-[5]; 4-6 – specimen A

Why do Hydrogen and Helium Migrate from Some Planets and Smaller Objects?

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Abstract

This article analyzes the processes through measuring the material incoming from the outer space onto Earth, through migrating of hydrogen and helium from our atmosphere and from other objects and through inability to detect the radioactive effects on stars and objects with melted interiorities. Habitable periods on such objects are determined through the processes.

Keywords: Migration of hydrogen; Habitable zone; Constant growth of matter; the effects of rotation.

1. Introduction

The goal of the article is to give arguments, based on the existing data bases, that a constant growth of space objects, as well as their rotation and tidal forces, cause their warming up and radiation emissions, therefore making radioactive processes of fission and fusion – which are not detected on stars and other objects anyway – unnecessary. The article gives evidence of hydrogen and helium migrating towards the objects that have more mass and of temperature levels of stars being directly related to their chemical compositions and the objects in their orbits. The argumentation to support a habitable period will be derived from the natural processes of constant growth and matter gathering.

2. Why there is no radioactive emission, derived from the processes of fission and fusion, inside stars?

All data bases indicate that astronomic research (or, evidence) support the existence of a constant (monotonous), omnipresent, slow gathering of matter. The processes are "more accelerated" in such part of the Universe where there is more matter gathered (in the form of nebulae, molecular clouds, etc.) during a long period of time, but gathering takes place constantly in the whole volume of the Universe as well. The undisputed evidence of omnipresent gathering are millions of craters on the planets and smaller objects in our system. That process is further supported by the space material incoming daily from the outer space to our planet, with its quantity estimates ranging from 50 [1] to 300 [2] tons per day. Collision and merger of smaller and bigger objects, stars, galaxies [3] and the clusters of galaxies [4] is omnipresent in the whole volume of the Universe.

The processes related with an object's mass and rotation are realized inside the constant process of gathering. [5] Every object and system rotate around their respective axes, except the tidally locked objects. When an object has gathered a certain quantity of mass and if there is an adequate speed of rotation, it starts emitting radiation. That happens with the objects, which masses are smaller than the mass of Neptune (Neptune emits about 2,61 times more energy than it receives from the Sun), depending on the speed of rotation around their respective axes (HD 192310 c, HD 10180 g, OGLE-2005-BLG-169Lb, OGLE-2017-BLG-1434L b, BD-08 2823 b). When an object is influenced by the strong tidal forces, along with its mass and the rotation around the axis, the object melts its

interiority (Y brown dwarfs, Earth, Venus) at the masses that are smaller than those of Earth or Venus (Kepler-70b 0,44 M Earth, temperature 7.662°K, semi major axis 0,006 AU). When an object's rotation speed increases, it decreases the quantity of mass needed for the object to start emitting more radiation than it receives from its main star, i.e., to start creating its own internal processes that result with radiation. If rotation is slower, it takes more mass. It should never be neglected that the outer space has its own temperature, which is higher near a star, and it gets lower (except the thermal deviation; Sun 1 - 5,2 AU [6]).

Radiation and light are not the same thing. There is no light and it is very cold just outside the atmosphere of Sun (outside Earth ... or off the surface of an object that has no atmosphere) (the lowest temperature on Mercury is 80°K). There is no light where radiation is minimal (extremely weak). Light appears on the visible matter (nebulae, planets, ...) when it gets affected by radiation. The stronger the intensity of radiation waves, the more intensive the visible matter radiates.

Sun does not emit gamma radiation, except from sunspots [7], it emits X-radiation, ultraviolet, visible and infrared radiation and radio waves.

The strongest flashes (and gamma radiation within them) can barely be detected in the total of the Sun's radiation ("the solar constant"). The total of radiation emitted from the sunspots is only one tenth of the energy emitted by Sun per second. [8]

The radioactive processes of fission and fusion are supposed to be followed with enormous radioactive radiation and they should be taking place within Sun, in the core with a diameter, which is 20-25% of the Sun's radius (radius of Sun is 696.342 km). [9] Although gamma radiation, emitted from the sunspots, are relatively minor and hidden in the total of the Sun's radiation, they get detected by the instruments, nevertheless. However, these instruments seem to fail to detect radioactive radiation, supposedly emitted by the object, which diameter is about 300.000 km long. During the period of 4,6 billion of years (the officially recognized age of Sun) [9], the radioactive pollution would pollute a star, as there are no obstacles to prevent the dislocation of matter from the Sun's core to its surface to happen. In all examples of the process of warming up, a warmer fluid or plasma migrates from the warmer parts to the colder ones, in the process of equalizing temperatures. Independent of the statements about the core density, no element or compound is able to maintain its solid state at the temperatures that are many times higher than their boiling points (the forces of pressure in the Sun at the depth of 200.000 km are 0,2 g/m³ [10]). All hot elements and compounds, gaseous and liquid alike, migrate towards the surface, while the matter, which is cooled down, goes lower into the interiority of a star (the circular process of equalizing temperatures).

It is also necessary to accept the evidence, provided by astronomers, that stars generally are not radioactive, i.e., radioactive pollution is not detected on them, regardless of their type.

The existence of gamma radiation discharges, which are extremely rare events, can easily be explained with the processes that do not require radioactive pollution of stars. These discharges are related to the poles of fast-rotating stars and galaxies (quasars), and, to a much lesser extent, to the flashes of the stars' spots. The similarity of these two processes is obvious. A fast drift (change) of matter from these spots is similar to the influx of matter

into cyclones of fast-rotating stars, where a separation of elements takes place. The influx of a star into a cyclone of a quasar or another fast-rotating galaxy creates flashes of gamma (and all other types of) radiation. The discharge amounts are related to the speed of cyclone and the quantity of newly arrived matter to the eye of the cyclone.

Our Earth (also: Venus, Jupiter, Neptune) is a good example to prove that melted matter is not radioactive and the processes of warmer melted matter and gas being dislocated are omnipresent.

Quote: The forces of pressure, rotation and the forces of attraction create high temperatures, create and determine the systems' appearance, determine the size of radius, surface gravity, the force of magnetic field, chemical composition and the color of objects and a star. Larger objects disintegrate complex compounds and atoms into hydrogen and some helium, due to temperatures above the boiling point of elements and compounds. The rest (approximately 1-1,5%),

Sun photospheric composition (by mass): 0.77% oxygen; 0.29% carbon; Iron 0.16%; Neon 0.12%; Nitrogen 0.09%; 0.07% silicon; 0.05% magnesium; Sulfur 0.04%) are also less complex atoms. A sum total of an object's mass, the forces of attraction and the speeds of rotation determine the conditions when a small orbiting object turns into a star. The mass of an object and the speed of its rotation determine the limit when an independent object starts emitting radiation (i.e., starts radiating). [5] end quote

3. The migration of hydrogen and helium

When comparing the data from data bases about the chemical composition of the atmospheres (and surfaces) of different objects, it is impossible to ignore the specificity (regularity) that is related to the elements, existing in the atmosphere of an object.

The Sun and gaseous planets (gas giants) – as far as their higher layers, which are the ones that can be successfully measured, are concerned – are mostly made of hydrogen and helium (atmosphere by volume: Jupiter, $89\% \pm 2.0\%$ hydrogen (H₂ (molecular hydrogen), $10\% \pm 2.0\%$ helium (He); Saturn, $96.3 \pm 2.4\%$ hydrogen (H₂), $3.25 \pm 2.4\%$ helium (He); Uranus, $83 \pm 3\%$ hydrogen (H₂), $15 \pm 3\%$ helium (He); Neptune, $80\% \pm 3.2\%$ of hydrogen (H₂), $19\% \pm 3.2\%$ helium (He), Sun, He 24,85 % , H 73,46% (atomic hydrogen). The other objects have almost no hydrogen in their atmospheres and helium is registered only in traces (Titan H₂ 0,2%, Earth H₂ 0,53 ppm, Venus has no H₂ and in Mercury's atmosphere only in traces, Mars has no hydrogen, neither molecular nor in compounds nor on the surface, Ceres has no atmosphere, Pluto has no H₂. H₂ is also lacking on the other smaller objects (Moon, the moons of Jupiter, itd).

It is known that on Earth there are processes that create large quantities of hydrogen through hydrogen-based compounds: H₂O, CH₄, other hydrocarbons (oil, gas), NH₃ etc.). These processes also create large quantities of H₂ but it is almost lacking from the atmosphere (0,53 ppm). The existence of the large quantities of H₂ results in a proportional appearance of helium (9/1 H/He, which is approximately their average ratio for the whole Universe), but there is no helium in the atmosphere of Earth. There are ~1% of hydrogen and ~1,84% of helium appearing in the process of natural gas extraction [11]. Despite of large production of hydrogen and helium, and a constant release of these gases into the atmosphere as well, their share in the atmosphere remains unchanged. The loss of

hydrogen from the atmosphere of Earth is estimated to be 3 kg/s and the one of helium 50 g/s. [12]

It can be concluded from the existence of melted core of Earth, ever higher average temperatures and shortening the duration and extent of the ice ages [13] that the total factors, which influence the temperature, are constantly growing. There are no data to support the rotation acceleration of Earth (scientists are more inclined towards its deceleration). The same goes for the rotation of Sun, although geologists and astronomers believe that the influence of Sun is constantly increasing (Sun increases its light by 10% every billion of years) [14]. The increase of the pressure forces grows with the increase of mass, which is registered to be a material incoming from the outer space. In the process of the constant growth, it can be determined that the increase of the mass of Earth is significantly larger than its total material losses.

With regards to the distance of an orbiting object from its main object, the level of space temperature around such an object (~ minimal temperatures) and the rotation of the object, it can be concluded that hydrogen and helium are found in the atmospheres of the objects with a significant quantity of mass (the planets with impressive atmospheres and Sun). The distance from a main object does not stop the migration of hydrogen and helium to the direction of a main object or the closest object with a sufficient quantity of mass. It is concluded from the atmosphere compositions of internal planets and the satellites of gas giants. There are processes of hydrogen production on Titan (0,2% in its atmosphere) but it migrates towards Saturn. Smaller quantities of hydrogen-based compounds are registered in the atmosphere of Pluto (methane 0,25%, ethylene 0,0001%, acetylene 0,0003%, etc [15]) which confirms the existence of the process of creating hydrogen, but the mass of Pluto is insufficient to hold hydrogen and helium in its atmosphere, even though the distances from larger objects are very large and the space temperature is very low. Hydrogen and helium migrate towards the heavier objects, independent of the orbital distance, the level of temperature of such an object and the space around it and the rotation speed around its axis. In our system, the interstitial medium is almost pure vacuum.[16] It means that migrations do not go aimlessly into the space, but towards the heavier objects. It can be read from the chemical composition of the atmospheres of the largest planets that they successfully hold hydrogen and helium, independent of the influence of solar wind, the force of magnetic field and the level of temperature.

4. A habitable zone

To understand the process of life creation, one must understand the process of hydrogen migration, thermal deformations [6], the influence of space temperature on the atmosphere, structure and the rotation of an object [5].

Internal planets have no possibility to create water (in significant quantities) if they lack a melted core, very active geological processes and independent rotation around its axis, because hydrogen, created on the objects with the small quantity of mass, constantly migrates towards Sun. In our system, an independent rotation starts a bit outside the orbit of Venus. The appearance of a planet's independent rotation depends on the mass of Sun and that of the planet and the speed of rotation around the axis of the star. Mars is an equally sterile planet in the orbit of Earth, due to the lack of mass. In the orbit of Mars,

Earth would be a frozen object, due to the lack of mass and the lesser effect of the tidal forces (binary effect). Outside the region of thermal deformation (in our system, it is behind the asteroid belt), low temperatures do not support the appearance of oxygen, but support the appearance of hydrogen-based compounds, due to the difference in temperatures of space (< minimal temperatures of planets (the temperatures of space are approximate to the minimal temperatures of their distant satellites): Jupiter -108—161°C; Saturn -189°C; Uranus -197,2 to -216°C; Neptune -201 to -218°C ...) and the boiling point of hydrogen, -252,87°C (when talking about the oxygen compounds, there are only 0,0004% ± 0,0004% H₂O on Jupiter; Saturn, Uranus and Neptune have water only in traces; Titan lacks oxygen-based compounds; in the thin atmosphere of Pluto there is only 0,05 -0,075% CO (estimated in 2015. [17]) from the binary effect with its moon, Charon. The melting point of oxygen is at -218,79°C and the boiling point at -182,962°C. The temperatures on Jupiter (and its satellites) and Saturn with its satellites are above the boiling point of oxygen, which means all of oxygen would be in the atmosphere without a process to remove it from there and crystallize it on the surface, or it would be a part of compounds (mostly water, since hydrogen is the most represented element there and helium is inert). Traces or extremely small quantities of oxygen and its compounds in the area outside the thermal deformation are the indicator there are some minimal processes of oxygen appearance in this zone after all. One of them is SO₂ (its melting point is at -72 and its boiling point at -10°C) on the moon of Io from the tidal forces of Jupiter and Europa.

For life to appear in the thermal deformation zone, it takes a proper ratio of mass, the influence of tidal forces and the rotation of stars and planets.

An object needs to have more mass than Earth in the orbit of Mars for the conditions of melting down the interiority of the object to appear and for the geological processes to become very active. Although hydrogen would continue migrating towards Sun, a part of it would create compounds with oxygen, carbon, nitrogen, etc. That is, after all, a basic precondition to create life.

Habitable conditions are also possible for an independent object, placed in a space with a low quantity of matter; as a consequence, such an object would have a very slow rotation (these objects are classified as brown dwarfs). Under such conditions, the melting of the object's interiority is a result of the pressure forces (partially of the rotation, too) and a possible binary effect (Pluto – Charon). There are no processes of volatile elements migrating towards another object or aimlessly into space; all elements are held in the atmosphere and on the surface of the object. An object is habitable in the period before it becomes a star (while it still has a crust). (annex 1.)

There are data, which suggest that objects in very distant orbits may realize such levels of temperature that are comparable to those of stars and it can further be concluded that these objects are also habitable in the period when they still have a crust.

Conclusion

The migration of hydrogen and helium is directed towards the objects containing more mass. The increase of the Earth's mass through the material incoming from the outer space

is bigger than the total of all Earth's material losses. Every independent object and an object in the orbit, with an independent rotation around its axis, the object which is inside the region of thermal deformation, in some period of time is habitable. It is the period when such an object has a crust and the melted interiority, the consequences of which are intensive geological processes. An object's temperature is a result of the pressure forces, the object's rotation and tidal forces (binary effect). These inferences are derived from the measurements of stars, Earth and other objects, where there is no radioactivity that is supposed to be a product of the processes of fission and fusion, just as the following table state.

Annex 1.Planets vs stars (temperature and mass)

Plai	net	Mass of Jupiter	Temperature K	Distance AU
1.	<u>2M1207b</u>	4 (+6;-1)	1600 ± 100	40
2	GQ Lupi b	1-36 (<u>20</u>)	2650 ± 100	100
3	ROXs 42Bb	9	1800-2,600	157
4	HD 106906 b	11	1800	~650
5	CT Chamaeleontis b	10,5-17	2500	440
6	DH Tauri b	12	2750	<u>330</u>
7	HD 44627	13-14	1600-2400	275
8	2MASS J2126-8140	$13,3\pm1,7$	1800	6900 (> 4,500)
9	<u>1RXS 1609 b</u>	14	1800	330
10	UScoCTIO 108 b	14	2600	670
11	Oph 11 B	21	2478	243
12	<u>HIP 78530 b</u>	24	2800 ± 200	710 ± 60
Brov	wn Dwarf			
13	Teide 1	57 ± 15	2600 ± 150	
14	<u>2M J044144</u>	$19 \pm 3/9, 8 \pm 1, 8$	2100/1800	
15	OTS 44	11,5	1700-2300	
16	DENIS-P J1058.7-	55	1700-2000	
	1548			
Sta		Mass (Sun 1)		
17	R Cygni	Cool giant	2.200	
18	CW Leonis	0.7 - 0.9	2.200	
19	IK Tauri	1	2.100	
20	W Aquilae	1,04-3	1.800 (2250-	
	<u>*</u>		3175)	
21	T Cephei	1.5-1.8	2.400	
22	S Pegasi	1,8	2.107	
23	Chi Cygni	2,1+1,5-0,7	2.441-2.742	
24	R Leporis	2,5-5	<u>2.245</u> -2.290	
25	R Leonis Minoris	10,18	2.648	
26	S Cassiopeiae	loss at 3.5 x 10-6	1.800	
	-	MSun per year		
Tabl	e. Cold stars in relations	hin mass/radius Sun=	1). Planets at a great	distance from the

Table: Cold stars in relationship: mass/radius Sun=1). Planets at a great distance from the stars with high temperatures and different mass.

A few more examples cool Stars: RW Lmi 2.470°K; V Hya 2.160°K; II Lup 2.000°K; V Cyg 1.875°K; LL Pegasi 2.000°K; LP And 2.040°K; V384 Per 1.820°K; W Ori 2.625°K; S Aur 1.940°K; QZ Mus 2.200°K; AFGL 4202 2.200°K: V821 Her 2.200°K; V1417 Aql 2.000°K; S Cep 2.095°K; RV Cyg 2.675°K etc. Tables from my article (with minor modifications) [5]

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A Modern Reading of the 40 Principles of TIPS Using the Example of the Technology for Activation of Fuel Mixtures

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Abstract

The reader of this article is able to not only familiarize himself/herself with a range of actual versatile innovative inventions but also to be wrapped up in the principles of invention creation process and explore an issue of the scientific background lagging in terms of modern demands and approaches to invention

Key words: fuel, mixtures, invention, technology

Technology for activation of fuel mixtures

Various technologies and devices for achievement of the final goal that is reduction of the fuel consumption in the transport vehicle engines are known at present.

The technology offered for exerting impact on the dynamically moving fuel flow in the fuel pipeline includes several stages of deep hydrodynamic and aerodynamic influence on the fuel.

Conditions for operation of Bernoulli's principle in the pipeline are created to increase impact intensity and decrease or eliminate additional energy expenditures for impact, thus allowing to obtain highly-efficient fuel mixture with minimal energy expenditures at the final stage of aerodynamic impact and without any expenditures at the hydrodynamic impact stage and significantly increase efficiency of the combustion process and at the same time to decrease specific fuel consumption rate.

A device for implementation of the technology offered has two design variants. The first design is used for cases when the fuel has at least two different components (for instance, gasoline and water) or when the fuel has at least three different components (for instance, gasoline, ethanol and water). The second design variant is designated for cases when the fuel is consisted of just one component (for instance, gasoline).

The device of all designs includes a hydrodynamic mechanism for turbulence homogenization connected with the pump for delivery of fuel from the fuel tank and an aerodynamic foaming flow activator connected to a mini-compressor having a rotation drive from the kinematic branch circuit of the engine shaft and through a fuel pipeline with an outlet to the multiflame fuel spray nozzles integrated into the pipeline and connected functionally and by design with the help of hydromechanical and aeromechanical interface.

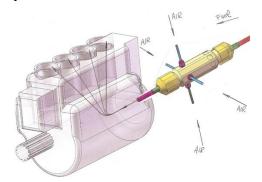


Fig. 1 – The Figure shows a 3D model of the engine with fuel activation device

The fuel is activated by means of homogenous mixing of liquid fuel with microscopic air bubbles. The mixing takes place in the pipeline during passing of liquid fuel from the low pressure fuel pump to the high pressure fuel pump. And the air is supplied from four sides to the device area where a depression zone is formed during fuel movement through coaxial channels of the device and in some cases vacuum is formed in this zone.

According to this mixing option, air bubble sizes do not exceed several micrometers and thickness of the external spherical membrane of each bubble does not exceed several micrometers, as well. After injection the air bubbles get broken and correspondingly the membranes get broken as well, thus significantly increasing dispersity of the fuel particles in the combustion chamber.

TIPS and AIPS

The Algorithm for Inventive Problem Solving (AIPS) is a step-wise program (sequence of actions) for detection and solution of discrepancies i.e. inventive problem solving (consisting of approximately 85 steps). AIPS includes the program itself:

- software supplied in the result of data collection;
- methods for control of psychological factors being an integral part of the creative thinking development (<u>CTD</u>) methods.

There are the other approaches helping an inventor to unlock his/her creative potential. Major part of these methods is <u>heuristic</u>. They all are based on the psychology and logics and neither of them qualify for being a scientific theory (as opposed to TIPS):

1. Trial-and-error method;

- 2. Brainstorming;
- 3. Morphological analysis;
- 4. Focal object method;
- 5. Test question method;

TIPS – Theory for Inventive Problem Solving.

Modern TIPS consists of several schools developing the conventional TIPS and adding new sections absent in the classical version.

Thoroughly developed a technological core of TIPS (methods, AIPS, substantial and field analysis) remains almost unchanged and the activity of modern schools is mainly aimed at rethinking, restructuring and promotion of TIPS that means it has rather philosophical and promotional than technological nature.

In this connection modern schools of TIPS frequently integrate and adapt digital technologies and the newly emerged due to them possibilities at all the stages of project development. It is important to note that nowadays TIPS is actively used in the field of advertising, business, art, early learning, etc. though initially it was designated for predominantly technical creativity.

Conventional TIPS is a common technical version. Multiple special-purpose versions of TIPS notable for their nomenclature and extent of data collection are required for practical use in the field of engineering.

A Soviet patent engineer, writer and scientist <u>Heinrich Altschuller</u> was convinced in possibility to reveal based on the predecessors' experience repeated methods of successful inventions and possibility to teach this technique all the interested and capable for learning.

A study of over 40 thousand author's certificates and patents was carried out and based on the patterns of technical systems and invention methods revealed, the Theory of Inventive Problem Solving (TIPS) was developed.

But at present, the task and methods for its solution are principally different, as in the system of such patterns and their interrelation, new composite materials, mobile applications and programmable controllers, control processors with artificial intelligence elements and smart engineering and technological solutions allowing to adapt new engineering and technological interrelations including programmable solutions have emerged despite the fact

that purely programmable solutions are not engineering ones and they are not correspondingly classified as inventions.

When an inventor faces an engineering problem for the first time and it is peculiarly characteristic to the start of any project, it is usually quite unstructured and does not contain any instructions for solution ways.

Besides, a startup company, as a rule, does not have any production experience and equipment to be used for even some experiments and tests.

Such form of a problem and such form for setting an initial task are called *an invention situation* in TIPS. It is main disadvantage is that the engineer has too many ways and methods for solution. It is quite labor-consuming and expensive to handle them all and the selection of the way at random leads to inefficient <u>trial-and-error method</u>.

Therefore, the first step on the way to an invention is to restate the situation in such a way as the statement itself cuts all the prospectless and inefficient ways for solution. And in this case we have another question what solutions are effective and what are not?

H. Altschuller supposed that the most effective solution to the problem is that is reached in itself but only due to the resources available. Thus, he arrived at the wording of <u>an ideal final result</u> (IFR): "Some element (X element) of the system or environment *itself* eliminates adverse effect keeping an ability to produce effective action".

Having obtained a tool for screening of inefficient solutions, the invention situation can be reformulated to a standard *mini task*: "according to IFR everything should remain unchanged but either harmful, unnecessary property should be eliminated or new, useful property should be formed". A key idea of the mini task is to avoid significant (and expensive) changes and first of all consider the simplest solutions.

It is commonly known that the TIPS makes out 3 types of discrepancies (ordered by level of the solution difficulty):

• an administrative discrepancy: "the system should be improved but I do not know how (unable or not entitled) to do this". This discrepancy is the simplest and can be eliminated by either improvement of additional materials or making/ revoking administrative decisions. In the modern world far too many discrepancies of administrative nature are those connected with the commercial conditions and criteria for implementation of the future invention taken as a technology basis of the innovative product;

- an engineering discrepancy: "improvement of one system parameter results in worsening of the other". The engineering discrepancy is the setting of an inventive problem itself. Transfer from the administrative discrepancy to the engineering one decreases dimension of the problem, narrows the field for solution search and allows going from the trial-and-error method to the algorithm for solution of the inventive problem that either offers using one or several standard engineering methods or (in case of challenging problems) reveals one or several physical discrepancies. At present, in the context of engineering discrepancies, it is necessary to see the impact of the commercial conditions for implementation of the innovative product exerted to them;
- a physical discrepancy: "in order to improve the system some definite part of it should be in various physical states at the same time that is impossible". Physical discrepancy is the most fundamental as an inventor faces the restrictions associated with the physical laws of nature. The inventor should use the physical effect guide and the table for their use to solve the problem.

The analysis of many thousands of inventions has allowed finding out that with all the variety of engineering discrepancies, most of them are solved by 40 main methods. The works on compiling of such method list was already started by H. S. Altschuller at the early stages of the Theory of Inventive Problem Solving establishment.

The system of methods used in TIPS includes both simple methods and the double ones correlating with them as integrated with program digital technologies used at all the stages of design, production and operation.

Simple methods allow solving engineering discrepancies. The most popular among the simple methods are 40 main methods described below.

Modern reading of the 40 principles of the TIPS

So let's get back to the topic of the Theory of Inventive Problem Solving and consider 40 known principles in terms of the use of methods and techniques inherent in and characteristic to the smart production, smart transport, smart design, etc.

- 1. Segmentation principle:
- to divide an object into independent segments;
- to make the object divisible;
- to increase the object segmentation degree.

In the modern machines and devices, it is almost impossible to fulfill the criterion for independence of the segments into which the object is recommended to be divided.

If take into account the fact that modern innovation objects are often an integrative combination of the device, system, program and method, it will be definitely clear that all the parts or components of the object are all more or less tied up in these elements.

If the logic is followed, then it turns out that in case complete autonomy and independence of the object components is to be reached, it is necessary to make each component compliant with the specified device, system, program and methods that, considering the requirements of patent law on indivisibility of the invention subject and knowing the design principle on pointlessness of repeating all the design, program, technological and algorithmic features discriminated in the process of the object segmentation in each of the segments, makes this method rather harmful than useful.

The methods of modern innovative design is a large-scale integration and segmentation principles shall be most likely transformed into the principle for selection of the autonomous functional components of the object for horizontal and vertical layout integration.

As there is no pure invention in the modern innovation process then at least one of the integration elements shall be the principle of commercial feasibility for horizontal integration and the principles of implementation versatility in the various technological categories not always at first logically interconnected for vertical integration.

The Theory of Inventive Problem Solving and the Algorithm for Inventive Problem Solving have been developed at the time and under conditions when in any case in the Soviet economic system there was no production of the versatile standardized structural and technological components.

This defines a principal difference of the modern machine design and the design, methods and engineering criteria existed at the time of the Theory of Inventive Problem Solving and the Algorithm for Inventive Problem Solving development.

First of all, new principles of machine design inherent in smart engineering solutions in the sphere of transport and transport vehicles shall be defined.

At present, the most significant components of this system of interconnected engineering solutions and the software products and mobile applications associated with them are in particular an integrative concept for the application of software products in the

technological cycle of basic engineering objects primarily inherent in transport vehicles such as the engines of all types, fuel technologies, environmental systems and control of their combinations in the real time mode.

- 2. Bracketing out principle:
- to separate an interfering part (an interfering property) from the object;
- to separate a single required part (required property).

The bracketing out is a function of computer simulation in the real time mode by using a mobile application integrated into the specified transportation system as well in the smart transportation systems.

The results of such simulation allow to significantly approximate the operation modes of transportation system and each transport vehicle included to the systems containing the artificial intelligence elements.

- 3. Local quality principle:
- to move from the homogenous object structure (or external environment, external impact) to the non-homogenous one;
- various parts of the object shall have (fulfill) various functions;
- each part of the object shall be under conditions the most favorable for its operation.

The most favorable operation mode in such system is defined based on the results of computer simulation of the optimal model for smart transportation system and can be transformed for each transport vehicle included in this system.

- 4. Asymmetry principle:
- to move from a symmetrical object form to the asymmetrical one;
- to increase the asymmetry level, if the object is asymmetrical.

This principle allows keeping independence of each transport vehicle included in the smart transportation system and ensures maximally possible level for integration of each transport vehicle into the common tasks and characteristics of the smart transportation system.

- 5. Combining principle:
- to combine homogenous or designated for related operations objects;
- to combine the operations homogenous or related as to execution time.

All the components of smart transportation system form an aggregate of smart transport vehicles and each of them separately and all together controlled or regulated by a mobile application can unite the transport vehicles executing the homogenous operations or separate the transport vehicles or their groups executing non-homogenous operations but the homogeneity or non-homogeneity level is defined by means of the mobile application.

- 6. Versatility principle:
- the object executes several different functions and owning to this there is no necessity in the other objects.

In this case an issue of appropriateness of the object fulfilling the functions inherent in the other objects becomes obvious and relevant. This tool can be used only by one operator and in case it is necessary to simultaneously use a new function of the device, then the other tool shall be available meaning that this device is commercially of no use and will not be supported by the investors.

This principle has quite different format in the complex smart systems where a combining function is first of all executed by a certain mobile application solving complex tasks for control, monitoring and measurement and at the same time containing all the necessary provisional information for prompt computer simulation in the real time mode.

- 7. "Stacking doll" principle:
- one of the objects is located inside the other that in its turn is placed inside the third object,
 etc.;
- one object is brought through the cavities in the other object.

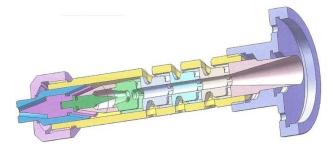


Fig. 2 – Actual structure of the fuel mixture activation device in the carburetor engines built according to the "stacking doll" principle

Design principles are similar to the general principles for design of the device for activation of fuel mixtures and characterized with the use of an external device body as a gauge defining the position of each internal element.

All the internal cavities and channels of one component are connected with the same channels and cavities of related components and the structural elements of vortex generators

are connected both geometrically and functionally with the suction openings of external body meaning that there are all the signs of a coaxial "stacking doll" and in this particular case determining quality and efficiency of the whole device as applied to the system conditions of higher level in its turn providing for compliance with the requirements of smart transportation systems.

- 8. Counterweight principle:
- to compensate the object weight by means of combining with the other object of elevating force;
- to compensate the object weight by means of interaction with the environment (due to aerodynamic and hydrodynamic forces).

In this case under the modern conditions there can be variants connected with the potential use of composite material range of various specific weights.

Today's methods and programs of machine engineering allow real time simulation of the weight of any part of the structure with analysis of related structural element reaction to the weight characteristics of the interacting parts and their mutual influence on the adjacent units and joints.

- 9. Preliminary counteraction principle:
- to strain the object in advance and the strains shall be opposite to the inadmissible or unfavorable operating strains;
- if it is necessary to do some action according to the task provision, counteraction shall be done in advance.

When this principle was defined and classified for the first time, there were no capabilities for computer simulation that often resulted in execution of many actions and operations that nowadays in many cases are automatically done at the design stage by means of actual standard computer engineering programs.

With the help of these programs actions and engineering variants are optimized during design and the most optimal variant with regard to all the circumstances and initial technical requirements is included in the project.

- 10. Preliminary action principles:
- to do the required action in advance (to the fullest extent or partially);

• to place the objects in advance in such a way as they can be operated without time expenditures for delivery and from the most convenient point.

As the activation device does not include movable parts, its operating cycle is particularly execution of the actions without time expenditures for positioning of the device components.

11. "A foreseen danger" principle:

 to compensate relatively low reliability of the object with the emergency facilities prepared in advance.

In terms of modern relations between investors and inventors it is clear that the low reliability of the object will definitely and for sure prevent this object from being marketed.

Compensations indeed do not compensate anything and only reliable and absolutely operative structure defines actual commercial success of the object.

12. Principle of equipotentiality:

• To change the conditions of operation so that the object is neither lifted up nor lowered.

The absence of movable parts in the device construction confirms complete correspondence to that principle.

13. Principle of "vice versa":

- To perform the opposite action instead of the action imposed by the conditions of the task;
- To design the traveling part of the object or outer medium immovable, and the immovable one as traveling;
- To turn the object upside down, to turn it inside out.

This is the principle implemented in the device for activating composite fuels, everything is vice versa – activation takes place without using movable parts.

14. Principle of spherocity:

- To proceed from straightforward parts to curvilinear ones, from flat surfaces to spherical ones,
 from cube-shaped and parallelepiped-shaped parts to spherical constructions;
- To use rollers, balls, spirals;
- To proceed from rectilinear motion to rotational motion, to use the centrifugal force.

Using only cylindrical parts as an equivalent of the principle.

15. Principle of responsiveness:

- Characteristics of the object (or outer medium) must be changed to be optimal at every stage of operation;
- To divide the object into parts able to travel relative to each other;
- If the object is immovable as a whole, to make it movable, traveling.

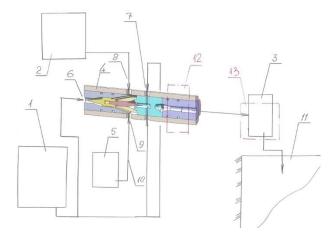


Fig. 3 - provides the combined system of innovative composite fuels preparation at gas stations having the elements of dynamic influence on the composite fuel components as a visual guide of the variants of implementation of the principle of responsiveness in combined infrastructure systems of the smart transport systems (1 - tank with basic fuel; 2 - tank with auxiliary fuel or with composite fuel component; 3 - storage tank with homogenization systems; 4 - fuel composition preparation device; 5 - tank with additional composite fuel component or with water for emulsion preparation; 6 - fuel intake to the device; 7 - fuel intakes to the activating device at homogenization; 8 - fuel component intake; 9 - fuel component intake; 10 - fuel component supply line; 11 - gas station fuel tank; 12 - control area; 13 - control area

16. Principle of partial or excessive action:

• If 100% of the required effect is difficult to be attained, "a bit less" or "a bit more" must be attained, and the task will become substantially easier.

Actually, for the new innovative product implementing the new process or principle, the definition of the scale of an actual effect is one of the important analytical tasks, which practically can be solved by means of multiple computer models and their modifications that take into account all aspects of the new design.

Computer modeling in such case must take into account all results of preliminary and control tests of the innovative product as well as the results of qualification tests of analogue products.

17. Principle of transition into another dimension:

- Difficulties related to traveling (or placing) of the object by the line are eliminated, if the object gets an opportunity to travel in two dimensions (i.e. on the surface). Actually, the tasks related to traveling (or moving) of the object in one plane are eliminated when going to the 3 dimension space;
- To use a multi-storied construction of objects instead of the one-storied one;
- To tilt the object or to place it sidewise;
- To use the opposite side of the area;
- To use optical flows falling on the neighboring area or opposite side of the area in question.

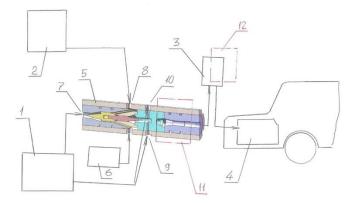


Fig. 4 - provides the combined preparation system at gas stations and transfer of composite fuels or emulsions to the vehicle or another transport means tank or homogenization of fuel before supplying it to the transport means tank (1 - tank with basic fuel; 2 - tank with fuel component; 3 - storage tank before supplying the fuel or composite fuel to the vehicle or another transport means tank; 4 - fuel tank or a vehicle or another transport means; 5 - composite fuel activation device or composite fuel online homogenization device or fuel emulsion preparation device; 6 - tank with auxiliary composite fuel component; 7 - fuel intake to the device; 8 - intake of composite fuel components to the device; 9 - intake of composite fuel components to the device; 11 - control area; 12 - control area

18. Usage of mechanical oscillations:

- To take the object to the oscillating motion;
- To increase its frequency (up to ultrasonic), if it exists;
- To use the resonance frequency;
- To use piezoelectric vibrators instead of mechanical ones;
- To use ultrasonic oscillations in combination with electromagnetic fields.

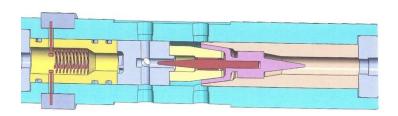


Fig. 5 - provides the device in section for activating the composite fuel with installed resonance sensor in the exit section adjusted for the certain system of parameters allowing to monitor the proportions between the composite fuel components or fuel emulsion

19. Principle of intermittent action:

- To proceed from continuous operation to intermittent (impulse) operation;
- To change the action periodicity, if it is performed;
- To use pauses among impulses for another action.

The composite fuel activation device to the same extent can operate in any regime, because there are no movable parts in it, and it is always ready for action (this is fully related to the following two principles).

20. Principle of efficiency continuity:

• To perform operation continuously (all object parts must continuously operate under full load).

21. Principle of breakthrough:

• To perform the process or its separate stages (for example, harmful or dangerous) at a high speed.

22. Principle of converting harm into benefit:

- To use harmful factors (in particular, harmful effect of the medium) in order to obtain a positive effect;
- To eliminate a harmful factor by means of combining with other harmful factors;
- To enhance a harmful factor to the extent becoming not harmful.

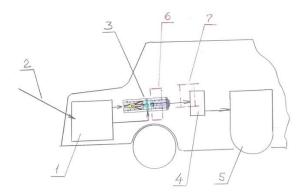


Fig. 6 - provides the process of the fundamental change in the arrangement of the transport means allowing to convert the harm of the necessity to increase the number of units and parts into benefit - the transformation of the transport means in full concordance with the principles of the smart transport means (1 - fuel tank; 2 - intake of fuel composition into fuel tank; 3 - composite fuel complex activation device; 4 - high pressure pump; 5 - transport means engine)

23. Principle of feedback:

- To introduce the feedback;
- To change the feedback, if it exists.

The stated principle nowadays is expressly implemented in control systems, including the smart transport means. Besides, it relates to the following three principles.

24. Principle of mediator:

- To use an intermediate object transmitting or transferring the action;
- To connect temporary another (easily removable) object to the object.

25. Principle of self-service:

- The object must be self-serviced performing auxiliary and repair operations;
- To use waste (energy, material).

26. Principle of copying:

- To use simplified and cheap copies instead of the inaccessible, complex, expensive, inconvenient or fragile object;
- To substitute the object or the system of objects by their optical copies (illustrations). To use the scale conversion (increasing or decreasing of a copy);
- To proceed to infrared and ultraviolet copies, if the visible optical copies are used.

27. Cheap fragility instead of expensive durability

• To substitute an expensive object by a set of cheap objects renouncing some properties (for example, durability).

Long terms of the test operation of fuel and composite fuel activation devices demonstrated that the chosen variant of the design and the determining specifications of the device provide high durability with the optimal cost. This certainly depends upon the factor of the specifications, that determines the possibility of implementation of the production cycle for the device without using traveling parts.

28. Change of the mechanical system:

- To substitute the mechanical scheme by an optical, acoustic or odor one;
- To use electric, magnetic or electromagnetic fields for interaction with the object;
- To proceed from immovable fields to traveling ones, from fixed to changing-with-time ones, from nonstructural to those possessing a definite structure;
- To use the fields combined with ferromagnetic particles.

It is a common knowledge that the most reliable objects are those having no traveling parts. Since one of the factors of the specifications of the fuel and component fuel activation device is absence of traveling parts, the principles of designing, manufacturing and applying of such devices can be adopted as corresponding to the general principle - substitution of the mechanical system.

29. Usage of pneumatic constructions and hydraulic constructions:

- To use gaseous and liquid parts of the object instead of solid ones;
- To use electric, magnetic or electromagnetic fields for interaction with the object: inflatable and hydroinflatable, inflatable cushion, hydrostatic and hydroreactive.

30. Usage of flexible shells and thin films:

- To use flexible shells and thin films instead of regular constructions;
- To isolate the object from the outer medium using flexible shells and thin films.

Thin-filmed micro-assemblies in the microelectronics can be given as an example, using which the response speed got substantially increased, and such increase in the response speed allowed proceeding to smart systems, including smart transport means and smart transport systems, in particular.

31. Usage of porous materials:

- To design the object porous or to use additional porous elements (inserts, covering, etc.);
- To fill in the pores with a substance in advance, if the object is already designed as porous.

The appearance of composite materials, including those with the pseudo-porous structure allowed at the designing stage to clearly forecast and model the role of porosity or pseudo-porosity in creating the specifications and outcome parameters of the designed device or product.

The appearance of new products possessing unusual properties and characteristics is very frequently explained by the use of porous or pseudo-porous materials and components.

32. Principle of changing the coloration:

- To change the coloration of the object or outer medium;
- To change the degree of transparency of the object or outer medium.

Contemporary computer designing methods allow selecting the variants of coloration and changing the degree of transparency during designing or computer modeling.

33. Principle of homogeneity:

• The objects interacting with the object in question must be designed from the same material (or close to it by properties).

Homogenization of composite fuels or other equivalent materials practically corresponds to the principle of homogeneity.

34. Principle of rejection and regeneration of parts:

- A part of the object, having fulfilled its purpose or became unnecessary, must be rejected (dissolved, evaporated, etc.) or modified immediately during the work;
- Consumable parts of the object must be renovated immediately during the work.

The methods and systems of aerodynamic and hydrodynamic mixture, dynamic preparation of the emulsion and online homogenization are uncharacteristic for this principle, because its basis concludes in the principle of absence of any processes of regeneration and rejection of exhausted parts.

A profound analytical search must be performed for the stated new principles to be qualified in terms of reemulsification and reblending.

35. Change of physical and chemical parameters of the object:

- To change the aggregate condition of the object;
- To change the concentration or consistency;
- To change the flexibility rate;
- To change the temperature.

This principle in different variants is used in composite fuel and fuel emulsion preparation processes and implemented in homogenization processes.

This principle can be studied wider, if taking into account the fact that the formation of fuel capsules creates new properties for the composite fuel, and the formation of the composite fuel with simultaneous foaming by means of the foam generator creates the compressible liquid effect instead of incompressible liquid.

The same principle is directly related to the following principles of using phase transitions and thermal expansion.

36. Usage of phase transition:

• To use the phenomena appearing at phase transitions, for example, the change in volume, heat generation or absorption, etc.

37. Usage of thermal expansion:

- To use thermal expansion (or compression) of materials;
- To use several materials with various thermal expansion coefficients.

38. Usage of strong oxidants:

- To substitute regular air by enriched air;
- To substitute enriched air by oxygen;
- To use ozonized oxygen;
- To substitute ozonized oxygen (or ionized) by ozone.

This principle is applicable only to the chemical and electrochemical treatment processes. It can also be used in transport systems where the fuel is activated in foam generators.

39. Usage of inert medium:

- To substitute the regular medium by the inert one;
- To conduct the process in vacuum.

Taking into account today's innovative practice, this principle is implemented in the framework of standard computer modeling, and with the correct posing of questions and ideal terms of reference for the corresponding models of the innovative system, the process can be performed much more exactly. And upon its fulfillment it is rather real to obtain the information allowing to open or to predict new variants and new directions with a higher level of novelty and efficiency.

40. Usage of composition materials:

• To proceed from homogeneous materials to composition ones.

As known, the substitution of one material is not admitted by another invention. The composition material in itself is the topic or object of the original invention, but it happens very frequently when a regular construction material is substituted by a composite changing the properties and possibilities of the product so that the product with composites become an absolutely new, unknown before product, possessing new functions and unusual specifications. Certainly, in order to make such substitution the scope of work must be done comparable with designing an absolutely new technology or a fundamentally new product. And this can be done only by the companies having powerful research units.

Not only composite construction materials but also consumables, for example, fuel in the form of emulsion or mixture are used in smart transport systems as composition materials.

The homogenized fuel with the equivalent viscosity level both in the flow center in the pipeline and in the flow periphery in the pipeline is also the material possessing the composite properties.

Hence, the intake to the device fuel system for online homogenization or online emulsion preparation device, or online fuel blend preparation device are the equivalent of using composite materials, and provide the corresponding effect in the conditions of smart transport.

In the course of situation analysis, we are going back to the TIPS and AIPS tools created for overcoming such type and such complexity of contradiction complexes.

In the Theory of Inventive Problem Solving there is a special software designed for solving complex tasks. The software breaks down the solving process into 50 subsequent steps. The software is provided with special steps helping to overcome the psychological inertia. The software possesses rich data support too. The program is called AIPS, Algorithm for Inventive Problem Solving.

Initially, the "invention technique" was imagined as a code of rules, for example: "To solve the task means to find and to overcome a technical contradiction" or "the stronger solving of the task, the lower consumptions in material, energy, space, time". Several standard techniques were included into the "invention technique": splitting, combining, inverting, changing the aggregate state, substituting the mechanical scheme by the chemical one, etc.

The information about the work of great inventors, proper inventive practice, materials on the engineering history served as the main source for revealing the rules and techniques.

By the middle of the 50ies the persuasion had been developed and strengthened that the inventors, even the sturdy ones, operated using the ineffective trial and error method and, therefore, the ambition to reveal and to use the "secrets of art" is prospectless.

A fundamentally new "invention technique" must be developed which is based on using the objective laws of development of engineering systems. These laws can be revealed by the systematic analysis of large files of patent information.

By the end of the 50ies of the previous century it was clear that: the "invention technique" must include not only AIPS, but also the section about the laws of development of engineering systems and ever-expanding information fund. The "invention technique" had to give way to the "science of invention". This idea encountered strong resistance. The "invention technique" was treated as something more or less tolerable: ultimately, those are helpful recommendations based on studying the inventors' experience, not obviously overthrowing the "sacred" notions. The "science of invention" targeted the "sacred" negating the exceptionalism of great inventors, touched upon traditional beliefs on unapprehensiveness of the creative process. The "invention technique" helped to "get lighted up" - the "science of invention" negated all old fashion technology, negated the inborn aptitudes.

The software becomes harder and more definite through the years. In the course of the analysis the operative area and conflicting requirements, lodged to it, are defined (prototype of FP). The RVS operator was introduced. The TP elimination table was finalized, the list of approaches was renewed (40 from the beginning, 50 after that). Instructions for making steps, notes, examples were introduced. The main operators form the system - the interrelation between the steps got strengthened, a new part appeared - preliminary evaluation of the found idea.

The situation has drastically changed through the years with the appearance of the processor equipment making it necessary to treat the reliability notion absolutely in a different way, because the rigid, mechanical conception of reliability gave way to more flexible one - by virtue of more clear management process and working cycle while using analytical and control opportunities of the processor equipment.

The following main directions in the evolutionary development of TIPS and AIPS can be distinguished in terms of synthesis and modification of comprehensive engineering solutions, where the integrative reliability of the system is one of the fundamental base values:

- 1. Traditional for the evolution of AIPS general increase in the algorithmization degree due to more complete and more profound usage of objective laws of development of engineering systems and processor systems.
- 2. Substantial strengthening of the "bridge" between the physical contradiction and the method of solving it, including the one based on using composite materials and the latest developments in digital technology.
- 3. Enhancing the information fund, strengthening the interactions between AIPS and standards, including the combination with operative production standards and environmental regulations, which requirements and limitations contradict the traditional economic regulations.
- 4. The advantageous development of the second half of AIPS (development and use of the found idea) into a standalone algorithm having the components of "Program, system and method" or "Apparatus, device, system, program and associated method".
- 5. Designing of a new initial part (or a separate algorithm) for discovering new composition and integrative tasks.
- 6. Enhancing the general educational function. AIPS must develop the skills of strong, comprehensive thinking more actively.
- 7. Gradual increase of the universalism in the course of creating the composition model of the apparatus or process closely related to the software and processor equipment.

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The Practical Side of IoT Implementation in Smart Cities Artyom Kravchenko

Abstract

Smart cities are an innovative concept of sustainable urban design that gains popularity across the globe. Its core premise is the provision of smart educational, utility, traffic, waste and resource management, and health services with an advanced level of connectivity. The Internet of Things (IoT) is employed as the technology powering that connectivity and ensuring that the smart services operate based on intelligent data collection, sharing, and analysis. However, while IoT is actively explored today and exhibits numerous tech achievements, there are still pressing challenges for its practical implementation in the smart city architectures. This article explores the unresolved challenges such as impaired device interoperability, vulnerability of IoT grids to hacks, data security and privacy issues, as well as the slow transition of governments to smart services. The study also offers insights into the future directions of IoT research and development to empower smart city creation.

Keywords: internet of things, smart cities, smart city grids, interoperability, smart city architectures

1. INTRODUCTION

Smart cities are taking shape day by day to respond to the citizens' needs for enhanced liveability, safety, revivification, and sustainability. They represent hubs of smart services in the areas of education, government, mobility, housing, an e-health; these services are strongly interconnected mainly due to the application of Internet of Things (IoT) (Hassanien, Elhoseny, Ahmed, & Singh, 2018). IoT is an innovative technological concept presupposing a high level of connectivity and enhanced information sharing possibilities within the smart grid, as well as the increasing degree of smart devices' autonomy to take specific actions on their owners' behalf (Adekumbi, 2018). Due to these features, IoT is highly relevant to the principles of smart cities' design, and IoT tech is now actively integrated into the urban strategies. Smart city designers envision IoT-enabled applications as empowering the street and traffic lights, enabling smart transportation, parking, maintenance, waste management, air quality, crime reduction, architecture, sustainable energy usage and distribution, traffic flow, and addressing the pedestrian and bicycle needs (Meyers, 2017). However, IoT, as any other technology, poses certain issues and challenges in the process of practical implementation. This article explores the practicalities of IoT integration in smart cities and proposes solutions to streamline that integration more smoothly and effectively in the upcoming Smart City projects.

2. IOT-BASED SOLUTIONS FOR SMART CITY GRIDS

IoT has become a critical component of the smart city architecture right from its inception, which is explained by the fact that smart cities are first of all oriented at providing highly customized services to users. For instance, smart homes are enabled by effective data collection by electronic home appliances shared and stored in a smart home environment. Similarly, smart cities aim at advanced energy and electricity use, provision of a convenient and economically sustainable infrastructure for the social well-being, which becomes possible with IoT application (Hammi, Khatoun, Zeadally, Fayad, & Khouhi, 2017). At present, such sectors as energy and electricity, architecture and construction, automation, transportation, security, and healthcare are the key aspects unified by IoT in smart cities. All of them can be empowered by IoT to deliver service quality and connectivity of a brand-new level, so the near future of smart city design deals specifically with the implementation of IoT in these spheres (Park et al., 2018).

In connection with such IoT objectives, the IoT platforms in smart cities have to be scalable due to the huge data storage requirements and, flexible to collect masses of miscellaneous data, and able to address the Big Data domain challenges. Thus, their key features include:

- Interoperability (enabling of communication and data transmission among heterogeneous IoT devices);
- Real-time data collection from a large number of sensors (fostering the provision of actual information about events or behaviors in the smart city);
- Near-real-time data transmission (implying the asynchronous communication enabled by the publish/subscribe communication paradigm);
- A microservice approach (presupposing the development of a single application as a suite of small services each running its own process and communicating with lightweight mechanisms);
- Awareness to end-users (IoT facilitates the interaction between users and things);
- Exposure of web services and API via open and standard data formats (fostering the design and development of novel services) (Patti & Acquaviva, 2016).

While IoT has already become a buzzword in the area of innovative urban design, there is still little understanding of the exact types of communication technologies expected to enable it. To date, the most suitable tech solutions for IoT in SCs include the power line

communication (PLC) technology, ZigBee, WiMAX, third- to fifth-generation (3G-5G) cellular networks, the global system for mobile communication (GSM), general packet radio service (GPRS), and some more (Ejaz & Anpalagan, 2018). Since IoT is a modular approach, it is based on sensor integration (RFID, IR, GPS, laser scanners) into everyday objects to connect them over the Internet through specific protocols for information exchange, communication, and intelligent recognition, tracking, monitoring, and management (Saha, Auddy, Chatterjee, Pal, et al., 2017).

It is also noteworthy that for many, IoT is limited to connectivity of devices via the web, but the true implementation of IoT in smart cities is much broader. It suggests building a service based around the connectivity proposed to plug in with cloud integration and Big Data. IoT includes standards for connectivity, software, and even the clouds where the data is stored and processed. However, the implementation of IoT requires different control points and a variety of controlled parameters (Information Resources Management Association, 2018). Thus, the IoT technical architectures for smart cities require seamless integration of sensors in a mutual communication environment to create horizontal multiservice infrastructures and host all the city's systems. Such a task is challenging in many ways, and despite the technological advances of the recent years, the IoT sector still faces some pressing challenges as to the practical side of enabling smart cities.

3. CHALLENGES ON THE WAY TO AN IOT-ENABLED CITY

Since IoT is essentially about data retrieval, sharing, and storage, its critical weakness is vulnerability to hacks. Most connections in smart cities are enabled with RFID, which are highly vulnerable to all kind of hacking activities such as malware (a variety of harmful, dangerous computer programs such as worms, trojans, and viruses), ransomware (attacks on users with the purpose of money bribing), adware (attacks conducted to open ground for entering malware), etc. IoT grids also possess zero-day vulnerabilities (first-time system errors), side channels, phishing and spoofing, as well as RFID-related risks such as passive data monitoring, user identity scanning, and jamming of the RFID frequencies (Hassanien et al., 2018). Therefore, it is imperative to develop hack-proof IoT ecosystems to speed up the realization of smart city projects and to boost their development at a larger scale.

Another challenge inherent in the IoT architecture for smart cities is interoperability. While open standards have been in place for the past couple of decades, users still utilize interoperable

systems rarely, which complicates scaling and a smart city's ecosystem creation. Various communication standards complicate the process of various processes' automation, as well as hinder the optimization, management, and reduction of accommodated energy. Even in the e-health sector of smart city services, the need to track medical team and facilities as well as healthcare-IT convergence services are imperative for the effective smart city functioning, which is hard due to the impaired interoperability (Park et al., 2018).

Security issues also play a role in the IoT implementation in smart cities because IoT systems are assumed to consist of very large heterogeneous networks of both constrained and unconstrained devices continuously operating without any power source. Because of these peculiarities, IoT architectures resist the implementation of strong security and privacy mechanisms. Major security challenges associated with IoT in smart cities include:

- Heterogeneity of communication technologies, software, hardware, and capabilities of multiple devices integrated into a single IoT grid;
- the constrained nature of numerous IoT devices possessing limited resources;
- the need to come up with scalable solutions to enable smooth IoT functioning at large-scale deployments;
- the need for energy-effective optimization in the use of IoT-empowering hardware and software (Angelakis, Tragos, Poehls, Kapovits, & Bassi, 2016).

Given these technical limitations inherent in the elements of an IoT grid, their creators face the challenge of balancing the system's agility and making it secure and privacy-preserving. According to the 2015 report of Hewlett Packard Enterprise, 90% of devices included in the IoT systems collect personal information, 70% of them use unencrypted traffic, and 60% of them have weak credentials (Rawlinson, 2015). Thus, no matter how secure the core IoT aspects are, the inherent weaknesses of peripheral devices may undermine the fundamental principles of user privacy and data protection.

Finally, it is noteworthy that while a transition from traditional cities to smart cities may be accelerated with the fast pace of technological development and disruptive technology's introduction in the global market, the path towards smart governments is much slower. Most often, governmental institutions and the public sector are the slowest to adopt new technologies, so the transition creates an unavoidable bottleneck on the way to establishing new smart city projects (Alenezi & Manuel, 2017). The modern-day imperative for the

governments is to become more user-driven, responsive, flexible, and technology-oriented. Only after completing that evolutionary process, local and national governments may integrate into smart cities and complement them with innovative, technologically advanced governance.

infrastructures and host all the city's systems. Such a task is challenging in many ways, and despite the technological advances of the recent years, the IoT sector still faces some pressing challenges as to the practical side of enabling smart cities.

4. FUTURE DIRECTIONS OF IOT DEVELOPMENT IN SMART CITIES

IoT is already part and parcel of most smart city projects, powering the smart city technologies and infrastructure. Nevertheless, IoT also offers numerous additional business opportunities and possesses an enormous growth potential which may contribute to more efficient smart city development. To achieve greater progress with IoT in smart cities, recommendations for the future focus of developers include:

- prioritizing sensor-oriented technologies for wireless networking;
- developing technologies for network services;
- creating innovative energy-related technologies to power the energy load management technology, smart building energy management, and smart home cloud server technology.

Besides these recommendations for the industrial sector of IoT, technology needs for intelligent optimization, scheduling, and control of devices included in the IoT grids are pressing. Thus, the future of IoT development in smart cities is impossible without innovative solutions for intelligent collection, categorization, and analysis of Big data. Finally, IoT service provision may become more effective if employed via compatible integrated applications to ensure customization and end-user convenience (Park et al., 2018). Besides facilitating the development of smart city projects, numerous market players can embrace a promising business opportunity and increase their revenue by providing innovative solutions that the IoT requires.

5. CONCLUSION

As one can see, IoT is a highly promising aspect of smart city design without which the concept of connectivity and advanced end-user customization is simply unattainable. Thus, IoT is actively developed today, with new technologies emerging every day, to empower smart cities and make them sustainable socially, economically, and environmentally. Rapid

technological advancement definitely contributes to the realization of smart city goals and visions, but the practical side of IoT implementation is still challenging in many ways. For instance, the implementation of most smart city projects is impossible without addressing such challenges as intelligent collection and analysis of big data, low interoperability, vulnerability of IoT grids to a wide range of attacks, and the lower speed of the public sector's technological advancement. Security still remains a pressing concern among smart city designers, so making IoT architecture work as it should presupposes the identification of IoT elements and assets requiring protection and development of system requirements for risk mitigation. The use of powerful encryption mechanisms and digital safety education for end users are also recommended steps to minimize the risks of hacking, data fraud, and data privacy breaches across the IoT grids in smart cities. Once these pressing issues are addressed and all aspects of smart city development are harmonized, smart city projects are projected to become more attainable and realistic.

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Workforce Training and Management Challenges in the Contemporary Smart Manufacturing (SM)

Artyom Kravchenko

Abstract

Smart manufacturing (SM) is gaining momentum as a new technological advancement of the manufacturing sector. It offers numerous advantages such as productivity, quality, and performance enhancements. A smooth transition of today's manufacturers to SM is impossible without adequately trained and skilled workforce, while the current lack of tech talent and the massive retirement of Baby Boomers cause additional workforce-related challenges in the industry. This article offers strategies for manufacturing businesses to hire and retain proper talent, to determine the right technological specialties they require, and to develop new effective means of workforce management in the context of a smart factory.

Keywords: smart manufacturing, cyber-physical systems, smart factory, automation, robotics, workforce management, data-based sensors

The 21st-century manufacturing is facing new challenges such as frequent product innovations, a shift from mass production to mass customization, as well as continuous technology integration. All these changes are enabled by the adoption of smart manufacturing (SM) – a new manufacturing model based on real-time data and technology use. SM is based on the intensified, pervasive application of networked information-based technologies throughout the manufacturing and supply chain enterprise [1]. It offers incredible innovation possibilities for the entire manufacturing system, the untapped potential of product quality improvement, productivity increases, energy efficiency improvement, and safer manufacturing spaces.

Despite the growing popularity of SM, the concept is still poorly understood. According to a comprehensive definition by the National Institute of Standards and Technology (NIST), SM represents "fully-integrated, collaborative manufacturing systems that respond in real time to meet changing demands and conditions in the factory, in the supply network, and in customer needs" [2]. The SLMC definition portrayed SM as an "ability to solve existing and future problems via an open infrastructure that allows solutions to be implemented at the speed of business while creating advantaged value" [2]. In other words, SM is a new stage of manufacturing evolution enabled by the technological connectivity, advanced access to data contextualization, and integration of data from multiple open and vendor applications.

SM incorporates the state-of-the-art technology such as cyber-physical production systems, internet of things, automation, big data analytics, and cloud computing into traditional

manufacturing. These technologies are new for the manufacturing sector, and their effective implementation involves a resourceful, adequately trained workforce [3]. Counter to numerous fears about technology ousting people from their workplaces, smart factories offer an added employment potential. The evolution of manufacturing from a manual and static industry towards self-organizing, dynamic, and demand-driven involves key dimensions — equipment, workforce, materials and supply chain, business processes, platform, and facility and environment. The manufacturing workforce thus plays an essential role in progressing the sector from a simple break-fix system of human involvement to the introduction of specialized robots, creation of the augmented workforce, adaptive simple collaborative robots, and a further evolution toward the human-machine collaborative workforce [4]. With gradual adoption of SM in industrial facilities worldwide, technology-based manufacturing jobs are expected to experience a rise in demand, thus creating new positions in direct manufacturing and non-manufacturing sectors.

The value of SM integration in any country's manufacturing sector is enormous. IT-enabled smart factories and supply networks are regarded as better responding to national interests and strategic imperatives. SM is also seen as able to revitalize the industrial sector by boosting global competitiveness and exports, provision of sustainable jobs, and radically improved performance combined with manufacturing innovation [1]. However, flawless operation of smart factories is possible only under the condition of broad-based involvement of skilled and appropriately trained workforce, which becomes a contemporary challenge for SM advancement.

Smart Workforce for Smart Manufacturing

While manufacturing progresses at an unprecedented pace today due to high-tech innovations and advanced industrial solutions, the weakest point of industrial progress is access to skilled labor force capable of operating smart factories and keeping pace with the rapidly evolving manufacturing technology [5]. Today's innovation is talent-driven and depends on the quality and availability of skilled labor such as researchers, analysts, and engineers. This criterion determines the business's manufacturing competitiveness, so companies embracing SM now face the challenge of finding and hiring employees with the right skillset.

Unfortunately, the epoch of fast technological progress in the industrial sector has overlapped with another major trend of demographic nature. At present, large populations of

baby boomers are retiring, while workforce requirements of the manufacturing sector grow. As a result, the gap between available and required skilled labor widens and leaves thousands of manufacturing jobs (e.g., machining, mechatronics, engineering, robotics, automation) unfilled. Thus, while most companies invest large budgets into modern equipment and operations for the sake of keeping their competitive position neglect a vital component of business success – hiring, training, and retaining smart workforce able to operate a smart factory.

SM is now seen as one of promising, scalable solutions to securing the necessary educated, trained workforce in manufacturing. The combination of quick technology adoption, massive retirements, and reducing interest of young people in manufacturing specialties poses serious challenges to the advancement of this sector, while SM brings about beneficial changes to the manufacturing labor force. As soon as a company starts implementing SM, its employees face the need to acquire additional training to maximize the new technology's potential and ROI [6]. These educational interventions may be further applied for developing the flexible dynamic workforce of the future. Together with better-trained current workforce, companies utilizing SM may attract new employees – the representatives of the next generation. Techsavvy Millennials are fully competent in web tools and innovative technology, able to utilize big data, and keeping pace with the rapidly evolving manufacturing technology. Such a combination of educating the present workforce and attracting the young talent pool is a winning strategy for any business serious about adopting SM in the long run.

The ways in which SM is going to impact the current manufacturing workforce include:

- Workforce augmentation with collaborative robots;
- Greater implementation of mobile technology to give workers on the factory floor access to real-time data analytics and vital alerts;
- Integration of advanced analytic and AI solutions for better decision-making;
- Transition from subtractive to additive manufacturing by means of 3D printing;
- Provision of access to critical information, interactive work instructions, and standard operating procedures with the help of wearables and immersive technology [7].

These methods are already applied at innovative SM enterprises such as those of Ford, HP, Volkswagen, and many other industrial giants. As a result of such innovations, factory

employees become augmented by digital systems, work side by side with robots, and wear tracking bodysuits and additional wearables for efficient real-time interaction with production and data processing systems. Being able to function productively in such data-centric manufacturing settings requires a specific skillset from current and new employees, so strategies for developing smart workforce gain significance as a forward-looking investment into manufacturing agility.

Strategies for Developing Smart Workforce

While in the 1950s, over one-third of the U.S. private-sector workforce was employed in manufacturing, while in 2012, the percentage barely reached 10% [8]. This trend follows a broader historical process of transitioning from low-skilled, manual labor to higher-value-added production relying on highly-skilled, tech-savvy labor force. The manufacturing sector has evolved dramatically within the past half of a century due to acceleration of industrial cycles and pressure for technology adoption. Requisite manufacturing skills have been changing together with the sector and now include:

- Sense-making (an ability to deal with complex situations);
- Digital literacy;
- Novel, adaptive thinking;
- Social intelligence and strong communication skills;
- Computational thinking;
- Design mindset;
- Cross-cultural competency;
- Ability to collaborate virtually;
- Cognitive load management;
- Ability to work across multiple disciplines [8].

Possessing of these skills suggests the ability of modern manufacturing employees to navigate through a high-tech, information-loaded, quick, and multidimensional industrial framework. However, under the conditions of severe lack of tech-savvy manufacturing workforce, forward-looking manufacturers need to invest time and effort into educating and nurturing talent in-house. The greatest problems manufacturing entities now experience include finding experienced employees, upskilling the current workforce, and onboarding new employees [5].

These business pressures may be solved with workforce development strategies that help to close the skills gap effectively. Some of the most realistic solutions include developing a strong onboarding process and creating a formal in-house training program. Companies may also encourage continuous education and upskill trainers to help the company sustain a highly skilled workforce in the conditions of fast innovation. Another helpful solution is to establish smart training initiatives by partnering with local educational establishments and national training providers to give graduates on-the-job training and apprenticeships. Such collaborative schemes are likely to provide valuable competency-based learning to graduates, thus helping them to acquire real-world skills and get focused educational content for completing on-the-job requirements [5].

As one can see, manufacturing enterprises' transition to SM causes serious changes for the workforce. Some roles of employees may face realignment to support new processes and capabilities (e.g., virtual and augmented reality, data visualization), while other roles may become obsolete, replaced by robotics, process automation, and AI. All these changes have to be properly planned and managed because a motivated, skilled workforce is instrumental for the SM integration success [6].

SM Workforce Management

As manufacturing progresses towards a more high-tech, interconnected workplace, so do the workforce management strategies. The process of making the SM workforce more resourceful is indispensably connected with training employees and providing them with timely and effective assistance in real time. These objectives may be accomplished by means of worker activity-related data capturing with a variety of sensors and actuators, also enabled with the SM functionality. Data derived from such sensors and processed with advanced analytical systems may provide valuable workforce information such as location, configuration, motion, actions, etc. [3].

The most promising technology to be used for workforce management at smart factories is radio frequency identification (RFID). RFID sensors are expected to provide accurate data on entity identification, location, and tracking. Another option considered for smart factories is the use of vision-based sensors; with their help, worker activities in the working environment can be accurately captured for further analysis. Wearable sensors also possess a huge potential in terms of sensing and monitoring workers in smart manufacturing;

accelerometers enable measurements of acceleration and directions, gyroscopes can provide data on angular velocities, while electromyographers measure muscle tension changes [9]. However, the latter method is criticized for creating physical inconvenience and trouble for workers during the performance of work activities.

Conclusion

As the presented evidence suggests, SM is a viable innovative solution for invigorating the present-day manufacturing sector with new technology, new workforce, and new approaches. Due to the deeper integration of tech advancements into manufacturing operations, manufacturing recovers the interest of young generation in employment in this area and achieves greater performance, product quality, and competitiveness. Moreover, counter to the commonplace fears and criticisms about technological progress ousting people from jobs and leaving large populations unemployed, the transition to SM promises additional job positions. This proves to be true only for low-skilled, manual jobs, which are indeed giving way to robotics and automation. However, the demand for higher-order technical skills and knowledge such as engineering, robotics, big data analytics, and related specialties, is expected to rise exponentially soon.

Smart manufacturing is the matter of the present, not of the distant future. Thus, it is imperative for businesses to develop proactive steps to hire, train, and retain smart workforce able to operate their smart factories and move their business forward. By using the strategies mentioned in this article and investing in people alongside with technology, manufacturers may anticipate and avoid the talent gap at their facilities to embrace the SM concept in full and take advantage of the improved productivity, production capacity, product quality, and ROI that it offers.

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How Large Businesses Convert Volatility in Emerging Markets into Opportunity

Artyom Kravchenko

Abstract

In fact, the rapid pace of change and unpredictability in volatile markets make it harder for any company to plan and commit on top line as well as bottom line figures. However, in case with international companies, once volume and profit forecasts are submitted to headquarters, it has to be delivered upon HQ's expectations, otherwise the creditability of local management might be seriously doubted. As a result, the question "What shall we do today in order to deliver tomorrow even if a storm arises?" is on top of the agenda among business leaders in emerging markets. Based on my experience, I suggest 7 strategies that, when implemented properly, may help consumer product goods companies to be better prepared for uncertainties and capture growing opportunities in the world's most dynamic economies. These strategies are by no means comprehensive and everything I share here I had a chance to execute either by leading the entire project or contributing into one

1. Strengthen portfolio via down-market brands.

In the parts of the world where buying power of consumers is constantly decreasing due to growing inflation, companies need to have a balanced portfolio in order to win in a down trading ecosystem. In my experience, I witnessed how quickly consumers are able to switch from premium brands to low-tier ones leaving smaller chances for superior products to succeed. Therefore, to convert a threat into opportunity, launch of a down-market brand can be a solution. Firstly, having a down-market brand in the portfolio, the company protects its market share by capturing its existing customers who have started to move down due to personal budget constraints. Secondly, it allows to target a different customer type that was out of radar before, thus generating extra sales. Selling more volume leads to higher market share; high market share means bigger scale, cost advantages, greater market power and larger cash flow.

Indeed, to have a down-market brand in the portfolio is necessary but that alone isn't sufficient. Stephen Wunker in his article "5 Ways to Reach Down-Market Consumers Without Harming Your Brand" mentioned that marketers and financial managers should work together to develop the right marketing mix for a newly introduced offer [2]. The brand should be properly distinguished from core product line in terms of pricing, promotion, distribution and merchandising. In fact, placing differently priced offerings next to each other on the same shelf creates confusion among shoppers and pushes them to choose the brand which stays in the middle. One way to avoid this is by selling premium and low-tier brands in separate trade channels or at least merchandise them differently.

2. Optimize portfolio to eliminate gaps and embrace opportunities.

While down-market brands improves company's sales and market share during times when people are stretched in budget, when consumer confidence increases premium and super premium offers will be keys to high profitability margins. Therefore, when building a portfolio strategy, it is important to keep in mind that any crisis is temporarily and eventually consumers' affordability will improve, creating demand for aspirational brands. Then the question arises: "How to build the balanced portfolio that embraces opportunity?" A good start is to analyze existing brand board in order to detect gaps and missing prospects. "Does the current product line satisfies needs of target consumer segments?" "Does it provide offer for growing segment?" "Does the assortment look overlapping?" "Does the portfolio clearly communicate value of each brand to customers?" - all these questions would apparently evolve when the company decides to increase the portfolio's value by making strategic decisions on the restructuring, acquisition, divesture or launch of brands.

Exhibit 1 shows how companies, based on McKinsey's analysis in the article "Making Brand Portfolios Work", can restructure their brand portfolios in different ways, which are often interconnected – if one brand is repositioned, another can be extended into a new category [3]. The ultimate goal is to enhance the portfolio by positioning brands distinctively, eliminating inefficiencies (e.g. overlapping) and monetizing potential growing opportunity.

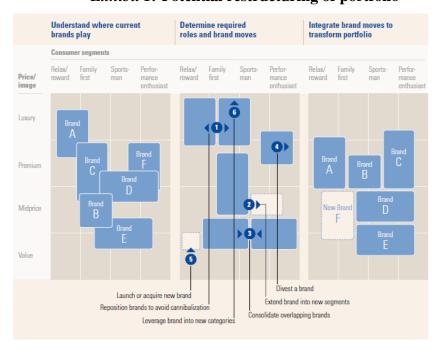


Exhibit 1: Potential restructuring of portfolio

Setting the portfolio strategy is never easy – it requires resources, is costly and risky. However, in dynamic markets, where economic environment and consumers' needs changes rapidly, companies have to put brand-portfolio management in perspective in order to be a step ahead of the competition.

3. Drive pricing momentum wisely.

Based on my experience I know that during economic crisis consumption patterns significantly change. Particularly, people start to consume less, switch to store brands and become very responsive to discounts, special offers and promotions. As a result, decline in demand make large companies decrease volume forecast what negatively affect their revenue. In this case, the power of pricing comes into play, compensating decline in sales and delivering top line numbers. However, development and execution of effective pricing programs, that will generate positive returns, requires a deep understanding of buying behavior of consumers, particularly in emerging markets. For instance, in developing countries people tend to shop frequently at open-air market stands or small neighborhood grocery stores while their peers from developed markets enjoy superior customer service at modern trade [1].

If executives decide to drive pricing aggressively, than a sharp increase in prices would shock consumers making them switch from global brands to store brands or local ones, sacrificing quality for saving a family budget. Therefore, the question arises: "How to drive pricing during recession with minimum hurt for consumers?" The answer is – via bridging plans.

Bridging plans are sets of activities developed to transit consumers smoothly from one price point to another. Those activities may contain one to many actions depending on company's capabilities and market environment. One of the simplest in terms of execution is gradual pricing. For example, a company has lost 20% of sales due to 20% decline in volume and wants to restore the sales via pricing. In order to do so, with all things being equal, it has to increase prices by 25% (1/0.8-1) which is a significant jump and may lead to further reduction of volume. Alternatively, immediate price up of 25% can be divided into 3 or 4 steps – 10% increase at first followed by 5%, 5% and 3% increase respectively. In fact, gradual pricing builds effective communication with consumers, because it allows to monitor how demand reacts on new price points, learn from real-life experience and make timely corrections if needed; while in case with immediate pricing the cost to revoke the decision can be very high.

In addition to gradual pricing, investment into temporary promotions is a good solution to retain loyal customers. For instance, "Buy four get one for free" or "Special discount on bulk sizes" – all these allow households to build long-term stock at discount staying loyal to a brand.

4. Hedge foreign exchange risk to minimize pressure on profitability.

Since 2008 many global companies are facing the fact that it is a particularly tricky time to do business in emerging markets due to currencies' exchange rates volatility. In fact, a series of events – credit crisis, falling oil prices, geopolitical tensions and reduction of foreign investments into developing economies – all these led to significant devaluation of local currencies putting a pressure on international companies' profits. For instance, Russian ruble in Sept 2008 was trading at ~25.5 per dollar; ten years later, in Sept. 2018, it was trading at 67 rubles per dollar meaning that in order to report the same revenue in dollars in Sept. 2018 as in 2008 it requires to collect 2.6times more rubles than a decade ago [4]. Therefore, proactive FX hedging is vitally necessary to avoid sizable transactional and translational losses in income statement.

First of all, reduction of expenses in foreign currency helps to decrease transactional losses. For example, an international company does business in Russia consequently it collects revenue in rubbles but its' expenses aren't necessarily all in local currency – suppliers of materials, advertising agencies, key business partners and etc. – some of them might ask to pay them for service performed in hard currency (e.g US dollar). In this case, having contract obligations with partners in USD, the company exposes itself to inescapable losses when the ruble decreases in value. Therefore, to avoid transactional losses, a global producer should exploit its negotiation skills to minimize expenses in hard currency. Those negotiations can be tough so the management has to be ready for pushbacks. I remember it took us a while to assess the bargaining power of suppliers before we could make a progress in negotiations and respectively hedge FX risk.

Another tool to manage currency risk is to use FX forward contracts that allow to purchase or sell currency at predetermined exchange rate and at a certain date in the future. The major advantage of this option is predictability, which means a company will be able to build a precise forecast thus protect itself from ups or downs in exchange market. However, "forwards" are financial instruments that have to be monitored and managed very careful; therefore it requires specific expertise and skills. Moreover, if a spot exchange rate changes unfavorably

versus forward rate the company will incur losses and in this case the hedging via forward contracts would hurt not help. Nevertheless, existing instability on FX market make it critical for companies to proactively build capabilities that are strong enough to stand the test of volatility.

5. Take contingency planning seriously and keep it up-to-date.

What if your biggest customer goes bankrupt and stops paying you tomorrow? What if your distributor stops operations today because of XYZ reasons? What if...? – these are questions to think about because there are millions of negative events that might happen at any time, especially the high risk of failures during the recession. Therefore, business leaders have to be proactively prepared for unknowns and, when undesirable situation occurs, protect the business from catastrophic consequences. To do so, companies should develop Business Contingency Plan (BCP); a course of actions that the organization would take if an unexpected negative event happens. Ideally, BCP should contain a list of all potential threats that can undermine the organization's reputation, financial health or ability to stay in business, providing specific instructions on how to combat those threats when a crisis hits.

For global companies BCP is high priority and management pay a lot of attention to keep it relevant and updated all the time. Specifically, it is vitally important to have a solid BCP if you operate in unstable markets where political, economic and social environment changes very fast and consequences of those changes may hurt day-to-day business activities. For example, I know a case when a distributor, which was the biggest customer, suddenly stopped its operations meaning that the producer urgently had to find solutions on how to revive sales. In this case, the senior executives referred to BCP and followed the guidelines that recommended switching from outsourced to in-house distribution until a new partner (distributor) could be found. Hence, using corporate cars and available human resources the company could build its own product delivery capabilities thus could manage the temporarily crisis.

Unfortunately, based on my observations small and medium firms underestimate the importance of contingency planning – they either keep it for the sake of having it in folders or don't have it at all. My personal position is that BCP serves the role of a life jacket for business – it can stay in the emergency cabinet forever or when an accident happens can save the enterprise. You may never use it but is necessary to have and keep up-to-date.

6. Prepare a list of choices before you have to make them.

Sometimes, due to the recession, the pressure on profitability can be very strong and management has to make tough choices in order to achieve financial goals of the company. If cost-cutting programs are inevitable it is better to proactively analyze the budgets and decide which expenditures bring insignificant value to the business.

In my career, I had a chance to lead cost optimization projects where I precisely analyzed investments into marketing programs, estimated effectiveness of those and provided recommendations to management regarding which activities contribute to business's objectives and which ones don't. I only focused on brand and trade expenditures because these were the biggest expenses in overall marketing budget. The analysis showed that the company spends money on two types of activities: 1. Ad-hoc projects that require onetime investment; 2. Ongoing promotions that require constant cash outflow within the year. If the first were cascaded from HQ as "must have", effectiveness of ongoing promotions could be easily challenged. As a result, I found out that some incentives pushed volume very well, others highly contributed to profitability margins, a few did both – increased profit and units sold – but several of them delivered neither profitability nor volume. Having this analysis, the team could decide whether it is better to stop doing ineffective marketing campaigns and re-invest funds into more promising opportunities; or release these budgets to increase net earnings. In any case, we achieved a flexibility that we could leverage for resource allocation purposes to improve business metrics.

7. Drive ownership culture in the organization from the top to bottom.

When every single employee wakes up every morning and asks himself "How can I improve the business performance of the company I'm working for?" then any crisis shouldn't be an issue at all. When a person treats company's assets as his own and makes decisions in the best interest of business, he demonstrates high ownership and entrepreneurial mindset that eventually brings tangible benefits for the organization in the long run. Therefore, the goal is to build a sustainable ecosystem where, regardless of seniority, every employee constantly looks for ideas to eliminate inefficiencies in the value chain, save money for the company, and, eventually, strengthen the business. The only way that top managers can integrate the ownership culture into company's DNA is by leading by example. It is wrong to ask your team not to do things that you're doing or vice versa. For instance, I worked in the culture where top managers,

for business trips, flew with economy class and stayed at friend's houses instead of hotels. They didn't have to do it, but they were willing to save budgets in order to reinvest them for returns. As a result, every person in the organization was led by example, and eventually, cost savings initiatives have become part of a daily routine. Only by cascading the culture from top to bottom are the senior managers able to motivate their teams to do the right things for business; but, first, they have to become role models.

Conclusion.

If I were asked: "Share your experience about working as commercial professional in developing markets", I would immediately respond: "To work in emerging markets is similar to living in a rainforest – I never know when the next storm is, how long it will last and what negative consequences it may cause. However, if I proactively build a strong shelter and equip myself with tools, I can minimize risks, protect my family and convert temporarily rainy conditions into opportunity to grow a fruitful harvest afterwards. Therefore, it is all about finding the prospects in turbulence and being agile in constantly changing environment". During my career and life in Central Asia, I faced serious economic and social challenges that affected the business of the company and its people to one extent or another. For example, we, as a multifunctional team, spent plenty of sleepless nights managing the following crises: ~20% devaluation of local currency overnight in Kazakhstan (in February 2014), with continuous depreciation of currency's value hereinafter and sharp change in consumption patterns due to high inflation (average consumer prices inflation rate in Kazakhstan rose from 6.7% in 2015 to 14.6% in 2016) [5]. Nevertheless, under strong leadership and supervision of senior executives, our team had to develop the strategy that can attack evolving challenges, corresponds to new market conditions and opens doors for when dark clouds disappear.

Large companies constantly face uncertainties in developing countries and there is no a single recipe on how to overcome headwinds. Challenges vary significantly and always arise at the wrong time. To enable the business to compete in increasingly fast-paced markets you should take an incremental approach to the development of your crisis management capabilities.

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Theoretical and Practical Aspects of Arms Trafficking

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Abstract

The article deals with general analysis of the modern state of ensuring rights of Ukrainian citizens by law enforcement authorities in the sphere of firearms turnover and questions of establishment, perspectives of development The Firearms Act of Ukraine. There are deep social, economic and political transformations in Ukraine nowadays. It is necessary to declare, that progressive processes of construction of the legal democratic state, except the positive ones, have unavoidable adverse effects. So, the number of persons and refugees who have no means of subsistence and constant residences has increased. Accordingly number of crimes has increased, the activity of law enforcement structures have become lower, and they have no means to provide complete protection for private, municipal, state ownership, the rights of the person, as the freedom, honor and dignity of an individual from illegal acts.

Key words: The Firearms Act, firearms turnover, the registration and accounting of firearms.

Introduction In part 2 the article 27 of The Constitution of Ukraine states that "everyone has the right to protect his life and health, and a life and health of other people from illegal infringement" [4]. The constitutional norm has found an embodiment in other branches of the law. Actually, in the article 36 "Necessary defense" The Criminal Code of Ukraine directly states that there is a real opportunity of using this institute with application of the firearms by a person [5]. So, one of the ways of protection of the above-stated human rights is the right of a person to be an owner, carrier and user of firearms.

To be an owner of firearms one person naturally conflicts with the right of life and health of other individuals, because it determines a potential opportunity of using firearms against other individuals. There are many scientists who devoted their works to these questions. Among native scientists are: P.D. Bilenchuk, A.V. Kofanov, O.F. Suljava, Ya.Yu. Kondratev, A.I. Kaplunov, D.A. Koretskyj, V.V. Nazarov, V.I. Antipov, O.I. Rements', L.M. Kononenko, A.S. Matsko, I.V. Bojko, O.M. Pidzharenko, C.O. Nevskij etc.

Strengthening of law is one of the most important functions of the state, which is connected with a wide range of social, economic, political and organizational activities.

Combating the illicit trafficking of firearms has a special place in the warning of crime by law enforcement, because it is characterized by double prevention: in addition to stopping the illegal weapon, it prevents serious consequences that may arise as a result of its unlawful use.

Unfortunately, the number of crimes related to the usage of firearms increases. According to the statistics of the Ministry of Internal Affairs of Ukraine, during the year of 05.2019 410 crimes with firearms involved were committed (including murder (and attempts) – 100), while in 2018 – 311 (including murder (and attempted) – 84) and in 2017 – 311 (including murder (and attempted) – 75). Thus equipment of modern criminals with firearms has brightly expressed the tendency to increase on a background of different international, general social tensions, and also insufficient legitimate appeal of weapons in general [8, 9].

In particular, according to the above statistics, staff of Internal Affairs Bodies seized 3080 firearms (including smooth – 314, rifled – 1402, other firearms – 1364) during

05.2019, while in 2018 – 2974 (including smooth – 313, rifled – 1402, other firearms – 1385). So, as we see, the dynamics leaves much to be desired [8, 9].

In general, the accounting departments of licensing system Ministry of Interior Affairs of Ukraine has more than 1 841 objects with the weapon, which is stored and used 59 570 firearms and more than 1 650 other objects of the licensing system. In addition, there are approximately 699 756 holders of hunting firearms, and about 810 995 firearms in use [2]. Of course, controlling all these weapons requires a system of tools, techniques and methods developed and improved in all areas of criminology and criminalistics which are based on studying the investigating and expert practice. These types of practical activities are fixed in legislation. There are many laws that complement each other. But with them there is a certain range of problem questions, such as trafficking of some types of firearms, air weapons and devices for shooting bullets, filled with rubber or similar characteristics missiles of non-lethal action, etc. First of all the most actual and problem question is that for 28 years Ukraine has adopted a very important normative act – The Firearms Act, which regulates turnover of firearms between civil people and satisfies all necessity of the particular statutory objectives.

Legislative control of the ownership and usage of firearms in independent Ukraine began with the adoption of Decree "On ownership of certain types of property" on 17 June 1992, and Annex number 2 to this Decree, which contained a special order of acquisition of property rights to citizens of certain types of property by the Supreme Council. On October 12, 1992 the Cabinet of Ministers of Ukraine approved the Regulations on the permit system, which is directly involved in the control firearms turnover in Ukraine and is located in the Ministry of Internal Affairs of Ukraine [1, c. 11]. Officially, the legal procedure fixing the trafficking of firearms in Ukraine was completed on August 21, 1998, Order of the Ministry of Ukraine № 622 approved the "Regulations on the order of production, acquisition, storage, transportation and usage of firearms, air and cold weapons, devices of domestic production for shooting bullets, filled with rubber or similar characteristics missiles of non-lethal action, and cartridges and ammunition for the weapons and explosive materials".

This instruction has defined:

1) the task of the Interior to implement the permit system;

- 2) order permitting the acquisition, storage, transportation and use of weapons;
- 3) control for facilities of licensing system;
- 4) a detailed procedure for the acquisition, storage, security, transportation and use of weapons and military supplies.

Nowadays short-barreled firearms are completely forbidden for the civil. Citizens can buy firearms only for hunting. The barrel of such firearms must not be smaller than 450 mm long, and the total length must not be smaller than 800 mm [7].

The short historical analysis of appearing, development and formation of smooth-bore fire-arms in the world allows to pass to us to definition of concept and its classification on fighting, those of special purpose and the hunting smooth-bore fire-arms.

The fighting smooth-bore fire-arms (FSBW) is the weapon with smooth trunks in which kinetic energy of combustion of gunpowder for the ejection of an individual or plural shell which is on arms in armed forces of many countries of the world (the USA, Italy, France, Germany) is used and are specially intended for the decision of fighting and operatively-office problems in the process of which live force of the opponent is destroyed. Thus the elements which attack the opponent are case-shot (usual lead, steel - plated), special arrow-like elements (which initial speed about 800 m/s), bullets. The fighting smooth-bore fire-arms (FSBW) are characterised by following tactic-specifications:

- 1) the length of a trunk is less than 500 mm (there are exceptions), weapon total length in position for shooting less than 800 mm;
 - 2) trunk drilling the cylinder (0,00 mm);
 - 3) more than 4 cartridges in the shop;
 - 4) special fighting supplies;
 - 5) length of a cartridge chamber 70, 76, 82, 89 mm;
 - 6) presence of a complicated butt, a standard butt;
 - 7) rifle front sight and dioptrical sight;
- 8) presence of adaptations for fastening of a laser sight, the device of night vision, a lamp-lighter;
 - 9) calibre 10, 12, 20, .410
 - 10) quantity of trunks 1;
 - 11) presence of special markings;

- 12) initial speed of flight of a shell to 820 m/s;
- 13) presence of modular systems, a bayonet, the device of low-noise shooting, the fire extinguisher, bore jack;
- 14) possibility of firing by turns. Unlike fighting the smooth-bore fire-arms of a special purpose are the weapon intended for conducting of special operations and the solution of operatively-service problems in the process of which live force of the opponent is wounded (not mortally).

It is not on arms in Armed forces, and is applied in police, militia, safety public service, special purpose groups. Factors which attack the opponent are the rubber or plastic bullets, a case-shot, substances of lachrymatory or irritating action, a rubber-sticky liquid, incendiary, marking mixes (in grenades) and shells of charges which are used for fighting smooth-bore fire-arms. On tactic-technical characteristics smooth-bore fire-arms of a special purpose are divided into: a) classical and b) universal [14].

The classical smooth-bore fire-arms of a special purpose on the tactic-technical characteristics are intended only for shooting of shells (rubber or plastic bullets or a case-shot, and also the grenades equipped with substances of irritating or lachrymatory action, the rubber-sticky liquid, incendiary, marking mixes). The universal smooth-bore fire-arms of a special purpose on the tactic-technical characteristics are intended to defeat the aim as by shells of classical smooth-bore fire-arms of a special purpose, so by means of fighting supplies for fighting smooth-bore fire-arms, namely lead and steel bullets, a case-shot, arrow-like shells. Thus, speaking about tactic-technical characteristics of classical smooth-bore fire-arms of a special purpose, it is necessary to ascertain, that tactic-technical characteristics of this weapon differ greatly one from another because of different design features (decision) and different technical standards in the countries-manufacturers.

Characteristic signs of this weapon are: a) the lock which slides and becomes isolated turn of the lock of a larva, or wedge closing; b) the great dispatch-trigger mechanism of hammer, hummer-planger type; drum-type, box-shaped, tubular shop; the length of a trunk fluctuates from 610 mm to 210 mm; Range of shooting up to 150 m; use of charges of non-standard calibres as non-standard there is the weapon calibre (KC-23); rather low rate of fire from 4 shots per minute; charges have as hunting paper or a plastic sleeve with a metal flange, or all-metal. The sleeve is charged by a grenade (gas, incendiary, marking), a rubber,

plastic bullet or a case-shot; initial speed of flight of a shell – 250-270 m/s. Thus, the smooth-bore fire-arms of a special purpose coincides with fighting smooth-bore fire-arms by an action principle (use of kinetic energy of combustion of gunpowder for throwing of an individual or plural shell), but differ with tactic-technical characteristics which concern: length of a trunk (from 610 mm to 210 mm); calibre (non-standard but there are exceptions); the lock which slides and becomes isolated turn of the lock of a larva or cotter connection; the great dispatch-trigger mechanism of hammer; drum-type, box-shaped, tubular shop; small range of shooting (to 150) and initial speed of flight of a charge (250-270 m/s), etc. The cartridges to this weapon by type have the hunting paper or plastic sleeve with a metal flange, which is equipped with a grenade (gas, incendiary), a rubber, plastic bullet or the case-shot.

As to tactic-technical characteristics of universal smooth-bore fire-arms of a special purpose, the following tactic-technical characteristics are typical:

- 1) calibre 12 or 20;
- 2) the length of a trunk is less 500 mm (there are exceptions);
- 3) trunk drilling the cylinder (0,00 mm.); Over 4 cartridges in shop;
- 4) special fighting supplies;
- 5) length of a cartridge chamber 70, 76, 82, 89 mm;
- 6) presence of the pistol handle; rifle front sight and dioptrical sight;
- 7) presence of adaptations for fastening of a laser sight, the device of night vision, a lamp-lighter;
 - 8) quantity of trunks -1;
 - 9) presence of special markings;
 - 10) initial speed of flight of a shell 250-820 m/s;
 - 11) presence of nozzles for shooting of grenades of 36 and 82 mm.

This weapon is used only in police and groups of a special purpose (Ministry of Internal Affairs) and is intended for conducting special operations and performance of operatively-office problems in the process of which live force of the opponent is injured or destroyed. Versions of this weapon differ one from another in the technical characteristics, different design features (decisions) and technical standards of the countries-manufacturers.

Taking into account these features it is offered to classify smooth-bore fire-arms of a special purpose into the following two groups:

- a) the classical;
- b) the universal.

Thus the classical smooth-bore fire-arms of a special purpose on the tactic-technical characteristics are intended only for shooting of shells (rubber or plastic bullets or a caseshot, and also the grenades charged by substances of irritating or lachrymatory action, the rubber-sticky, marking liquid, incendiary mixes). The universal smooth-bore fire-arms of a special purpose on the tactic-technical characteristics are intended for shooting as shells of classical smooth-bore fire-arms of a special purpose (with the help under-calibre nozzles), and fighting supplies to fighting smooth-bore fire-arms (lead and steel bullets, a case-shot, arrow-like elements). By the trunk length the smooth-bore fire-arms of a special purpose (classical and universal) are divided into short-barrelled (length of a trunk to 270 mm), midbarrelled (length of a trunk from 270 mm to 500 mm) and long-barrelled (length of a trunk over 500 mm). According to the same sign the fighting smooth-bore fire-arms are divided into mid-barrelled (length of a trunk over 270 mm and to 500 mm) and long-barrelled (length of a trunk over 500 mm) [11, 12].

Actually, a person who is 21 can own a shotgun and, a person who is 25 can own a rifle. For this it is necessary to do the following:

- to submit a written petition addressed to the head of Internal Affairs Bodies;
- to fill in a card-application;
- to be medically certified of having no contraindications for owning weapons;
- to pass prevention drug inspection;
- to pass exam on material part of firearms and rules of using firearms.

If everything is correct Internal Affairs Bodies give the person a licensee for buying the weapons. The license is valid for a 3-month-period and the purchase of firearms has to be registered within 10 days.

In general, today in our country public relations concerning arms turnover are regulated by nearly 90 legal acts (including laws, orders, decrees, etc.). But they lack the main normative act – The Firearms Act does not yet exist. For instance, in the C.I.S. and in some neighboring countries The Firearms Act was adopted in: the Russian Federation – in

1993, the Republic of Belarus – in 2001, Latvia –in 2002, the Republic of Moldova – in 1994 [1, c. 172].

Of course, a significant number of bills "On the weapons" have been given to the deputies for consideration since 1998 in Ukraine. Based on the results of analysis of the draft laws on firearms, you can draw the following conclusions:

- all submitted bills "On the weapons" need completing;
- in any of them the right of people for ownership and usage of office-routine firearms is not given, and in those cases, for people who have such right the art. 3, 19, 21 and 24 of the Constitution of Ukraine are violated;
- the most constructive is the bill by such deputies as: Chernovetskyj L.M., Rymaruk O.I., Danilchuko O.Yu. and Nedryhaylo V.M. dated by 02.10.2002, the most regulated one is the Bill of Cabinet of Ministers of Ukraine dated by 13.05.98
- it is appropriate to involve the firearms and art experts, historians, lawyers, economists and specialists on certification and criminal expert services in Ukraine to rework the bill.

Only on March 4, 2004, an act number 1171-D was adopted by the Supreme Council of Ukraine in the first reading. Draft Law of Ukraine "About the weapons" number 1171-A was a compromise, combining the most appropriate position privies projects (numbers 1171 (introduced by deputies of Ukraine Karmazin Ju.A, Chernovetskyj L.M., Nechyporuk V.P., Rymaruk A.I., and 1171-2 (submitted by deputies of Ukraine Vinskij J.V., Razvadovskyj V.I., Bul'ba S.S., Korol V.M., Zubov V.S.). The main feature of this Bill is a refuse to provide the citizens a right of ownership of short firearms (pistols and revolvers). Questions about readiness of our society to acquire such weapons, deliberation of all the pros and cons of such a permit is too complicated and therefore deserves a separate study [3, c. 111].

Subsequently, a draft Law of Ukraine "About turnover of non-military weapons" was introduced for consideration to the Supreme Council. It was adopted in first reading on February 9, 2009, a bill number 2105. Authors (Moysyk V.R., Gritsak V.M., Prokopchuk Yu.V., Pudov B.M.). The document offered to reduce the age limit for the right acquisition, possession and usage of fire-smooth-bore hunting firearms, weapons of self-defense by citizens of Ukraine from the age of 21 to 18 and the right to acquire, store,

carry rifle from the age of 25 to 21, as well as an expanded list of permitted weapons for possession by citizens of self-defense pistols and revolvers, designed for shooting bullets, filled with rubber or similar characteristics missiles non-lethal action. But on 17.02.2019 the draft Law was presented for replacement. In our view, it is quite appropriate, since the adoption of this draft bill the arms of "self-defense" can become a weapon of "attack"; secondly, a gun that shoots rubber bullets, can be converted to firearm, so, this may lead to outbreaks of crime in society, particularly considering the general level of civilization, the level of culture, the level of aggressiveness in the society and the economic crisis. 15.04.2019 a draft Law of Ukraine "About turnover of non-military weapons" was once again introduced for consideration to the Supreme Council, but it wasn't established as The Firearms Act [15].

Besides, there is an issue that The Firearms Act of Ukraine must be established according to the international requirements. Nowadays our country is the participant of different international programs, such as The United Nations Program on the Illicit Trade in Small Arms and Light Weapons, and other Law Acts of Organization for Security and Cooperation in Europe about small arms and light weapons.

It is also important to note that the agreement On The Cooperation Of Member Countries Of The Commonwealth Of Independent States In Combating Illicit Trafficking In Firearms, Ammunition, Explosives and Explosive Devices has a strong role for the development of national legislation on firearm trafficking [16].

In addition, Ukraine is clearly fulfilling the decrees adopted by the Security Council, Organization for Security and Co-operation in Europe and within the Wassenaar agreement, United Nations Security Council resolutions, implementing the sanctions regime is the governing doctrine in deciding the relevant laws and regulations. It gives our country the opportunity to be in line with the leading countries of the international community in matters of legal regulation of firearms turnover.

One of the recent Directives is 2008/51/EC of The European Parliament and of the Council of 21 May 2008, which is amending Council Directive 91/477/EEC on control of the acquisition and possession of weapons. Actually, it is important, that in article 4 of the Directive 2008/51/EC it states The Member States shall, by 31 December 2014, ensure the establishment and maintenance of a computerized data filing system, either a centralized

system or a decentralized system which guarantees to authorized authorities access to the data-filing systems in which each firearm subject to this Directive shall be recorded. This filing system shall record and maintain for not less than 20 years each firearm's type, make, model, caliber and serial number, as well as the names and addresses of the supplier and the person acquiring or possessing the firearm [10].

Member States shall ensure either that any firearm or part placed on the market has been marked and registered in compliance with this Directive, or that it has been deactivated.

For the purpose of identifying and tracing each assembled firearm, Member States shall, at the time of manufacture of each firearm, either:

- a) require a unique marking, including the name of the manufacturer, the country or place of manufacture, the serial number and the year of manufacture (if not part of the serial number). This shall be without prejudice to the affixing of the manufacturer's trademark. For these purposes, the Member States may choose to apply the provisions of the Convention of 1 July 1969 on Reciprocal Recognition of Proof marks on Small Arms; or
- b) maintain any alternative unique user-friendly marking with a number or alphanumeric code, permitting ready identification by all States of the country of manufacture.

The marking shall be affixed to an essential component of the firearm, the destruction of which would render the firearm unusable [10].

In our opinion, above-stated requirements of the Directive 2008/51/EC will be really effective for prevention if illegal firearms turnover.

For complete and comprehensive crime prevention, investigation and disclosure of information about a crime and those involved in it has a great importance in Ukraine. One of the information sources necessary for the investigation is criminalistics account, produced by the police of Ukraine. Criminalistics account is a scientific system of registration of certain facilities and identification signs for the prevention and disclosure of crimes, investigation and identification of objects taken into account. This system and its usage are based on strict adherence to the rule of law. Certificates of facilities doing criminalistics account, after their accession to the case are used as evidence in legal proceedings (Article 65 of the Criminal Code of Ukraine). Accounting firearms is regulated

by the Order "On the approved instructions for the functioning of criminalistics account of expert service of the MIA" from 10.09.2009 № 390 [6, 13].

Conclusion An important place in this position holds the Forensic expert service of the Ministry of Internal Affairs of Ukraine, since its duties include prevention as well as direct assistance to disclose crimes. Also one of the main forms of interaction of Forensic expert service with other departments of Internal Affairs is conducting criminalistics account. Besides, the expert criminal divisions conduct ballistic expertise and research.

Currently, with the establishment of effective and lawful Firearms Act and development of Forensic Identification using criminalistics account is the way of successfully combating criminal manifestations in our society and, consequently, ensuring the constitutional rights of citizens.

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The Global Problem of the Third Millennium: Organized Transnational Cybercrime (Historiography)

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Abstract

During the last decade issues connected with rapid development of phenomenon known all over the world as "computer crime" have been thoroughly studied. At present this concept (rather conditionally) includes all illegal actions when electronic processing of information was an object or means of committing them. Thus the problem now embraces not only crimes directly connected with computers but also such as fraud with credit magnet cards, crimes in the telecommunications sphere (fraud with international phone conversations payment), illegal usage of electronic payments bank network, illegal software, fraud in using play slot machines and many others. Crimes connected with using evidence of computer origin when investigating traditional crimes are also referred to this group of issues. Computer crime is an international phenomenon; its level is closely connected with economic level of society development in different countries and regions. Less developed technically counties due to the activity of international law enforcement organizations have an opportunity to use experience of more developed countries for preventing and detecting computer crimes. General tendencies, criminal means and preventive measures are similar in different countries in various time periods, they are based on united technical program and methodological base of these crimes. Thus "computer crime" notion together with development of computer, telephone technologies was gradually transformed into crimes in informational technologies' sphere concept.

Features characteristic for crime in a sphere of information technologies: international character of a crime (extends the boundaries of one country); difficulties in locating a "place of crime"; weak links between chains in an evidence system; impossibility to watch and fix the evidence visually; wide usage by criminals the ways of coding the information.

Key words: computer crime, detecting and investigating computer crimes, automated systems and technologies, informatization and computerization.

Introduction Nowadays mankind goes through rapid development of automatization, informatization and computerization of all life spheres. According to the NUA Internet Surveys data the number of Internet worldwide net users increased from 80 thousand in 1988 to 400 million in the end of 2000. About 1 million of them are in Ukraine. The Decree "On Measures Concerning National Part of Global Internet Network and Providing for Wide Access to This Net in Ukraine" signed on July 31, 2000 by the President of Ukraine assists in our country efficient usage of global net possibilities for science, education, culture, and entrepreneurship activity development. This Decree, in particular, provides for central organs of executive power to create and fill with information Web-pages, to establish proper economic, legal and technical conditions for granting citizens and legal persons of all property forms wide access to the net [1]. Though spreading informational technologies also has a negative aspect: it opens way to antisocial and criminal behavior. Computer systems have new, rather advanced possibilities for violations not known before, and also for committing traditional crimes with not traditional means.

Description of the installation At Big Eight conference dedicated to cybercrime in October 2000, it was mentioned that losses from cybercrimes are up to 100 billion DM every year. USA Accounting Chamber estimates annual losses from thefts and frauds made with the help of international technologies through Internet as \$5 billion [2].

Besides the fact that crimes committed under using brand new technologies cause great economic losses, society becomes more dependent on automated system work in different life spheres – beginning with administrating army, enterprises, organizations, institutions, planes and trains to medical services and national security. Sometimes even slight fault in functioning of such systems can lead to real danger for people's lives. Rapid growth of global computer and telecommunication networks, also possibility for connecting it to ordinary phone lines increase their possible usage for criminal activity. No doubt, technically developed countries mostly suffer from computer crimes (here and further it will be used as a conditional term), though there are now favorable conditions for committing such crimes in other countries with the beginning of computerization process. In particular, Internet global computer network gives a possibility for access to any world departmental computer system, including a military one. Besides, it can be done from any place in the world. In comparison with Great Britain, Germany, USA, Japan, the Ukrainian national security still much less depends on computer

networks: financial credit sphere mostly suffers from computer crimes. But in near future these crimes may lead to global disasters – ecological, economical, transport, etc. Introduction of moderns system for administrating culture, education, science, medicine, aircraft's routes in air, and electronic payments system, spreading of telecommunication network, using computers in law enforcement and military activities – all that considerably widened activity sphere for all kinds of computer criminals: hackers, crackers, preachers, cyber rogues, collectors, and pirates.

The public is more interested in these issues now because every user or owner of computer, phone, radio-phone, modem, plastic card is a potential victim, he can suffer from serious consequences in a case of committing crime, especially if committed in public, commercial or industrial sector where big financial losses are probable. Computer criminals with the help of international computer networks (similar to Internet) widely spread their criminal experience, not without paying attention to state boundaries. This requires corresponding steps for cooperation from law-enforcement organs counteracting to these crimes, operative information exchange about computer crimes.

With the development of global computer and telecommunication networks the industrial espionage practice has become widespread. That is why the problems of working out protection system and keeping state, commercial and official secret acquire today special importance. Many problems arise from services' thefts, that is intrusion to phone networks, and illicit communications' services trade. Sellers of illegal software, pornography, firearms and drugs also widely use Internet for conducting business, information exchange, and coordination of actions. Computer networks besides may become an object of terrorists attack. In May 1998 "Tigers for Tamil liberation" in Sri-Lanka were first among other terrorist groups to hold cyber-attack directed against the embassies in the capital.

Starting from 1991, there is a Working group for computer crimes problems at the Interpol General Secretariat, this group studies this type of crimes in different countries, works out recommendations, helps to unify national legislation, accumulates methodological experience in investigating computer crimes.

During its existence the working group has created modern computer crimes classification, worked out unified form of notification (inquiry) about such crimes, it is working at the reference-book "Computers and Crimes", to unify methods and procedures of

investigation in different countries. Every year it organizes professional training courses. Expanding activity sphere of the working group led to its renaming in 1996 into European Working Group dealing with issues of crimes in information technologies' sphere. Three major directions of working group activity were set: Internet-analysis of situations, studying legal and police issues; frauds using electronic means of payment; frauds using different kinds of communications and telecommunications. Special attention is paid to issues of international co-operation when investigating computer crimes. Many countries have created specialized detachments for fighting this kind of crime, they are at the national level engaged into detection, investigation of computer crimes and collecting other information related to this issue. Specialized national police detachments create main nuclear of counteracting international computer criminality. Such detachments have already been created and work for a long time in the United States of America, Canada, Great Britain, Germany, Sweden, Switzerland, Belgium, Portugal, Austria, Poland and many other countries [3]. Doubtless international authority in Internet safety sphere is Computer Emergency Response Team (CERT), founded by Software Engineering Institute at Carnegie Mellon University in Pittsburgh, USA. CERT workers help Internet users to expose cases of penetration to information system, work out and spread informational safety manuals.

International community reached the conclusion that organized information infrastructure safety only at national level would not be effective too. At the same time organized counteraction to criminal activity only by means of law-enforcement organs is not always effective. That is why at the beginning of 90-s FIRST organization was created – forum-incident Response and Security Teams, it unites 80 response teams from 19 countries. These teams are state, commercial, industrial and educational institutions. Information from other countries quickly and in accessible form (notification language, specific terms, crime codes, etc.) has to get to national specialized detachments (if there are none, to other organs in charge). To achieve it, and also for operative information exchange between countries, even in 1994 Interpol General Secretariat recommended all countries-organization members to create national central reference point deeding with computer crime problems, and assign certain workers to work with information about computer crimes. These points are founded as a rule at the National Interpol Bureau apparatus or at the specialized detachments that are engaged in

computer criminality or economic crimes. In Ukraine at the Interpol National Central Bureau such point was established on September 17, 1996 [4].

Conclusion This gave an opportunity to accumulate material on legislative regulation and organizational experience in preventing, detecting and investigating computer crimes in different countries, to prepare a number of analytical reviews and publications on actual issues, to acquaint workers of the Ministry of Interior, the Procurator's Office, court with this new to Ukraine type of crimes, to introduce concrete propositions on improving criminal legislation of Ukraine.

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Decentralization of Authorities and Local Government Reform in Ukraine: Their Impact on the Efficiency of Public Law, Power and Strengthening of Democracy

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Abstract

The decentralization of power in Ukraine, together with its impact on the efficiency of public authority and strengthening of democracy, is considered through a prism of theoretical concepts, dealing with the variety of types and major decentralization models, coupled with the corresponding advantages and risks.

Research Design & Methods: The analysis covers the research and theoretical concepts, offering their own approach to decentralization by delegating certain public authorities to a lower level. It also considers the experience of other international countries to pass the decentralization process; the tools and risks that may be associated with the decentralization process; and the achievements and challenges of the decentralization process

in Ukraine. In the same time, the authors concentrate on substantiating the importance of balancing the national and local interests.

Contribution / Value Added: Although being theoretical, the article provides a foundation for a successful implementation of the decentralization process in Ukraine, which is a part of the most sectoral reforms.

Finding and recommendations: The authors believe that efficiency of public authority and strengthening of democracy in Ukraine shall depend on the ability of political elite to cooperate creatively and constructively for the further implementation of reforms under condition of the delineation of competences, functions, and responsibilities between the central, regional and local levels of government and territorial communities based on the new administrative and territorial division. It shall also depend on a greater political involvement among the primary holders of political power (citizens and community), which entails a greater understanding and support within a political elite and society. In case of Ukraine, the decentralization represents the imperative of our time and the foundation of the democratic governance model.

Keywords: decentralization, nation, democracy, local self-government, territorial community.

Introduction he attempts of launching liberal reforms in Ukraine were made from the very first days of independence. Though, the lack of political will to initiate a large-scale reform of public administration and territorial organization of power under conditions of decentralization and subsidiarity resulted in very little changes if any at all. Making the right choice for Ukraine and its further development regularly became the subject of heated discussions among scientists, public officials and the society. There was a need to reform the local government as a public institution and a part of the overall public administration system.

The decentralization of power plays an important role at the current stage of the development of Ukraine as a democratic state of law. This article is designed to uncover any challenges in developing legal foundations for the decentralization of public authority, its further implementation, and the role in strengthening the democracy and preserving the system of the people's authority within a country.

Analysis of recent studies and publications According to national and international scientific and practical researches, the implementation of a decentralized governance (hereinafter referred to as the "Decentralization") is considered as a multifaceted concept that represents, in the most general terms, the transfer of authority (power), responsibility and resources from a national (state) to a subnational (regional, local) level, which is represented with the corresponding government agencies, to local agencies (regional offices) of central executive authorities, or to a private sector (Nyzhnyk, 2016, Averianov, 1998, Varnalii, 2007, Nyzhnyk, 1997, Odintsova, Mostovyi, & Amosov, 2002).

There are different approaches to axiology behind the decentralization of public authority, government authority, executive authority, and public administration as well as its definition, typology and classification depending on the research subject.

According to the Encyclopedia of Public Administration, the decentralization is defined as the mechanism for territorial organization of power, which is used by the state to delegate the decision-making authority in certain areas or matters to local or regional agencies that are not part of the executive authority and retain a degree of independence. It is a complex notion in a democratic state of law, which provides for the delegation of certain power by the central state administration authorities to some lower level agencies with corresponding rights, responsibilities and resources. The ultimate purpose for such a redistribution of power would be the ability to take management decisions at the national, regional and local levels. [19].

The decentralization is designed "to increase the efficiency of State machinery and promote the development of regional agencies and municipality based on the principles of democracy, which could be measured by full enjoyment of all human rights, legitimate interests and responsibilities of local population in the form of municipal, community or regional teams territorial self-governing bodies" [4].

There are various views on the types of decentralization. Z. Varnaliy and M. Kornienko distinguish two types of decentralization: the deconcentration and the devolution. The deconcentration – is the delegation of certain authorities to the respective regional representative, while preserving significant influence of the supreme governing body in case of the centralized state. The devolution entitles self-government authorities with the right to take decisions and pursue an independent financial and management activity. In case of devolution, the local self-government authorities acquire a legally independent status, turning themselves into a separate administrative level, where the government maintains only an indirect control.

The main objective of the decentralization process under present conditions is the clear delineation of competences, functions, and responsibilities between the central, regional and local levels of government [7, 26, 27].

Referring to studies made by the Manor J. (1999), O. Kuchynskyi distinguishes three major types of decentralization. He believes devolution to be the only democratic method as it provides for a significant transfer of authority and resources to the local government level. It is the type that is currently implemented in Ukraine. The other two types – the deconcentration and the delegation – only provide for the transfer of authority from a higher to a lower level of

government, while the local government is only entitled to certain powers of public authorities [10].

Some tend to distinguish two types of decentralization – the administrative (or bureaucratic) and the democratic. The administrative decentralization stands for an extension of the competence for local administration, allowing a certain degree of independence from central government. The democratic decentralization provides for the establishment of a ramified local government system, when all the local matters are decided by the locally elected officials rather than central government representatives [5].

Referring to studies made by the Faguet J-P., O. Nizhnik distinguishes a number of types for decentralization process, including political, administrative, fiscal and market decentralization – all of them tend to take a variety of forms. The political (or democratic) decentralization provides for a transfer of authorities to elected officials representing a certain administrative unit (to local government) that involves the right to levy some of the taxes (including their rates, to a certain extent) and make decisions on their spending. One of the extremities of this type may involve the transfer of so much authorities and resources to a local government that precludes any further public transfers. According to a number of scientists, this may produce an increase in their responsibility for rendering public services and promote the legitimacy of actions taken by local politicians. Ukraine is currently opting for a similar type of massive political decentralization that involves the implementation of its fiscal (or budgetary) form and a corresponding increase of local budgets by expanding the right of territorial communities to levy taxes [15].

The notion of democracy on the other hand has a variety of interpretations and theories that offer a different importance to a decentralization process. According to Robert Dahl's theory of polyarchal democracy, the decentralization of public authority should not be considered a necessary precondition for democracy. On the contrary, the decentralized public authority plays a significant role in two of the most popular theories of democracy (liberal and participatory) in terms of its practical application. Although, those theories have different approach to the substantiation of this role. The theorists of liberal democracy see decentralization as a tool to limit the influence of central government on the society and economic life (Bolick, 1995). Whereas, the theory of participatory democracy believes that decentralization could be used to promote the political commitment of citizens at a local level.

This theory criticizes the liberal democracy for reducing the political commitment at a local level.

According to M. Kornienko, a truly democratic nation cannot dispense with the decentralization of its executive power. In the same time, the most serious challenge comes with the substitution of notions. This is when the notion of decentralization is used without reference to its type (democratic (devolution) or administrative decentralization, which provides for the establishment of specific governmental bodies (local state administrations, prefectures, government commissioners, etc.) representing the so-called vertical chain of the government or executive power) that results in attributing the pseudo- or quasi-characteristics to a decentralization at the application (rule-making) level [7].

The decentralization may be clearly considered as a form of developing the democracy, which allows to preserve the unity of the state and its institutions, while expending local governance, promoting the commitment of citizens to support their needs and interests, limiting the sphere of influence of the State over the society (replaced with the mechanism for self-governance as developed by the society), and reducing the civil service costs covered by the nation and tax-payer's money [21].

International experience All research papers on decentralization admit the absence of a unified (universal) approach to decentralization, including its components, types and models, both in theory and in practice. The selection of forms and priorities for decentralization is all about the formulation of national strategy for cooperation between the organization of public authority and administration at all levels of territorial arrangement.

According to analysis of decentralization reforms and their impact on increasing the role and development of local government in foreign countries, the current local government systems along with the administrative and territorial structure of European countries resulted from the development of national states under conditions of democratization, urbanization, introduction of legal checks and balances system as well as in response to the needs of the modern society, the spread of the movement for social control and attempts to establish a welfare state.

The changes in the system of government may be roughly divided into the following types: changing the number of administrative units, institutional reforms, financial reforms, functional reforms and procedural reforms [11].

The first wave of reforms in European countries was marked by a reduction of administrative units to include municipalities. It was often assumed that effective and efficient rendering of services locally would require a larger constituency and administrative unit [16].

This perception was certainly widespread by the Nordic Countries and the Great Britain. Similar reforms took place in Sweden, Denmark and Finland. The municipalities of Sweden converged around the neighbouring cities to facilitate the performance of joint functions that was incorporated into their legislation.

The consolidation of communities in different European countries resulted in both positive and negative consequences (primarily in France). Since most of the successes occurred in case of voluntary consolidation of municipalities, this type of changes should be taken as the basis for territorial reforms in Ukraine [23].

The development of regional democracy and self-government in European countries were the other important areas for reforms. The intermediary level of governance was reinforced to settle challenges of ever-growing urbanization and the demand for new types of services. It allowed to take decisions and operate throughout an area that exceeded a single municipality (community) and served an effective tool for territorial and spatial planning, etc. [17].

The movement in support of decentralization / democracy in Spain and Italy, joined by Norway, Denmark, Germany and France after World War II, was yet another factor that promoted an intermediary level of governance at the regional level.

This process finally led to a development of three levels of governance: national, intermediary (regional) and local. The intermediary level of structures was represented with fairly new regional elected authorities entrusted with executive and, to a certain extent, legislative powers (Belgium, Germany, Spain, Portugal, Italy).

The other type of reforms that took place in Europe in the end of XX century were institutional reforms. They were only possible in case of a strong influence of central authority and provided for organizational changes within territorial units that involved the following aspects: strengthening of the role of mayors and elected councils; increasing the openness, transparency and democratic nature of the decision-making process; strengthening the role of public in the decision-making process; introducing compulsory planning mechanisms (for "efficient planning"); replacing local staff and amending regulations on the activity of

authorities. Those activities were primarily designed to promote the commitment of local government within the political system of a corresponding country and turn them into main public policy advocates (Italy, Great Britain, etc.).

Most of the recent decentralization reforms in European countries brought an increase in the amount of resources for local government [18].

The functional and procedural reform included a range of activities designed to decentralize the power of public authorities by delegating it to local government. In Great Britain, the responsibility for rendering social services was entrusted upon local level to make it closer to ordinary people. Italy decided on similar decentralization efforts covering most of the state functions.

In some countries (France, Italy, Spain), the prefects lost much or all of their oversight function in relation to local government. It was accompanied with the introduction of new systems for planning and raising the efficiency of rendering services (Germany, France, Denmark).

The following major objectives of decentralization reforms could be identified for most of European countries: higher quality of services for population, greater effectiveness of public authorities and local government, services closer to the people (introduction of the subsidiarity principle), transparent public administration, higher commitment of citizens to a decision-making process, consolidated budgetary polity, more resources for local government [22].

The public administration reform in Central and Eastern Europe (particularly Poland, Hungary, the Czech Republic, Slovakia, and Baltic states) in the period from the late 1980s to the early 1990s was largely determined by strategic objectives of corresponding countries and their European integration policy. Some of the main directions of this reform included the use of many forms of decentralization (primarily the establishment of the municipal level), the introduction of subsidiarity principle and bringing the administration system in line with the EU standards [14].

The current stage of reforms in public administration of the EU countries with decentralization in mind is based on the following principles: development of civil society, effectiveness, transparency, openness and accountability of public authorities, flexibility and subsidiarity. These principles define the whole modern European paradigm of public

administration within the EU (so-called "good governance system"), which is applied at all levels of administration: Pan-European, national, regional and local [9].

The situation in Poland proves that decentralization could be successful if combined with other democratic reforms. The dissolution of the socialist bloc was followed by the restoration of multi-party system, media pluralism and conditions the development of civil society (Kaldor 1997). This sort of decentralization has demonstrated positive results and became one of the models to consider while developing reforms in Ukraine. Most notably, the introduction of fiscal decentralization reduced the deficit of local budgets (Bukowska, Siwińska-Gorzelak 2018). More authorities for voivodeship allowed for a direct EU funding, which could be around 30% of their receipts [12].

The decentralization is a complex, comprehensive and extremely difficult process, which is considered one of the major principles for organization and operation of public authority, the strategic direction for modern national policies, and a component of the most sector reforms.

Under current environment, decentralization is considered a factor of political security that becomes ever more important and controversial today. The priority and strategic importance of the decentralization principle in the national policy is unquestionable, both within the international and national domains. It can be seen in the provisions of key regulations of institutional and legal nature that outline the national policy of Ukraine, particularly the Association Agreement between the European Union, European Atomic Energy Community and its Member States, of the one part, and Ukraine, of the other part, the Strategy on Sustainable Development "Ukraine - 2020", the Coalition Agreement, the Action Program of the Cabinet of Ministers of Ukraine, and the Medium-Term Government Priority Action Plan up to 2020. These documents reflect the intentions of the country and the willingness of its society to modernize their public administration system and have its components brought in line with international legal standards.

Greater political commitment among the primary power entities (citizens and community) is vitally important and needed.

An important constituent element of public authority is the mutual responsibility of both local authority or government and territorial communities. It places special responsibility on

the institution of civil oversight, whose procedures, even if imperfect, are mentioned on the constitutional and legislative level [20].

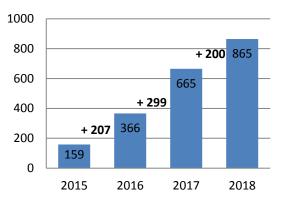
Peculiarities of reform in Ukraine A substantive political dialogue between Ukraine and the Congress of Local and Regional Authorities of the Council of Europe took place in 2013 to promote the implementation of its Recommendations 348 (2013) on the local and regional democracy in Ukraine in accordance with the Resolution 353 (2013) REV "On Congress post-monitoring and post-observation of elections: developing political dialogue". It was followed by the development of the Post-Monitoring Programme (PMP) with three post-monitoring units (PMU) based on major recommendations (REC 348 (2013)) for authorities designed upon the results of their missions in 2012 and 2013: 1. Clause 7d – on the transfer of authority; 2. Clause 7c – on the financial independence; 3. Clause 7a – on the incorporation of territorial units and cooperation between municipalities.

The reform was started under extremely difficult circumstances of having a foreign aggression and domestic instability.

The decentralization reform was started in April 2014 with the approval of the concept of reforming the local self-government and territorial organization of power by the Government of Ukraine.

The results of monthly monitoring by the Ministry of Regional Development are posted on the official website for decentralization efforts. The decentralization and reform of local self-government in Ukraine are characterized by the following indicators.

The achievements of decentralization process The legal framework of reforms was developed in compliance with the Constitution. It included over 30 laws and other regulations designed to promote its implementation. The laws of Ukraine on voluntary association of territorial communities and their cooperation laid the foundations for another stage of administrative decentralization that involves the establishment of capable (basic) local government – the Associated Territorial Communities (ATC). A total of 865 ATCs (see Fig. 1) were established as of November 2018, to include 3981 (see Fig. 2) associations of village, settlement and city councils on voluntary basis (7.1 million people or 20% of the total population of Ukraine).

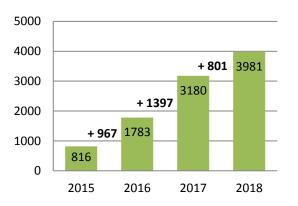


in 2015 - 2018

865 associated territorial communities (705 communities – first local elections took place, 123 communities – first elections are scheduled for 23.12.2018, 21 communities – pending the decisions of the Central Electoral C

Figure 1. Quantity of associated territorial communities

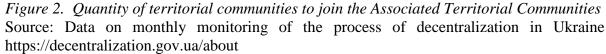
Source: Data on monthly monitoring of the process of decentralization in Ukraine https://decentralization.gov.ua/about

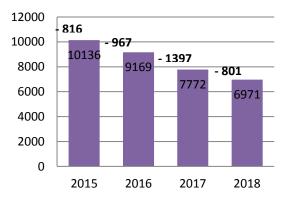


in 2015 - 2018

3981 territorial communities joined into 865 associated territorial communities (36.3% of the overall quantity of councils as of 01.01.2015**)

** without temporarily occupied territories





in 2015 - 2018

6971 territorial communities remain non-associated

(63.7% of the overall quantity of councils as of 01.01.2015**)

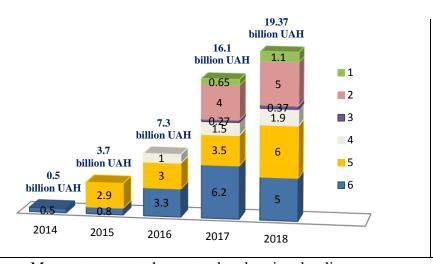
** without temporarily occupied territories

Figure 3. Quantity of non-associated territorial communities

Source: Data on monthly monitoring of the process of decentralization in Ukraine https://decentralization.gov.ua/about

The introduction of amendments to the Budget and Tax Codes of Ukraine produced an increase in budgets of local government from 68.6 billion UAH in 2014 to around 231 billion UAH in

2018 (increase by 3.4 times). The largest growth rate of incomes is demonstrated by ATCs with direct inter-budgetary relations to the national budget, unlike the rest of local governments. When compared to 2017, their income increases for 2018 was 62%, while the rest of the local budgets had an increase by 22%. The state is actively supporting the decentralization reform of public authority to use it as a foundation for public administration reform. When compared to 2014, the government support to the development of territorial communities and their infrastructure has increased by 39 times and currently amounts to 37.8 billion UAH (see Fig. 4).



When compared to 2014, the government support to the development of territorial communities and their infrastructure has **increased by 39 times** as of 2018

- 1- Money to support the sectoral and regional policy
- 2- Subvention to develop medical support in rural area
- 3- Money for the construction of football fields
- 4- Subvention to develop the infrastructure of associated territorial communities
- 5- State Fund for Regional Development
- 6- Subvention for social and economic development

Figure 4. Support to the development of territorial communities and their infrastructure by the government

Source: Data on monthly monitoring of the process of decentralization in Ukraine https://decentralization.gov.ua/about

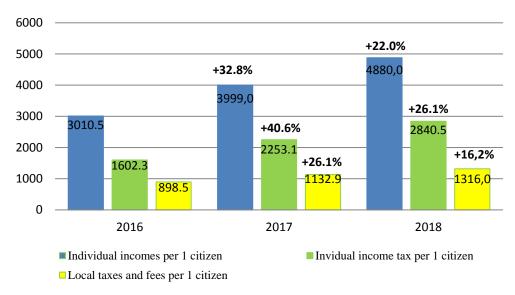


Figure 5. Impact of financial decentralization on the increase of local budgets (2016-2018) Source: Data on monthly monitoring of the process of decentralization in Ukraine https://decentralization.gov.ua/about

The position of a headman was officially established. This person is elected by the population of village(s) or town(s) located within the corresponding headman's district based on universal, direct, equal and universal suffrage and a secret ballot as provided by the law. The headman exercises its authority on a permanent basis.

The services were brought closer to the consumers with the establishment of centres for the provision of administrative services. A total of 775 centres have been established so far (see Fig. 6). This includes 452 centres established by local state administrations and 103 centres established by the associated territorial communities.

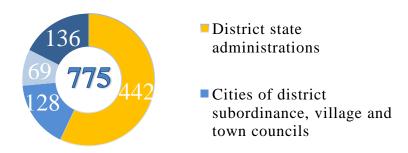


Figure 6. Distribution of centres for the provision of administrative services by the originating agencies

Source: Data on monthly monitoring of the process of decentralization in Ukraine https://decentralization.gov.ua/about

The decentralization (transfer of power from central executive authorities to local government) has been implemented in the following areas: education; health care; social policy; as well as architectural and construction supervision; administrative services (approval documents, registration of place of residence, entrepreneurs, real estate, extracts from the state land cadastre); local taxation (rates and benefits) since the authority to determine the minimum rent on land was delegated in 2017; procedure for imposing local taxes and fees was simplified; any offenses in the field of labour and employment (since 2017) are carefully monitored; banking services (own incomes of budgetary institutions and development budgets); direct appointment of accountants for budgetary institutions (all candidates should be agreed by the treasury before 2015); remaining subventions on education and medical support should be directed on the development of material and technical support for institutions.

The conditions were established to promote the cooperation among the non-associated territorial communities. The legal framework supporting the rights of local government to municipal consolidation; cooperation of financial, institutional and other resources; establishment of joint public utilities and their administration resulted in concluding 274 agreements with 1096 local councils.

The powers and resources allocated to local government as a result of decentralization provided additional capabilities for territorial development and support of modern education, health care, transport, as well as housing and utilities infrastructure.

The local authorities became more interested in promoting the investment attractiveness of their region for the benefit of the community, since all the collected taxes will be allocated for improving the life quality of its residents. A range of permits and approval documents for business activity can be obtained locally, while the community itself is able to attract investments to support the social and economic development.

The associated territorial communities can already feel the benefits of the reform as they observe the repair of the roads in villages, towns and cities as well as the construction of water pipelines and refurbishment of medical and educational facilities – that remained in decline for over a decade.

The reform promoted a comprehensive development of the community, allowing to increase the quality of life in every single settlement and the country as a whole, since all citizens were given a chance to rule where they live.

Risks of decentralization The concept of local self-government reform in Ukraine considers building a new territorial organization of public authority as an important component of the process. That is creating an administrative and territorial structure capable of becoming the foundation for modern public administration.

According to V. Nehoda (2018), the establishment of new joint communities proceeds at a steady rate. More communities are joining the cities with provincial status or associated territorial communities. These communities receive most of authorities and financial resources. In other words, the local self-governments are being established at the most capable communities (in addition to regional councils and regional state administrations) and serve as independent entities on a district basis. In this case, the functions and authorities of a district remain legally unchanged together with the standing division into districts. This results in conflicts of law and political conflicts between the three subjects of public authority, which are different by their origin. Hence, new challenges appear in the administration and complex socio-economic development of district territories.

The practical transformation of basic administrative and territorial units produced a need for further reform of local government, territorial organization of power, administrative and territorial structure, and consolidation of districts at a sub-regional level. This process is currently impeded by a number of village councils, still working on approval of plans for territorial establishment of regional communities.

New territorial framework should be established at the level of communities and districts before the local elections in 2020. Otherwise, the decentralization, which is all about the clear division of powers, budgets, and responsibilities between the authorities and self-government as well as between the levels of local governance, would be doomed to a standstill. The communities should not depend on the inability, lack of desire and political or other interests of the regional council. There is a need for clear guidelines on the establishment of administrative and territorial structure (draft law registered in the Verkhovna Rada of Ukraine under No. 8051) followed by 24 separate laws (or one overarching document) on the administrative and territorial structure of every region [29].

According to O. Nyzhnyk, the decentralization process comes with many risks and challenges, including those of a scientific and methodological nature. The main obstacle in terms of its implementation would be the absence of a comprehensive approach to public administration reform coupled with fragmentary performance and incompleteness of other important reforms (judicial, budgetary, tax, institutional, administrative and territorial, social, educational, and medical) [15].

There are many challenges, risks and obstacles with the decentralization of power when it goes to transferring authority to local government. Although, as confirmed by O. Skrypniuk, "there is no alternative to decentralization, since its success may serve a pre-requisite for effective territorial development and true people's power in Ukraine" [11].

Conclusions The implementation of local government reform and decentralization of power in Ukraine should result in a development of new democratic model of governance that follows the devolution principles. It should promote the role of territorial communities entrusted with greater power and authority along with financial and material resources at the cost of personal responsibility attached. The implementation of decentralized processes should cover many spheres of social life, including the economy, health care, education, and social support. All these may promote the consistency and coordination of reform efforts.

The decentralization of power in Ukraine increases the commitment of Ukrainian citizens to national administration; brings the public and administrative services closer to their consumers at a local level; educates the feeling of community and involvement into local decision-making process; promotes the balance between the public and social interests; forms a precondition of effective public authority and strengthening of democracy.

Ukraine took a difficult and complex path of development. In the same time, it faces a historic moment when all the reforms, however selective and attributive they were in the past, may be implemented in present.

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Making Sense of the Cultural Other in the Fabric of Knowledge Vis-à-vis The Yoruba Cultural Framework

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Abstract

The paper recognizes openness to the cultural other in accounting for knowledge. In that acknowledgment, it rejects the ultimacy of the familiar foundationalist categories. By so doing, it adds a layer of critique to these categories, thereby encouraging an appreciation of the cultural other

The paper selects its focus on the Yoruba as a shared example of a cultural order in accounting for knowledge. It thus, gets illuminated by a distinction between knowledge (imo) and belief (igbagbo), on the one hand, and the paradox of average conception of knowing requiring consultation through <u>Ifa</u>, on the other hand. If a claim were to culturally count as either knowledge or belief, the paper identifies certain conditions that would culturally count for or against it, and anyone defending the claim must be prepared to evaluate it based on explanation (alaaye).

One aspect, however, requiring particular mention is that the Yoruba account has its widest appeal in that which unites the individual with the Omniscient, a unity which makes prior epistemic achievements more secured. The Yoruba recognizes <u>Iwa</u> (character or essence) to facilitate such understanding.

Key words: Cultural Other, Average, Knowledge, Belief, and the Yoruba.

Introduction

Philosophy recognizes diverse way of responding to the failure of universality of involvements put forth as basis for a critique of knowing. This much has stimulated critical thought in every direction. Precisely, the point at issue, consists in determining whether a universal paradigm of knowing can become the standard for others. The view, however, that so much depends on universality is faced with problems. This has resulted in an ever increasing dissipation on pseudo- problems, such as skepticism, certainty detachment, etc., hence, exhibiting the problem of universality in its full force is to exhibit its pursuit as a pseudo-problem.

This paper is focused on the close connection between the very condition of knowledge that are already in place, un-problematically, prior to the challenge of universality, within a specified culture, the Yoruba, and knowing, as a more explicit rendering. Relying on this outcome, the paper considers a rejection of all foundational categories of knowledge, and in case of any reference to them, the aim is not similar.

The paper draws upon the basic proposition and underpinnings of the category of ''cultural other'' as the ''known unknown'', a further step beyond the ''universal known''. The paper discusses the pertinent categories developed by the Yoruba as paradigmatic of a

cultural other by attempting a critical comparison of knowledge/belief-formation in everyday involvements and one mode of knowing requiring consultation which has brought to light the priority of average conception. The thirst for knowledge, however, is not predicated on the defective acquaintance with what sense-impressions or testimonial knowledge has brought, hence, the need for Ifa, the consultant, represented by his priest. Despite the presumptive status of culture as providing conditions for knowing, the paper recognizes a generality problem in the Yoruba account. The everyday clarifications of the knowledge/belief distinction reconstitutes knowing as an elusive target to the point that we should either count or not count on its outcome, as the notion of consultancy is connected with the Yoruba epistemic practice. To understand this point, one must keep in mind that determining the nature of knowledge/belief distinction is half of the generality problem. In any case, there is still a lot to be learnt from the layer of everydayness. Kola Abimbola, admirably noted this point: "A religious culture such as Yoruba needs believers; it needs humans who organize, regulate, and conduct their day-to-day lives in terms of a world-view."

Cultural Other as a Scope That Counts

The overall aim of defending an account of knowledge in support of the cultural other takes off by disqualifying the effects which we ordinarily attribute to a rational induced hegemony in the course of developing an account of knowledge which has been founded upon it. We have often take notice in the works of the traditional epistemologists such as Descartes, Hume, Locke and Berkeley the hegemonic rootedness in their views of knowledge while trying to retain an element of certainty as an ideal of knowledge. Certainty as an ideal of knowledge does not address itself to a multivalent ways of knowing but rather maintains that the essence and the destiny of knowledge is tied to a single source of knowing, perhaps, outside itself. Knowledge could be understood from the abstract without our being involved.

The fact of knowledge is grasped from the perspective of participating in a standard outside itself. In this sense, according to Gilles Deleuze, "I affirm more than I know; my judgment goes beyond the idea. In other words, I am a subject." It is incomprehensible how human beings can meet this ideal of knowledge without a price since it ties together its notioning that the self cannot be reconciled with the others except with qualifications. This understanding for the most part has engaged foundationalist epistemology where a belief is justified only to the extent to which it is justified by a basic belief which in itself cannot be justified by another belief. The recurring undercurrent from the foundationalist category is thematic when a formula for the activity of knowing is based upon imitation or semblance. Deleuze puts the argument very succintly: "Hume suggests that, in knowledge, either we move from known to unknown circumstances, or we proceed from known to unknown relations." This is what Gavin Sanderson describes as "the realm of the known unknown."

The cultural other represents a shift of focus from how something is known rationally to how it is known by others. We avoid the use of 'the rest of us' in order to avoid further appeal to foundationalism. Our understanding that knowledge can be retrieved from the forgotten layers of human existence, that is, the "known unknown" demands that more attention should be paid to the cultural other.

The chief test of the thesis of the cultural other lies however not in its resistance to rationalism, but its power to derive outcomes by doing justice to the multiplicity of human experience which has been forgotten, taking recourse to Heidegger in the tradition where the subject that knows at the same time creates its own knowledge. The subject is partly individual and partially collective.

The supreme benefit of admitting the existential import of the cultural other lies in its utility against the conceptual difficulty of a general view of knowledge, which must be satisfied in some ways. We no longer think of truth, belief, justification, knowing, human knower, etc., as one-sidedly rational. In focusing on the cultural other, we gain an insight into rationalism with its emphasis on certainty and its consequent hostility to multiple truths, as an expression of just one source of the multiplicity of the everydayness or human experience.

There is little to be gained, however, from calling certain basic concepts in our existential profile rational. These include: truth, belief, justification, knowing, human knower and the like. This would imply that anything that is not derived from rationality is an invocation from false experience. The rational engagement with the "known unknown" is insufficiently developed to enable a cultural point of view. For Sanderson, it is unfinished business. For Kierkegaard, the basic concepts for the human subject cannot be reduced as essentially rational. For him, whilst it may be true that the rational absurdity of existentialist belief is indeed a benefit for existence, rational thinking makes it more difficult to believe, and so requires us to believe with a passionate intensity or patronage. The Kierkegaardian understanding of passional commitment proved itself as a challenge to Sartre, an existentialist. The focus of his, *Problem of Method* is to imagine the possibility of an existentialist as one who has passional commitment, to the extent of becoming a hallmark of a person giving testimony on existence.

Sartre clarifies, and in so doing, emphasises:

In fact, the subjective life, just insofar as it is lived, can never be made the object of knowledge. In principle it escapes knowing, and the relation of the believer to transcendence can only be conceived of in a form of *going beyond*. This inwardness, which in its narrowness and its infinite depth claims to affirm itself against all philosophy, this subjectivity rediscovered beyond language as the personal adventure of each man in the face of others and of God ... is what Kierkegaard called existence.⁶

This view, as it were, broadly subjective is flavoured with an existentialist sense of a human experience behind the untheorisable passional commitments. The existentialist real interest is not in passional commitments, but to solve the problem of the relations with others and the extent of our participation in solving the problem. Rather than start from a general view of knowledge, human knowledge, whether scientific or rational were the product of shifting human desires rather than of a reality extrinsic to those desires. According to Richard A. Posner,

It is that they wished to shift attention from a passive, contemplative relation between an observing subject and an objective reality, whether natural or social, to an active, creative relation between striving human beings and the problems that beset them and that they seek to overcome.⁷

If the above quotation describes the possibility of a form of knowledge with a shifting nature and how human beings seek to overcome their problems, much still remains to be explained if we are to be motivated by an account of cultural other. The point of view of the cultural other is to see the extent to which the problem confronting mankind can be solved through multiple perspectives. There would be a further problem if all human knowers on the basis of a perspective to truth seek to overcome the problem (scepticism) the same way. The task of the cultural other is that we can do epistemology by multiple approaches in solving problems that beset human beings.

This is the point post-modernism seems to be making against modernism.

... modernism is seen as a phenomenon stressing rationalism ... which gives order to a reality that can be known through the appropriate, that is scientific method. It also stresses an optimistic faith in mankind's uniqueness and ability to progress. ... post-modernism, on the other hand, emphasizes the lack of foundation in knowledge.⁸

That such expectation, that is, knowledge lacking in a foundation can be met in post-modernism without limits on human aspiration for multiple perspectives is what has led Gene Edward Veith to state that the concluding task of existentialism is that it is "the philosophical basis of post-modernism". If the epistemic goal defended in cultural other were not to endorse an already existing knowing modes or perspectives, Veith's point quite plausibly is an anticipation of a seemingly important insight of Kierkegaard. According to Kierkegaard, "my design here is not to teach the Method which everyone follow in order to promote the good conduct of Reason, but only to show in what manner I have endeavoured to conduct my own." 10

As we have seen, certain accounts of knowledge, notably rationalism and empiricism have been theorised to the point of reducing both as the epistemic aspirations of mankind. The "emerging world view cast humankind in an observing mold. Through perception, measurement, and mathematics, the human mind would uncover the secrets of nature, including those of the mind itself, as part of nature." Empirical knowledge or rational knowledge, both are not problematic for the existentialist, the real issue concerns the fact that all concepts of knowing should be graspable from these modes of knowing.

While avoiding the question of the relations with others, these knowing modes foreswear in the name of epistemic rational integrity 'forget' that that they ever had to make any passional commitment. ¹² One thing to say about epistemic rational integrity is that in spite of its distinctiveness and clarity, it focuses on truth to the extent of failing to elicit a strategy for bringing out the manner in which others have a claim to knowledge. Hayward has this to say:

In order to avoid confusing Dasein with one aspect of this complexity Heidegger focuses on Dasein in its most undifferentiated state, that is its everyday state. This helps clarify that which precedes, and makes possible, more definite mode of being such as theoretical thought. There is then the possibility of rethinking the troubled relation between everyday experience and theoretical thought.¹³

The problem with epistemic rational integrity is that it determines the forms in which scientific, rational or empirical knowledge-claims may be resisted in grasping how the others develop their accounts of knowing. As noted by Deleuze, Hume no longer feels that every modes of knowing will have similar peculiarities: we must distinguish between two kinds of reason, the reason that proceeds on the basis of *certainty* (intuition and demonstration) and the reason that proceeds in terms of probabilities (experimental reason, understanding).¹⁴

One important thing to say in making sense of the cultural other in the fabric of knowledge is that no one account of knowledge that has been developed can be said to be the best so far produced. This is because as remarked by Heidegger, every knowledge-claim has its force and time. For this reason, applied to culture, the 'known unknown' "both defines and makes us fearful." What we hope to solve by incorporating culture into the fabric of knowledge is through our relations to others rejects feature of a whole judgement in accounting for knowledge.

By this, it is meant that despite the technological, economic and other advances that are features of our world, it is inevitable that our humanistic advancement must sooner or later rely on progress being made in the area of basic principles that relate to understanding each other and acknowledging the legitimacy of other ways of knowing, which may not necessarily be similar to, or consistent with, our own. Added to this is the fact that not all epistemic aspirations are tied and initiated in satisfying the ideals of certainty, immutability, indubitability by accentuating our obsessions in defeating scepticism.

Points of View and Perspectives in Yoruba Account of Knowing

At this juncture, the questions before us include: Is there any way to make sense of the cultural other within the Yoruba framework in a fashion to show that the destiny of knowing is not tied to the rational mode of knowing? In order to become a knower, does it mean one must be a rationalist or a scientist in the senses earlier discussed? Can we have a mode of knowing that is not essentially linked to the legacy of rational mode of knowing? To do justice to these questions, we will turn to the cultural view maintained by the Yoruba and indicate the extent to which it represents a paradigm not yet established or to which little is known because of the rational or scientific mode of knowing in which all modes of knowing seems to have been assimilated. In what follows, the basic concepts of truth, belief and knowing developed by the Yoruba will serve to loosen the grips of knowing by rationalism, empiricism or scientism. These modes of knowing are mere aspects of the multiplicity of the everyday, and thus, they should not be weighted as foundational. The Yoruba framework, as a cultural other must therefore reveal other modes of knowing as aspects of the everyday while it is not foundational to these other aspects, it must not be abandoned when confronted with these modes of knowing. Or, better still, it should not be substituted by other versions of knowing interpreted either as weaker or stronger. As we have seen, the basic strategy of the cultural

other is to bring to the fore unsuccessful attempts of rationalism, empiricism or scientism as foundationalist frameworks by developing considerations for other modes of knowing.

This is adequately supported by Kola Abimbola who maintains clearly that "the hallmarks of Yoruba are to be found in a unique set of religio–philosophical beliefs on the basis of which the Yoruba organize, regulate and moderate their day-to-day lives." The traditional view of knowledge yields a familiar understanding that what is required to be added to a true-belief to become knowledge is justification. In what follows, as a main feature of contention, Gettier, however, has warned us that such epistemic achievement is not generalisable. Hence, the central task of the problem of knowledge is to arrive at a distinction between *knowledge* and *belief*.

The Yoruba relies on the resources of the cultural other in arriving at a demanding distinction between knowledge and belief. While knowledge is *imo*, belief is *igbagbo*. It is well to remember that discourse on culture typically employs language of nearest association. The most common philosophical source of the Yoruba example is the work of Barry Hallen and J.O. Sodipo: *Knowledge*, *Belief and Witchcraft*. Both start by accepting the description of the nature of knowledge and belief given by the *Onisegun*. Here, we find the hint that two conditions must be satisfied for something to count as *imo*. A person *mo* (knows) a thing if he has seen or witness the thing by himself. This is more than remotely connected with sight, that is, *ri*. The distinction between seen (*ri*) a thing and know (*mo*) it is not if we allow that it is only *ri* that is allowed as an antecedent for *mo*. A correct understanding of the essential nature of our senses is a requirement for knowledge they induced. While we may acknowledge a general scepticism about our senses, more generally too, *ri* (sight) is less controversial because of a structure of visual activism that accompanies its understanding.

Another way to view the place of *ri* is that in accounting for *imo*, one is not absorbed by naïve realism where knowledge elicits a propositional attitude that everything is knowable whether perceived or unperceived. Knowledge thus depends on the cognitive functions of our faculties. The following are perceptual vocabularies. People take *mo* to be as adequately supported by one's evidence with respect to *ri*.

If you *mo* it (by touch), you have already *mo* (by sight) ... If I close my eyes and I touch (*fi owokan*) ... it is because I have *mo* by sight. ... If you had seen it before, and you touch it, you touch it in vain.²⁰

Apart from firsthand knowledge, the Yoruba recognises the need for another variant of knowledge. As earlier hinted in this section of the work that knowledge needs not aspire to the ideal of certainty, the other variant of *imo* presupposes not necessarily indubitability in the Cartesian sense (because others are not involved), but rather explanation (*alaye*).

In this further aspect that concerns *alaye*, the emphasis is such that knowledge has significant influence on what matters to people in their everydayness. Its real importance rests on the fact that to know a thing is not restricted to logical relations that hold between propositions. When *imo* is "challenged," justification is obtained by explanation (*alaye*). *Alaye* becomes important when others seek to preserve the epistemic integrity of that which a person might have claimed to *mo* first hand. What a person *mo* should not leave others thinking

that it is a guess. The principle behind *alaye* is that we do not blame the person that claims to know a thing first hand, but others who fail to seek for explanation before we have a shared view of the knowledge-claim.

The more willing a person that claims to know a thing is prepared to *laye* (explain), "the *imo* of one man can become the *imo* of another." This concomitance and complementarist requirement that knowledge is justified by *alaye* impinges upon the conceptualisation of knowledge as presupposing propositional attitude. To the Yoruba, to *mo* (know) requires that we consider others in our knowledge-claims because they are presumably participants.

If participation is a precondition for knowing, the recognition is a basis for inferring, according to the Yoruba that *omode gbon, agba gbon, la fid a Ile – Ife*, that is, (wisdom of the young, wisdom of the old, is the basis for establishing Ile – Ife).²³ We would never act on any epistemic claim except that it is sustained by the participation of everyone. Admittedly, it must be stressed that this feature of Yoruba epistemology provides a starting-point for African epistemology. According to Didier Kaphagawani and Jeanette Malherbe, traditionally speaking, the take-off premise should be "We are, therefore I am."²⁴

It follows from above that in claiming to know something, rationality requires emotion as an epistemic operator. Emotion becomes an epistemic operator so that we do not loose our concentration on the closure strategy which recognises and expects knowledge to be possible only in certain domain of existence. This much has been anticipated by Merleau – Ponty's view: you ought to perceive in me, not that I perceive, a fact which suffices of itself in destroying sensitivity to non-participatory guided lexicon. What is important here is the shift from the reliability of first person knowledge upon which epistemology has been based since Descartes.²⁵

The scope of the Yoruba account of knowing will be under-described if this participatory requirement is not added. While exploring some basic connections between Yoruba epistemology and African epistemology, we discovered that with the Yoruba account, there can be exceptions to the general background to a standard picture of African epistemology as being authoritative. The epistemic goal of the Yoruba is to get beyond a concession that allows knowledge to be derived from a domain. Thus, one might wonder why "an emphasis on age as a necessary condition for knowledge and wisdom ... denies epistemological authority to the young and able." 26

The two variants of knowing according to the Yoruba must yield *ooto*, which means truth. Anything that I mo is ooto. 27 A pertinent question to ask is this: what if our account yields a falsehood? The attempt to answer this question will form a basis of comparing and distinguishing knowledge (imo) and belief (igbagbo). The sort of content the Yoruba attributes to belief (igbagbo) is different from that of knowledge which requires, for instance, that ri (sight) should be incorporated especially in the first-hand account. The Yoruba interest is readily an appeal to hearing faculty for anything to be believed, that is, gbo. Gbo means to 'hear'. Gbo is central to belief because its natural limits far outweigh that of ri (sight) in firsthand knowledge-claim. The question of how distinction is drawn between knowledge and belief is based on the understanding that gbo requires a different attitude since it is qualifiedly second hand. To throw shared light to what you gbo, we must remove constraints on gbo, by

gba it (accept it).

Thus, we arrive at gbagbo by conjoining gba with gbo "which is our primary interest."²⁸ The supreme benefit of incorporating gba is that one quite different pressure operates in having a belief – forming attitude. This is called *iwa* (character). What one believes cannot be foisted upon an ignorant public. The reason for incorporating iwa is to repudiate every kind of psychology in Yoruba epistemology proven pejoratively as ohun ni kan lo gbo (he is the only person that hears it). While avoiding falsehood, the chief test of gbagbo is to relegate to the background the BIV challenge. BIV, simply means brains- in -vats. It is the sceptical challenge that defends the view that a belief in a non-participatory, external world is possible. It is a vigorous sceptical strategy which holds that what one believes is an inferential justification for what one does not believe. Denial and affirmation does not constitute a diametrical opposite. Both are unitary. As a sceptical challenge, it wields grip over any account of knowledge beyond every anticipation; for justification for what one knows is compatible with a sleight of non-worldliness. The spread of its illustrations leave open the question of participation by others, even when there is tension cast over personal involvements. Its reinforcement in a cultural setting deserves a sweeping diagnosis of the "known unknown" as a target category of a diametrical opposite. Although, it is absent in the knowing orientation of the Yoruba, a move towards getting out of it as a basis of expectations for both antecedent and consequent justification of our beliefs will be a welcome relief. The Yoruba account of knowing is biased in favour of participation over non-Cartesian presuppositions, where participation is the view that what justifies an account of knowledge is a shared-world which allows a makeup for both antecedent and consequent justification of beliefs. That the Yoruba is disposed towards this priority is pretty widely delineated as follows. While *ooto* (truth) is needed, the Yoruba do not brush aside falsehood as the choice between the two can only be eliminated by familiarity with that person's iwa (character) upon which we hope to form our belief. Belief in this context is an intentional concept directed at iwa. Belief should improve our grasp of the speaker – hearer relationship. This sort of relationship is captured by Hallen and Sodipo as follows:

Hearing and Agreeing: this would represent successful communication, in that the hearer (in a speaker – hearer relationship) feels he understands what is being said and accepts it – with the status of gbagbo – as part of his own store of information.²⁹

In conclusion, the Yoruba knowing paradigm springs from the way they are involved, the way they encounter their world and the way they encounter the others. The Yoruba seeks a truth that cannot be divorced from the complexity of human experience. While not disputing the intentionality of average truth, the Yoruba account has implications for average truth as epistemic priority in dealing with issues.

The Paradox of Average Knowing and Knowing from the Standpoint of Ifa

As pointed out initially, our primary interest is to explicate the primacy of knowing within a cultural framework. This carries us a stage further in our indifference to imitation of standards and paradigms of knowing as epistemic goals. What one does to acquire this perspective is to bring knowing into confrontation with the accomplishments of that culture

regarding knowing, as well as making the accomplishments intelligible, even, while this might not be one's interest.

The expression, knowing is often used with an average understanding. As commonly understood, what, then, does the averageness belonging to knowing mean? Averageness presupposes that knowledge must be delineated as confrontation with the interpretation of social bond. It simply means the compulsion to share and derive knowledge from others whether personal or impersonal. It is this sharing and derivation that help create a social bond. Knowing, laden and charged as it were with averageness serves the interest of a cultural order when all ideas about knowledge are knitted into a full theme of social bond.

The problem is to explicate or say what this social bond is. Here, one will be compelled to have recourse to Heidegger for the tremendous influence he wielded in the task of developing strategies for avoiding the commonplace objections to personal achievements, be it knowing, without requiring the others, especially the community. Heidegger made an important distinction between what he calls ''mine-ness basis for inauthentic and authentic self-understanding.''³⁰ Heidegger seems to hold that rootedness of individual epistemic achievement often desired, but a recast of mine-ness as a proper object of theorizing is still in principle fortified by another framework in which mine-ness could be revised not to mean ''it is occupied with its own capacity.''³¹ It is ''in each case mine.''³² For Heidegger, mine-ness as basis for authentic self- understanding constitutes the most appealing for a grip on the cultural order while mine-ness with the rendering ''in each case mine'' rests on a mistaken assumption which denies knowing as a language of inter subjectivity requiring a social bond with both the personal and the impersonal.

Amazingly, there are better ways to avoid mine-ness as basis for inauthentic self-understanding. Which of the mine-ness is better is determined by how it help us to attain the goal of cultural order which is the notion of social bond as discursive in order to formulate the nature and meaning of knowing. Without leaving a gap between knowing and the social bond, here is how the Yoruba view mine-ness inauthentic account of knowing attesting to the likelihood that the hypothetical knower has achieved epistemic loss as knowing is made to bear inauthentic weight. Ogbon amoju a ma pa ologbon lara. This translates to: Undue quantification of knowledge is inimical to its possessor. The thrust of this Yoruba saying is that the knower must receive the delightful in the quest to know rather than the harmful. Thus we must say that the above Yoruba saying poses challenge to the account of knowledge as a specialized endeavor which builds on the epistemic achievements of an individual knower. Evidently, an individual must be prepared to embrace the maxim of average knowing, "the individual and the community are one". This is why, Heidegger, in spite of his belonging to the existentialist, still disapproves knowing subjectively without requiring public interpretation as an immediate layer of intentionality, construed as directness.

In this sense, if individual knowing as pertains to this contextual consideration is threatened on account of "want of bond" with the community the individual should be anxious to avoid the suspicion of amoja, that is, an expression, emphasizing the negative aspect of an individual's epistemic integrity when what he claims to know is spectacularly wrong. Much as the Yoruba is not contented with the defective acquaintance with the solipstical achievement of an individual in regard to knowing, a first rank conception of

knowing is average which teaches that variety of individual's epistemic achievements are false, as a number of them are traceable to uninvestigated intuition.

For an indication of the ill consequences of imparting the entirety of one's individuality on the quest to know, let us turn to <u>Ifa</u>, among the Yoruba whose consultancy need not be fatal to sufficiency about intuitive belief. There are many accounts of <u>Ifa</u>, however, we are inclined to its characterisation as "presentation of one's aspect of Yoruba culture, in respect to knowing." With this claim concerning the tenor of <u>Ifa</u>, we must submit to the optimism of Wande Abimbola that there is "the need for every person to consult Orunmila from time to time." Orunmila is another name for <u>Ifa</u>, though an individual whom is reputed to have turned out the mass of compilation to be frequented and consulted in terms of knowing, thereby ensuring a secured footing for Yoruba as a paradigm of cultural order.

It is an ideal to aim at intuition, but in most cases, it is unattainable. Let us see how <u>Ifa</u> could be a valid check on intuition, thus, exhibiting another dimension of average knowing. An impulse is given to it by Wande Abimbola in a passage he quoted from <u>Ifa</u> Corpus.

Ori buruku ki wu tuulu
Aki da ese asiwereee mo loju-ona
A ki mo ori oloye lawujo
A dia fun Mobowu
Ti I se obinrin ogun
Ori ti o joba lola,
Enikan o mo
Ki toko-taya o mo pe'raa won ni were mo
Ori ti o joba lola
Enikan o mo.³⁵

A bad head does not swell up.

Nobody knows the foot-prints of
A mad man on the road.

Nobody can distinguish the head destined
To wear a crown in an assembly.

Ifa divination was performed for Mobowu
Who was the wife of Ogun.

The head that will reign tomorrow,
Nobody knows it.

Let husband and wife stop calling
Each other names.

The head that will reign tomorrow,
Nobody knows it.³⁶

One interesting point at this juncture is that if we can be said to believe our knowledge-claims regarding intuitive appeal, why will one not be able to doubt them

as intuition regarding our aesthetic grips on one's <u>Ori</u> [Head] does not count on just what determines success. The <u>Ifa</u> passage cited above suffices for the invalidation of intuition as a prevalent superstition that an individual may owe to his personal existence.

A timeless feature of a culture is retention and transmission. Among the Yoruba, knowledge-claim is secured by bringing it into confrontation with a theme or fundamental experience by emphasizing sharing and consultation as the basis for all-knowing activities by putting them on a cultural footing. Thus, a recognition of the common ground shared by the problems of the explication of individuality and the explication of averageness proves the falsity of the entire dominance of intuitive appeal as a factor to take into account in knowing.

The example of intuition is meant to show how its reliance can involve a flux of experience we may nevertheless be in constant intuitive touch with. This suggests that <u>Ifa'</u>s consultancy as a fabric of knowing is far removed from how we ordinarily understand knowing. For those who are inclined to update their understanding, whatever we may hold as to the ontology of <u>Ifa</u>, it provides important way in which the edifice of knowing fits into a template for defeating pseudo-problems in the search for truth.

In emphasizing the various aspects and dimensions of average knowing, <u>Ifa</u> is a broad strategy that is articulated along certain essential dimensions and therefore come close to a clarified status. For knowing achievements to be possible, these dimensions put <u>Ifa</u> in a settings that takes the intentional descriptions of the methodological template of academic disciplines as precondition for knowing. Knowing is approached from the presupposition of dialogic, and in stressing this dialogical reading of <u>Ifa</u> shows that knowing is average from the start. Thus, in asking: what is knowing? means a disengagement from individualistic category exhibited by detachment. On the basis of such disengagement, the following is intended:

a. What is the statement of the problem and what is it about? If a introduces an indicative dimension whereby subject-matter remains a core knowing commitment. Hence, the subject-matter is often the case, the fundamental concern that motivates the quest for knowing. This may include: success, marriage, wealth, illness, conflict, the future and the past.

Along this path, knowing is a kind of dialectical imperative whereby knowledge depends on the interaction between how the unsophisticated individual views knowing apart from the involvements of <u>Ifa</u> and the explanations if <u>Ifa</u>, often expressible in poem, rather than in propositions. The states of arousal in the individual which may include cause of illness, barrenness or misfortune is pushed a bit the dialectical imperative that <u>Ifa</u> has a yet higher role in the explanation of these bits of arousal. According to Kola Abimbola,

<u>Ifa</u> divination is one important means of diagnosis.....the priest establishes a link between the Client....., in a series

of steps. After a series of invocations, the priest divines to determine the Odu [i.e, book] of the Ifa literary Corpus from which to select a poem.³⁷

From above, the importance of <u>Odu</u> [i.e. book] provides a possibility for further involvements of other priests which might pave the way for further explanations, illuminations and clarity on the statement of the problem.

On this point, while the individual can be recognized as a category in regard to the arousal of the statement of the problem, which presupposes explanation, knowledge cannot be reduced to the individual. Much depends on what counts in the conception of a problem and its therapy. The necessary consequence of therapy and explanation from Ifa undermines the status of epistemic realism from which knowing is a substitution and replacement by the absolute category of certainty, so far as the initial epistemic status of the problem in question remains unaffected. Averageness, is thus required when the practice of giving and getting knowledge forecloses any effort at some sort of either absolutist or subjectivist reduction of knowledge-claims. What needs to be entrenched in any cultural practice regarding knowledge is averageness. This stands in opposition to the absolute category of certainty in traditional epistemology where the knower cannot question further beyond the direction indicated by a simple showing of solipsism. Knowing, construed as contingent upon Ifa has averageness intended, rather than either the subjectivist or absolutist.

b. What is its thesis and the kind of effect it has on the individual.

This point stresses the average character of knowing. In attempting to illuminate the distinctive priority of <u>Ifa</u>, it requires everyday interpretation. <u>Ifa</u> is inseparably intermixed with everydayness, as the Yoruba will urge that, <u>bi eni se ri, ola ko ri be ti ofi babalawo ndifa ojojumo</u>. Tomorrow may not resemble today which forces a diviner to consult <u>Ifa</u> everyday. This is more than a tentative conclusion that what the Yoruba wants to depose is the absolutist category of knowing. Everydayness interpretation by <u>Ifa</u> can create divergent moods ranging from spirit of sacrifice to patience and the like. The thesis is that only good character unites the individual with Olodumare (the Omniscient).

Conclusion

By way of conclusion, we must make some clarifications such that the Yoruba account of knowing can be put on a more cultural footing. <u>Ifa</u> is personified as a consultant, with the additional character of a divinity likened to an omniscient. Specifying knowing in terms of everyday clarifications and average involvements requiring consultation is not the problem, but the real problem consists in how to locate the true epistemic need, not the desire of the individual. These points simply show that the scope and target of both everyday analysis and average conceptions of knowing

differ. In formulating an account of knowing, we end up getting different notions. The Yoruba overall cultural scene, however, admits that knowing requires that the individuals should pay attention to the post-every day and post-averageness by developing a theme that is uninfected by the vagaries of everydayness and averageness. Iwa (that is, that which endures, or character.) Its distinctive priority among the Yoruba indicates the importance of not leaving open what becomes of knowledge when it is presumed to be acquired.

The Yoruba is deeply influenced by <u>Iwa</u>, because anything an individual <u>mo</u> [know], must be <u>otito</u> [that which lasts and endures in time]. <u>Iwa</u> is not only a search, but represents a standard of well-being in knowledge, which is the only ground the individual can be united with the omniscient. When the individual is united with the omniscient, all that one might have acquired in the quests for knowing becomes an unnecessary appendage. An <u>Ifa</u> poem quoted by Rowland Abiodun has this viewpoint in mind:

Iwa, Iwa la n wa o Iwa Ire gbogbo ta a ni Ta a niwa Ire onire ni Iwa, Iwa la n wa o Iwa.

Iwa, Iwa is what we are looking for All the good things of life which a man has, If he lacks good character They belong to someone else Iwa, Iwa, is what we are searching for.³⁸

The important ending to this is that, knowing should not be viewed in the contexts of either everyday analysis or average conception, but a fruitful specification of one's epistemic aspiration. Thus, as an example of a cultural other, the Yoruba is exemplary.

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Conceptual Ideas About the Creative Elite as a Creator of Creative Social Space

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Abstract

This study reveals the idea that the socially multivariant processes of the present cause interest in the creative elite, who are constantly searching for new patterns and landmarks, which can be the basis for the development of all structures of society as a whole. The article discusses the main theoretical and methodological approaches to the study of your elite. It is determined that the existence of various methodologies for the study of the creative elite requires a socio-philosophical view of the architectonics of spiritual production, which also makes it necessary to integrate the theoretical and methodological principles into the conceptual whole of the research. It is revealed that the need is a conceptual understanding of the creative elite, which also serves as the basis for the formation and formation of a special creative social space.

It is especially emphasized that it is possible to make up ideas about the creative elite as a special social space on the basis of narrativ as an interdisciplinary methodological construct in the modern social sciences. From the given methodological foundations, the idea of interpreting consciousness as a set of texts, recognizing the possibility of multiple interpretations of each text, and the vision of society and culture as a unity of blurred, decentralized structures in postmodernism are highlighted. The conclusion is that it is possible to consider the creative elite as the bearer of a set of certain social, ethical, psychological, spiritual connections and relationships. The functional characteristics of the representatives of elites are the organizing force that makes any society a coherent sociocultural system. Dynamic creative associations and organizations involve wide public circles in the process of creating new values and actualize their inner potential, from which a new cultural layer is born - a space of positive self-realization of the individual.

Keywords: elite, creativity, creative elite, phenomenon, narrative, social space.

Introduction. The social multivariate processes of the present arouse interest in the creative elite, leading a constant search for new designs and landmarks that can be the basis for the development of all structures of society as a whole. The priority of social technologies requires a continuous social and philosophical understanding of the architectonics of social and spatial arrangement, which makes it necessary to integrate disparate theoretical achievements in the study of elites into a single space of social and philosophical research.

Despite a wide range of research works in the field of cultural policy, spirituality and elitism, synthesizing various data and building the concept of creative possibilities and effective activities of the creative elite.

The degree of elaboration of the problem. Various studies have revealed questions concerning the influence of the elite on social processes. The analysis of the phenomenon of the elite as a creative active minority in the context of the development of culture and civilization is made in the works of O. Shpengler, A. Toynbee. An important role in the development of understanding of the creative elite also belongs to N.A. Berdyaev and H.Ortega-y-Gasset. The ethical-philosophical and cultural studies of M.M.Bakhtin, V.S.Bibler, M.Veber, A.F.Losev, V.V.Rozanov, essential for understanding the phenomenon of the creative elite in the context of the creative role of culture in the formation of personality are M.S.Kagan, D.S. Likhachev, G.S.Batishchev, Y.Habermas and others. In the works of T. Adorno, S. Bulgakov, G. Markuse, F. Schlegel, M. Horkheimer, the problems of the creative elite are touched upon on the basis of the opposition of "mass" and "elite" art.

In general, it is possible to single out from the works that one of the factors that intensify interest in the study of the creative elite, are the processes leading to the increasing role of the example of the creative elite in modern practice. At the same time, according to Z. R. Valeeva, there are few works that study the phenomenon of the spiritual and creative elite from a social and philosophical point of view. This phenomenon in the framework of the post-non-classical paradigm is also a little studied. The need for this study is due to the use of an interdisciplinary integrated approach to the problem of the activities of the spiritual and creative elite, analyzed from the point of view of social and philosophical discourse. Also, the conditions that are necessary for the transition of the existence and functioning of the spiritual and creative elite to a new level corresponding to the post-industrial level of development of modern society turned out to be insufficiently studied [1].

Insufficiently lit parts of the problem. The need is a conceptual understanding of the creative elite, which also serves as the basis for the formation and formation of a special creative social space.

The purpose of the study is to reveal the conceptual ideas about the creative elite and to identify its main functional characteristics. To determine the possibilities of the creative elite in building a creative social space.

The main content (research methodology). In the study of the creative elite, the theoretical and methodological basis was the combination of a number of scientific

approaches. He was composed of the fundamental ideas of structural and functional analysis, existentialism, philosophical anthropology, social psychology, theory of communicative action. It is highlighted that the socio-philosophical analysis of the phenomenon of the creative elite demonstrates the connection of this phenomenon with the idea of spiritual perfection; The phenomenon of the creative elite should be considered in close connection with the analysis of the concept of creativity, as well as with the understanding of the personality characteristics of the representative of the creative elite.

From the position of V. Golik we single out that it is possible to consider the creative elite in a more special social context than was previously done. The theory of elites on the basis of the integration of sciences makes it possible to study the elite, based on the idea of the systematic nature and orderliness of the historically established society, its definite orderliness and evolution [2].

Despite the presence of flaws in the value approach, preference is given to it, rather than to the functional approach, since the personified elite is not a functional mechanism for solving problems, but a historically unique stratum, conscious of its responsibility for producing the ideological and ideological horizons of social development. From the theoretical and methodological foundations of the research by Z. R. Valeeva, we single out a combination of a number of scientific approaches, but at the same time, a synergistic approach is used in studying the functioning of elites in the conditions of a modern transforming community, a phenomenological approach to understanding the slice of modern culture with a heuristic and creative resource manifested in its phenomena, which can be used in the study of innovative space, the interaction of society and the creative elite .. [1].

In our opinion, the existence of various methodologies for the study of the creative elite requires a socio-philosophical view of the architectonics of spiritual production, which also makes it necessary to integrate the theoretical and methodological principles into the conceptual whole of the research. In this regard, it is possible to refer to the works of A. Schütz, who concludes that each researcher receives a model of the social world, or, better to say, its reconstruction, and this model is fully consistent with the postulate of a subjective point of view And this type is designed in such a way as to perform only typical actions, then objective and subjective elements will be combined in the formation of single actions. On the other hand, the formation of a type, the choice of a typical event, as well as

elements considered as typical, are all conceptual terms that can be objectively discussed and are open to criticism and verification [3, p. 110].

The main content (Discussion). For the formation of ideas about the creative elite as a holistic phenomenon, it becomes necessary to highlight such qualitative characteristics that would be objective, independent of the subjective inclinations and preferences of various researchers. In our study, we draw attention to the following theoretical and methodological foundations, in fact, already traditional and generally accepted, and indicate that it is necessary to synthesize them and build a concept based on the idea of the creative elite as representing a particular social space.

According to P.A. Sorokin, people who belong to the highest stratum in any one respect usually belong to the same stratum in other parameters ... [4]. From the arguments of V. Pareto, it follows that in society, along with the elite, there must always be a "counter-elite" (potential elite) - persons who, by their psychological qualities, could enter the elite, but did not enter through their social status. The change of elites allows you to maintain social equilibrium, because it ensures the coming to power of elites who have the qualities demanded by the social situation [5, p. 35].

To highlight the functional characteristics of the creative elite, refer to the following provisions. Thus, according to LK Vasilyeva, the functional characteristics of members of the elite are the organizing force that makes any society an integrated social system, if we consider the signs of integrity, first of all, the presence of any common goals and actions aimed at their achievement [6]. The elite, as a social subject that preserves existing values or forms new ones, ultimately determines the fate of the community to which it belongs [6].

Based on the thought of S. I. Shelonaev, the phenomenon of the creative elite should be considered in close connection with the analysis of the concept of creativity, as well as with the understanding of the personality characteristics of the representative of the creative elite. In this context, the creative elite can be seen as the bearer of a set of certain social, ethical, psychological, spiritual connections and relationships. In the case of the creative elite, its impact on different aspects of society's life occurs in the ideal sphere at a more complex level, and the essence of this impact is determined by the essential "value" characteristics of the creative elite representatives [7].

From the study of E. A. Gorchitskaya, we draw attention to the position that associations of elite, intellectuals and intelligentsia are an integral part of the socio-cultural sphere of modern society, both in the capital and in the regions, at the same time being a form of consolidation, an adaptation mechanism of co-optation and social self-organization, characterizing the level of development of civil society [8]. Representatives of the elite, intellectuals, intellectuals for the implementation of effective communication activities actually create around themselves a social interaction space, allowing them to go beyond the usual existence. This space has a positive effect on the state and development of society [8].

In the theoretical and methodological foundations of the research of N. V. Kovalyunas the approaches of classical and modern elitology and, on this basis, the general characteristics of the elite as a social phenomenon are given (as a first approximation), the development of this social phenomenon is traced - the elite in the structure of society both theoretically and and in historical aspects. Methods of comparative analysis, typology, classification and systematization are used to build a social typology of elites and to identify the peculiarities of the socio-philosophical understanding of the processes of social differentiation and stratification, as well as to study theoretical and methodological problems associated with the formation and development of the elite of Russian society. Regarding the technique, it is diverse and largely traditional - these are general scientific methods of cognition (analysis and synthesis, abstraction, induction, deduction, analogy, etc.) [9].

We pay special attention to the views of Z. R. Valeeva in the context of highlighting the socio-philosophical foundations of building the space of subject-subject relations of the elite and society. From the point of view of social and philosophical ontology, the creative elite appears to be the creator of social reality, and at the level of personal being, in the course of its activities, personal self-construction also occurs. The value of having information in this unstable system gives way to a creative ethos and ability to act spontaneously in fundamentally new uncertain conditions. Therefore, the qualities that distinguish the spiritual and creative elite of the industrial and post-industrial eras are the skill of social improvisation, the possession of charisma and the skills of competent self-presentation, creativity and dialogue [1].

From the theory of P. Bourdieu we single out the idea that the creative elite is characterized by "the desire to accumulate knowledge and skills is inseparable from the search for recognition and the desire to create a name for oneself." The specificity of the field of cultural production consists in the combination of two components: power and semantic relations So, for example, in the field of literature, writes P. Bourdieu, as well as in any other field of cultural production, there is an opposition of "masters", carriers of tradition, representing dominant trends and genres, - to "beginners" working in new, marginal genres and styles [10, p. 131].

The ideas about the creative elite as a special social space can be made on the basis of the Narrativ as an interdisciplinary methodological construct in the modern social sciences. This provision supplemented, according to I. V. Trotsuk, the requirement of a "linguistic turn" to consider research in the field of social, political, psychological and cultural problems as linguistic [11, p. 41 - 48]. In the narrative problematics, the postmodern extremely aggravated the problem of the text, pointing out that it is impossible in principle to unambiguously assess it, and the problem of cognition, noting the indirect relation of textual reality to the outside world that it "displays"; By its vagueness and uncertainty, the postmodern identified the human problem — since many people generate many interpretations, "instead of building a theoretical model using their own language and following the paths of the rules already set, the researcher has to study the social world in its fragmentary state" [14, p. 41 - 48].

From the given methodological foundations, the idea of interpreting consciousness as a set of texts, recognizing the possibility of multiple interpretations of each text, and the vision of society and culture as a unity of blurred, decentralized structures in postmodernism are highlighted.

Thus, based on the appeal to the narrative and the creative ethos, it is possible to single out the following. In the new format of interaction, the power of rigid directives of the elite is abolished. The traditional "direct" interaction of society and its elite is replaced by indirect. The world of the everyday culture of the majority (its modern myths, images, texts) "slides" along the edge of the topos of elite culture, including values and models of high art.

Building a social space in which the mutual interests of the spiritual and creative elite and society would be realized in a new way, according to Z. R. Valeeva, implies the creation of conditions for the voluntary involvement of representatives of society in the processes of creative and intellectual self-realization, as well as the self-improvement of elite representatives not only in connection with his immediate professional activities, but also in

the course of joint creative activities with representatives of society. The main driving force behind the development of space are public initiatives that are not artificially introduced "from above", but arise in the depths of public life. The construction of the innovation space is based on the following principles: the unity of the diversity of cultural development, implying an active public circulation of creative ideas; dialogue of cultures and civilization communities; development of information and communication structures and the use of the interactive potential of the subjects of intercultural dialogue, making any national culture more open and capable of self-preservation and development at a new level According to Z. R. Valeyeva, the conceptual foundations of building an innovative model of interaction between the spiritual and creative elite and society are: rejection of elitist decision-making and activity manifestations, appeal to anonymity and intuition to encourage public associations and tdelnyh individuals to exercise socially significant initiatives; taking into account the pluralism of the modern world, which includes many criteria of stratification (ethnicity, denomination, age, professional status, education, personal preferences, political views, etc.) [1].

Based on the ideas of Z. R. Valeeva, P. Bourdieu, I. Trotsuk, it is possible to propose and substantiate their Conceptual model of constructing a creative social space with the amendment that the influence of the creative elite on different aspects of society's life occurs in an ideal sphere on a more complex level, and the essence of this impact is determined by the essential "value" characteristics of representatives of the creative elite.

In our opinion, the creative social space, created by the creative elite, necessitates the identification and definition of the logical structure of space (subjects, forms, conceptual bases, results) and its temporal (procedural) side; ideas that the Creative Space Model should be appropriately flexible, dynamic, multi-cultural, variable, which allows the elite to interact with people with different ideological preferences.

Conclusions. On the basis of the analyzed material it is possible to make certain generalizations and conclusions.

It is possible to consider the creative elite as the bearer of a set of certain social, ethical, psychological, spiritual connections and relationships.

Without a creative elite, neither the flourishing of culture nor education is possible, the position and quality potential of the creative elite are connected with the issues of national identity, the quality of communication, the moral and spiritual atmosphere in society itself.

The functional characteristics of the representatives of elites are the organizing force that makes any society a coherent sociocultural system.

The creative elite acts as an independent objectively existing phenomenon of social existence, which plays an important role in the life of society, has a diverse impact on both the spiritual and other components of the life of the elite and society as a whole, and therefore has the opportunity to be in the construction of a creative social space.

Dynamic creative associations and organizations involve wide public circles in the process of creating new values and actualize their inner potential, from which a new cultural layer is born - a space of positive self-realization of the individual.

Prospects for further research. As a prospect for further research of the creative elite within the framework of the general theoretical orientation of the creative elite, one can cite an analysis of the content and mechanisms of the creative elite influence both on the elite itself in a broader sense and on the society as a whole within the framework of the dichotomy post-industrial and information society.

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Socio – Phylosophical Creation of the Concept of "Soul": the Experience of Postmodern Reflection

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Abstract

In the article it is noted that in the socio-historical period, the concept of "Soul" has always been quite open and controversial for various reasons for the idea of it. Even in the twenty-first century, the conceptual essence of the notion of the "Soul" phenomenon has not been fully reproduced.

The methodology of research, which leads to the consideration of the concepts of philosophical and socio-philosophical, but with the intention intentions (intention in the direction of thought) of the spiritual aura, is stipulated. It turns out that in methodological dynamism, the constant manifests itself through the triad of its components: the spiritual foundation, philosophical, social, which goes into one - the spiritual-philosophical and social, and this tendency of postmodern and neo-postmodern - is a definite futuristic point.

The conclusions state that the concept of the phenomenon of the soul functions on the verge of figurative and abstract, which is the one that is most prone to comprehensiveness. It is clear that only the "technical" side of the concept is not fully able to meet the needs of philosophizing, because it is, if it were "the cornerstone" and is a feature of postmodern, and the way out of this "closed corner of the stop" in neo-postmodern toleration - sensory consideration -emotional The basic concepts of the "mind of the soul" are the manifestation of the nature of the phenomenon of the soul, having the status of recognition through the confirmation of its authenticity, and moreover - this rekognitivnost (recognition) of the concepts of the phenomenon of the soul has the ability and the ability to recognize the "traces" of past perception, which already speaks of that , that there is an opportunity to tolerate - the concept of retention (holding) the phenomenon of the soul in the actual given point temporal, namely in true perception.

Key words: concept "Soul", phenomenon, symbol, image, text, concept.

Introduction. in the socio-historical periods, the concept of "Soul" has always been sufficiently open and controversial for various reasons for the idea of it. Even in the twenty-first century, the conceptual essence of the notion of the "Soul" phenomenon has not been fully reproduced.

Obviously, the question of the phenomenon of "Soul" is repeated from century to century and goes along the lines of the past - to future new questions about the Soul, and especially about the possibilities of its knowledge. And taking into account such views, raising the question of the spiritual direction of the phenomenon of "Soul" in conjunction with social is especially desirable today, and especially the question of the "Soul" from the side of its natural, spiritual, and social nature.

The degree of elaboration of the problem. In the history, the problem of spirituality in man - her "Soul" is sufficiently developed at different levels of social existence, but always remains an open niche - the correspondence of the existential and objectified in the forms of information comprehension of its essence. The social philosophy of the Soul is the subject of the attention of Socrates, Plato, Aristotle, Thomas Aquinas, R. Descartes, Spinoza, J. Locke, G. Hegel, P. Florensky, and many others, and in the artistic quest - its certain "visualization" is in the works V. Kandinsky, P. Filonov, P. Picasso and other artists. The fundamentals of the propositions of the "concept", which is connected with the knowledge of the spirit, and in particular, the "Soul," after its interpretation by P. Abeljar, are proposed in the works of N. D. Arutyunov, S. A. Askoldov - Alexeyev, S. G. Vorkacheva, D. S. Likhacheva, S. X. Lyapina, V. P. Neroznak, M. V. Pimenova, J. S. Stepanova and others. In fact, with regard to language and concepts - from the Christian tradition of cognition, the concept appears an important unit of cognition in general, and even that which can not be comprehended only by mental concepts, but it is possible to structure even fragments of sensory - existential.

In general, modern reflections on the "Soul" form a conception of a fundamentally different from the ontological-naturalistic vision, where the place of temporality of the archetype of the Soul, its activity on the future social determinant orientation appears. The problem of knowing the phenomenon of the "Soul" is increasingly covered in every sociohistorical period, but, moreover, it is not just about the direct discovery of the nature of the "Soul," because here there is not a direct appeal to the question of death, immortality, God.

Insufficiently lit parts of the problem. One of the most relevant and insufficiently solved questions is the formation of the concept of "Soul" in the context of its sociophilosophical interpretation and suggestion.

The purpose of the research is to consider the origins of the socio - philosophical conceptualization of the "Soul" phenomenon and to identify their specifics. To substantiate the way of creating the concept of "Soul" based on the experience of postmodern reflection.

The main content (research methodology). The methodology of this review leads to the consideration of the concepts of philosophical and socio-philosophical, but with the intention intentions (intention in the direction of thought) of the spiritual aura. The ideas of K. Jung

include an infinite conceptual force that is genetically subject to affirmative consideration on the part of the elements of the concept, and this action is reduced to the general conceptualization of the Soul as a phenomenon [1].

In order to indicate the situation, there is a need to note that the concepts of the phenomenon of the soul before the genesis (emergence and further development), namely, the course and the action of thought about the concepts of the phenomenon of the soul, begin with the temporal "to the thought" of this phenomenon, which according to J. Deleuze and F. Guattari are tolerated with the following logical sequence: "The concept is supposed to be not like one concept has the ability to refer to others, and as all concepts in general send references to some non-conceptual understanding." This state of the concept, in the temporal format, is already evident - as it is not a concept, and it has an outline of the phenomenon, that is, in a situation where the concept of its development has already crossed its boundaries and becomes a subject point, it is probably the temporal future of the concept, but that the question of planeness, whether planned or planned in the given situation, the manifestation of the planned planned tolerates in the opposite direction - when the concept almost rejects the "veil" subjective. The noted "polymorphic (multidimensional) curiosity" of philosophical thought is a special and inherent feature of the neo-postmodern, which includes the most recent solution to the phenomenon of the soul [2].

With such methodological dynamism, the constant manifests itself through a triad of its components: the spiritual foundation, the philosophical, social, which goes into one - the spiritual-philosophical and social, and this tendency of postmodern and neo-postmodernism - is a definite futuristic point. The course of philosophical thought in its genesis has the form of uncertainty boundaries, even though the position of thought when the corresponding logical constant is created, and in this variant - the search for the point of logical stop, but scares the state of logical technicism. And what about novelty, then its definite revolutionary nature is actually limited only by the illusion of the existence of another semantic reality, and in the end, the "search game" is just a search for a new one.

Consideration of the methodology of the main philosophical and social conceptual approaches to the phenomenon of the soul is to establish the corresponding results, namely, in the research established an act of searching for a "new" method for identifying the foundations of the nature of the soul, its eternal mysterious nature and the principles and laws

of its action in society, the result the above-mentioned searches using the methods of empirical and theoretical research became the act of spiritualization, which naturally leads to the search for the "method of the soul", during the study revealed the possibility of introducing a concept point the phenomenon of the soul is a temporal point of the neo-postmodern, which allows in the future to explore certain aspects of the phenomenon of the soul in the form of concepts, the format of the study of methods of cognition of the soul was completely saturated with all the penetrating comparative effect of the comparative method, which was used in tandem with other methods (historical, eclectic, dialectic, approximation, analysis, reconstruction, neo-postmodern synthesis) and in their various tolerances, the above-mentioned results appear in the basis for the further course of research in the act of the philosopher ko-social conceptualization of the phenomenon of the soul. Moreover, the use of the imperative method conceptually includes introspection acts of introspection (look inside), which already as a method allow to have an idea about the essence of the soul derived from the status of the phenomenon, that is, about its pure structure.

In our opinion, there is an option where the renewed genesis of the concepts of the phenomenon of the soul is possible only as a socialization of spiritual intrinsicity (the concept of intransitivity of the phenomenon of the soul), that is, the socialization of the spiritual inner experience, and then anti-theatrical (the discovery of opposite definitions) - acts as "a game in life - in life ".

The main content (Discussion). From the birth story of the Soul problem, one can distinguish the following. So, with regard to the concept of the power of the phenomenon of the soul, where the nature of the sources of this power is determined not one-sidedly, Lucretius Car says: "The forces of the soul, along with the body, always grow ... spirit and soul are closely linked together ... and they represent one and the same essence" by the way - the power of the phenomenon of the soul directly and completely correlates with the power of the phenomenon of the soul. The position borrowed by Lucretius Karr that "the soul is born with the body" definitely tolerates and confirms the idea that the soul is genetically as the spiritual basis of the body and possibly matter in general has the opportunity to have a scientific status, and in the rest, a scientific verdict in the form of concepts, namely - matter - the earth - and when it is filled with the soul, it is also filled with the spirit [3, p. 79].

F. Nietzsche has a characteristic of the ugly soul, and he makes an approach to explain through art, namely, "The art is set too narrow boundaries, if they require that only a well-ordered morally balanced soul should have the right to express it. ... there is the art of a ugly soul, along with the art of a beautiful soul; and the most powerful actions of art - the ability to shake the soul ... - perhaps, best of all was able to do this kind of art "[4, p. 107].

An ugly soul is one that does not converge with any associative form, because as everything is visible, it has some kind of imagery, and the image of the invisible soul must have some kind of impulse, one of them is the action, that is, the soul is recognized in action. An ugly soul, having in its nature a systemic failure, compared with a figurative soul, cultivating it as a complex, - an ugly soul independently regulates the general relaxation of the aura of one's soul, but it is not yet the final verdict for the soul. The question of whether there is some kind of variability in concepts from ugliness to imagery and vice versa, then the answer will be - yes, it all depends on how temporally this process will delay one position or another, before that and the general goal of socializing the phenomenon of the soul - to action . The ugly soul in its basis tends to surface, because it is deprived of figurative content, that is, it has no clear image, although ugliness has the ability to have some kind of imaginative toleration.

The approach to the "Soul" in K. Sakovich presented by him, tolerates it - such as: "Anima est actus corporis physi potentiam vitam habentis (soul is the actual state of an organic physical body with the ability to live)" and it is the "actual state of the soul "Brings to memory of the Ukrainian ethnos to the national kinship and its consciousness [5].

The German word "soul", Seele, through its Gothic form Saiwal, writes K. Jung, is closely related to the Greek term meaning "moving", "iridescent" - something like a butterfly flying from flower to flower love In the Gnostic typology, the "spiritual man" stands between the "spiritual" and, finally, those low souls who have been roasting in hell for all eternity. Even a completely innocent soul of an unbaptized newborn, at least, lacks a vision of God. For savages, the soul is the magical breath of life (hence the "anima") or flame. The non-canonized "sayings of Jesus" correspond to this: "He who approaches me, approaches fire". According to Heraclitus, at the highest levels, the soul is fiery and dry. Vital animated essence. The soul is the life principle in man, that which lives from itself and causes life. Then God gives Adam the breath of life so that he becomes a living soul. To have a soul means to

be at risk of life, because the soul is a demon - the giver of life, whose elf play surrounds the person from all sides.

In the concept of C. Jung, the understanding of the Soul is based on the idea that the human consciousness has not yet reached an acceptable degree of integrity. Among people whose consciousness is at a level of development that is different from ours, the "soul" (psyche) is not felt as one thing. Without a doubt, even at the so-called high level of civilization, human consciousness has not yet reached an acceptable degree of integrity. There are many symbols, which by their nature and origin are not individual, but collective. These are mainly religious images [1].

In fact, C. Jung believed that ontogenesis repeats phylogenesis, the emergence to the surface of consciousness of symbols of the past era meant for him to return the unconscious to this moment of the development of the collective soul. The concept of the Soul among primitive tribes emerges from the fact that man has in addition to his own "forest soul." And that this forest soul is embodied in a wild animal or in a tree (druids), with which this or that person has some mental identity. In a number of tribes it is believed that a person has several souls at once; such faith reflects some primitive ideas that each person consists of several interconnected but distinct entities. This means that the human psyche is far from complete synthesis, on the contrary, it is too easily prepared to disintegrate under the pressure of uncontrollable emotions. From the concept of the Soul, from the methodology of C. Jung, it follows that in the study of the Soul, the word "projection" does not even fully fit, since nothing from the soul is thrown out of its limits. Rather, on the contrary, the complexity of the soul - and we know it as such today - is the result of a number of acts of introjection. The complexity of the soul grew in proportion to the loss of spirituality of nature. A person likes to believe that he is the master of his soul. But as long as he is not able to control his moods and emotions or to realize the myriad hidden paths through which unconscious factors sneak into his actions and decisions, man will not be the master of himself. These unconscious factors owe their existence to the autonomy of archetypes. But the general underestimation of the human soul is so great that neither great religions, nor philosophies, nor scientific rationalism expressed a desire to look at it twice. The existence of something in our soul is recognized only if it contains somehow conscious content. We can talk about the unconscious only to the extent that we are able to ascertain the presence of such contents. In the personal

unconscious it is mostly the so-called emotionally colored complexes that form the intimate mental life of the individual [1].

In our opinion, the entire scheme of filing the concept of the Soul in conditions - its figurative perception is the most appropriate and understandable and looks more or less abstract, but is on the verge of figurative and abstract.

As to the main directions and goals, the phenomenon of the soul having passed its point of creativity (creation) is in a state of recreation and neo-repression. And recreation and neo-repression with the prefix "a" in nature, reduces the soul to the rest of the naughty, in order to control it from the outside. These features of utilitarianism were noted in the 20th century by R. Bart, he writes: "... utilitarian (utility) psychology puts all the states that are experiencing consciousness behind the quotes, and claims, at the same time, to explain the actions of man with some initial deduction of its inner world, it postulates "soul" - judges a person as "consciousness", but first of all, meaninglessly and comfortably describes it as an object "[6].

Given the phenomenon of the soul, according to Yu.G. Legenko, is determined in her being and in her co-existence with other phenomena, hence the reflection with all. The derived concepts - creations, recreation, neo-repressions, as well as concepts of being and co-existence confirm the temporal-conceptual essence of the phenomenon of the soul of Ukraine, from which the concept of its freedom is determined, the differential ontology of which must have and reflection in the Absolute, because the soul does not have and can not be lonely It is the attraction for the unity of the phenomenon of soul and spirit - "and it creates a tense field of spirit, psychic, humanity ... such a recreation - this is, indeed, a unique world, a unique space - and spiritual and spiritual" [7].

It is possible to draw attention to the fact that it is precisely for such a course that we determine concretely all the known concept elements of the phenomenon of the soul, and so the main connecting elements and highways that create order and give effect in the aura of the soul - the concepts of the spiritual foundation, and the concepts of matter, - the first and second create social concepts that temporally are in the field of its existence-action under the condition of temporality in action and existence. And so, what spiritual concepts can be in the concept of the phenomenon of the soul? An unmistakable answer can be that all that is filled with (sanctified) spirit, and more specifically, the spirit itself, as all present (let's call it a space), that is, the spirit around, plus all the concepts - elements that are filled with matter and

they act according to spiritual laws, are consecrated -the matter of inspiration, it is likely that a person should be attributed to this series, because the soul is given to it - as, the basis and not the element of human action, or the reason given to a person is motivated. Such, this position is ideal, rather it is an exception, but it is, and all this should be directed. The actual concept of a gift, as a relief, has its temporal and temporal image in conceptual and preconceptual, the latter - the potential of the soul - a concept.

"Archeology" of the phenomenon of the soul has the property to direct and form separate elements in the genesis of the spiritual, holistic understanding of the spiritual constancy, and this intimate connection of the phenomenon of the soul with the spiritual all-acting forever, and understanding it even at the level of feeling "something" existing and incomprehensible completely completely tolerates himself. The presented act of knowledge appropriately tolerates through "ingenium", or the intention, which O. Khoma mentions in his work on the accumulation of intransigence. "Yes, ingenium lat. (inflexibility) is the power of the soul, or the intention, with the help of which the soul goes beyond its limits and develops from unknown to knowledge. So, ingenium explores the unknown "[8].

On the basis of distinguishing different positions and subcorporations of the Soul, we establish that thoughts and sentiments in some marginal situations have the ability to act within abstractions, for example, the same concept, and today the concept is already a concept. And this means that the concept is temporally - it is mediated by the last set of points in a point, and the theorem of the whole temporal is reduced to a single point.

The method of eclecticism with its supposed deliberate "fragmentation" and in fact has the features of superiority, since it, on the one hand, is capable of removing certain stereotypes, it is clear that if necessary, and on the other hand it is precisely the fact that stereotypes have the property of updating for the introduction of the newest, that is - that formed during the whole history of the knowledge of the phenomenon of the soul has the property as a tendency to update the more recent vision of the subject of research. The very process of study, with the ability to be filled with certain structured statements, eventually acquires the qualities of the neo-eclectic, sometimes it is the transition to the supposed truth in judgments, and sometimes the unpredictable, which eventually raises new questions, and opens up new ideas. It is clear that at the same time, everything is superfluous to reject and there is only the rest of the true - structured for the soul, then - spiritual and in terms of

content and in essence, which corresponds mainly to the tasks for the person - to harmonize the spiritual and the bodily.

The concept of suffering of the soul raises the question of whether it is an integral part of the universal concept of the phenomenon of the soul, it is necessary to answer - yes, because it is part of the whole community of souls. And it is impossible to avoid the concept of abstractness of the phenomenon of the soul, and since the question is too complicated, and if we assume that there are some aspects of the soul in the soul that are not even given or impossible to imagine, then it is clear that one needs to be satisfied only with the knowledge of that that they only have the opportunity to exist.

The use of the approximation method (nearest or approximation - the replacement of some objects by others) allowed "closer acquiescence" of the presentation of the basic philosophical and social aspects of the conceptual moves of the phenomenon of the soul, which increasingly led to the true nature of the phenomenon of the soul, and in this act the very concept as a concept - "Phenomenon" again manifests itself not as a whole phenomenon, but as an "incomplete phenomenon", because the phenomenon is already more open, and the course of the approximation method is already - a counter-phenomenological one. In the course of the study, the manifestations of a number of other concepts of "virtues of the soul" - the concept of "soul search", "soul search", which in the field of the phenomenon does not formally provide an answer as a hint, but already there is an answer to the process of action, which is also socially -philosophical course not only at the level of thought, but also the last in action, in what appear the acts of the moves of conceptualization in one position of the "pure soul".

In the same way it seems that the concept of the phenomenon of the soul functions on the verge of figurative and abstract, which is the one that is most prone to comprehensiveness. It is clear that only the "technical" side of the concept is not fully able to meet the needs of philosophizing, because it is, if it were "the cornerstone" and is a feature of postmodern, and the way out of this "closed corner of the stop" in neo-postmodern toleration - sensory consideration -emotional

The novelty to which came the neo-postmodern is the act of life itself, that is, that the concept of the phenomenon of the soul was alive and constantly changing, but should be

varied toward worthy virtues in temporal. Then in such a concept there will be a concept - "honor" - as honesty - virtue and - "faith" - as faithfulness - faith - trust, all of which are its virtues, under the influence of which the "aura of the soul" - shines in affairs the phenomenon of the soul. Already in terms of postmodern sensuality, more and more took its natural position, and on the other it could not be, because the emergence of postmodern itself itself owes the need to establish harmony. An application that the postmodern did not cope with its main task, or coped with it would be partially true, and the thesis - because postmodern if not fit into the temporal allocated to him is also true, but if in this regard to speak the phenomenon of the soul in general and about the phenomenon Souls are separate, then between these two phenomena tendency similarity in the laws and principles of existence.

In our opinion, the situation of modernism, in its revolutionary experiments, gradually, and sometimes not seen for itself, began to increasingly seek to deal only with the terrestrial interpretation itself attributed a verdict of distorted and inadequate completion. Such experiments always have the appearance of utopia, though, the initial ideas were and are in fact progressive, but of course the unnatural games lead to distortion, and the "shell of the obscurantist" is invisible - "the sky is hidden".

And so, on the plane of studying the phenomenon of the soul, at this moment, it is necessary to state the emergence of a concept that manifests itself through the method of conceptualization, namely, the concept of an agreement, for its clear vision was represented as a "point", because another representation in a more complex form will complicate the conceptual review. And since pure concepts do not follow the "verdict" of postmodern, according to J. Deleuze, J. Guattari,

and to that pure concept in this situation we are not interested, then the concept "point" is the most expedient, and he at this stage of the study is in a state of no light or dark point. The study represents us, as noted earlier, - the point in which the points are - these are points-concepts in the point-concept, and they are in order to distinguish them, by agreement in a tone. That is, some are light and others are dark. In this situation, it is impossible to do without imagery, and in the present situation, the image of the concept - a point unifying and in it the points are dark and bright. Further, by agreement light points will reflect - good virtues, and dark points - not good, it is clear that everything is due to the detection of the concept of the phenomenon of the soul [8]. Presented in the first stage, the variability in the

concepts (while still altogether, but it is clear that all the concepts are uniquely different) will in future acquire a multifaceted sound as much as possible, but it must be remembered that the easier it is to represent a concept, the easier it is to perceive and understand it. The nature of the concept was deliberately and unconsciously represented by philosophical thought throughout the history of philosophy, and it was in a peculiar way that the philosophy of postmodernism, which was tolerated by the idea, was not a relapse-transformational plagiarism, but rather a fully-fledged synthesis with elements of novelty.

We agree with T. Hundorov that solving the problem in the search for concepts through the conceptualization of logical methods and displaying logical thought in the text is the most ideal option, since everything can be fixed in a word that best reduces to the original in thought. So the text is fixation, and before that not only fixation, because it has something that does not forget it, and another such option - "Textuality often has a magical subtext, because it fixes the transformability of the image, and yet to that" exalted ", the higher mode of life that it is programmed by the aesthetics of "honesty with oneself" leads to faith, the movement in worthy future is precisely because of an idea as a truth recognized only by the soul [9].

Conclusions. On the basis of the analyzed material it is possible to make certain generalizations and conclusions.

All concepts of the phenomenon of the soul, having a single unitary spiritual basis, manifest themselves as an unparalleled and important part of it, that is, each concept thus creates the uniqueness of the color of the soul.

The connotation of the philosophical and social genesis of the phenomenon of the soul manifests itself as a self-regulating system which is completely patterned with a spiritual motive.

With any variational approach to the concepts of the phenomenon of the soul, constant invasion, as the basis of the existence of the soul and its nature, which asserts the truth of the soul, is followed.

The basic concepts of the "mind of the soul" are the manifestation of the nature of the phenomenon of the soul, having the status of recognition through the confirmation of its authenticity, and moreover - this rekognitivnost (recognition) of the concepts of the phenomenon of the soul has the ability and the ability to recognize the "traces" of past perception, which already speaks of that, that there is an opportunity to tolerate - the concept

of retention (holding) the phenomenon of the soul in the actual given point temporal, namely in true perception.

Prospects for further research. Attention to the concept of the Soul should be extended, since the most appropriate and understandable looks, although more or less abstract - Text its space of manifestation, balancing on the verge of figurative and abstract with the attraction - to the sign definition.

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The Foundations of Social and Personal in Archetypes in the Concept by K. G. Jung: A Phenomenological and Semiotic Presentation

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Abstract

The article discusses the concept of "archetype" on the basis of the provisions of CG Jung and draws attention to the ideas about archetypes that function in society. It is indicated that in modern theoretical and methodological positions of research, an amendment to the archetypical foundations of society and the possibility of studying it on the basis of identifying leading archetypes is essentially declared. On the basis of the phenomenological and semiotic approaches, attention is paid to methodologically determined ideas: the human dimension of the archetype; about archetypes prevailing in the "average" person; about the model of the "main" archetype.

In the generalized conclusions are presented the results that the archetypes have a social and personal in their grounds, and act as carriers of the meanings of the collective subject. Archetypes not only reveal and explain the existence of the world and man in it, but also create a certain emotional background. The mood of individuals and society immerses the consciousness of people in the general semantic and informational flow, which determines their involvement with those events and phenomena that are of particular importance for them and are contained in the archetype. Awareness and selection of archetypes allows you to analyze the stability of society in various crisis conditions and changes. The archetype representing the personality and social consciousness enables the design of social reality. In the context of defining the sustainability of social development, archetypes can be used. The need for rethinking and identifying significant archetypes is indicated, as the current state of social relations needs to develop a new holistic view of the forms and methods of interaction between social and unique being.

Key words: archetype, leading archetypes, archetypical foundations of society, symbol, sign.

Introduction. In society, the archetypes accompany the vital activity of society and man, have social and personal in their grounds, causing their polyvariance. At the present stage of research, it has been revealed that certain sociocultural values of society have an "archetypical" character, and culture contributes to the development of stereotypes, norms and rules that are passed down from generation to generation and support the existence of man and society. There is a preservation of the most valuable norms that promote equilibrium, and archetypes have this ability.

The relevance of the appeal to archetypes is connected with the fact that archetypes most significantly influenced and continue to influence the development of the personality and

social consciousness, causing the formation of archetypical social structures of social relations.

The current state of social relations needs to develop a new look at the forms and methods of interaction between social and unique being based on the identification of archetypes in their foundations.

The degree of elaboration of the problem. In the modern studies, the theoretical propositions of K. Jung are confirmed and it is emphasized that it is possible to describe the personality and the peculiarities of the public consciousness and to analyze the social reality. In M. Mark, K. Pearson, it is noted that every society hides the leading archetypes. In the work of Yu. V. Filippov, I. N. Koltsov, the presence in society of basic archetypes, which constitute the "quintessence of the national-historical myth, is noted. In its functioning, the archetype of T. Mann passes into the inheritance of generations, traveling among nations, and there is a timeless scheme, an eternal formula. Some researchers S. Gatalskaya, N. Fry suggest using the term "archetype" as the quintessence of mythical collective experience. The concept of cultural archetypes is presented in the work of A. V. Lubsky, the concept of the "social archetype" by Yu.M. Plyusnina.

In general, according to modern researchers, the archetype manifests itself as the accumulation of social experience, and in existing studies an attempt is made to create, above all, a projection of the identity of a social space based on pragmatic relations, which, in essence, hides the essential characteristics of archetypes for both humans and and for society itself.

Insufficiently lit parts of the problem. The necessity of rethinking the archetypes in a new social and philosophical manner was revealed, revealing in the theory of CG Jung their phenomenological and semiotic ideas, which reveals both the

The purpose of the study is to examine the archetypes of K.G. Jung and identifying their socio-cultural characteristics. The disclosure of the foundations of the social and personal archetypes in the space of phenomenological and semiotic representation.

The main content (research methodology). In modern theoretical and methodological positions of research, an amendment to the archetypical foundations of society and the possibility of its study on the basis of identifying leading archetypes has been significantly declared.

Based on our research concept, we pay attention to the methodologically determined ideas: the human dimension of the archetype; about archetypes prevailing in the "average" person; about the model of the "main" archetype. Analysis of the phenomenological unfolding in the consciousness of the archetypes of the collective unconscious, built on the basis of the study of culturological theory K. G. Jung, and the logic of thinking that is predetermined by her, according to S. A. Malenko, allows "to formulate a series of conclusions that justify that using the concepts" unconscious "," conscious "," archetype "," experience of consciousness ", Jung interprets the archetype not so much as a characteristic of the external ideal-material world, how much its human dimension, condition and mode of existence of the collective unconscious that is immanent to man "[1].

It is possible to characterize different cultures, considering "average" individuals with characteristic archetypical sets, in which each figure has its own priority. At the same time, the archetypes prevailing in such an "average" personality will be characteristic of this culture as characteristics of the mass consciousness. Studying social reality, it is possible to explain existing social processes in more detail, using the theory of archetypes and the model of the "main" archetype present in each culture, as well as to predict the reactions of various civilizations to crisis states.

The main content (Discussion). A certain historically established system of archetypes covers many aspects of the collective subject's life activity. The concept of cultural archetypes, according to A. V. Lubsky, is based primarily on the ideas of K. Jung's "analytical psychology", L. S. Vygotsky's "cultural-historical theory", J. G. Cooley's "symbolic interactionism", as well as ideas about culture as a value-symbolic system and spiritual intention of human activity. In his archetypal psychology, D. Hillman believes that "there are no fixed archetypes, they are the fruit of the imagination of the unconscious" [2, p. 38].

Noting that every society conceals the leading archetypes, M. Mark, C. Pearson especially emphasize that the more invisible the archetype, the more it influences the way people live. A certain historically established system of archetypes encompasses many aspects of the collective subject's life activity [3]. The work of Yu. V. Filippov, I. N. Koltsov notes the presence in society of basic archetypes that constitute "the quintessence of the national-historical myth": the archetype of the earth, the archetype of kinship and the archetype of the religious-ideological [4, p. 161]. According to Yu.M. Plyusnina, one of the most important consequences of the concept of "social archetype" is the refusal to discuss the problem of levels of social organization and the recognition of the impossibility of social evolution in a progressive or regressive type. The concept allows for changes in the social structure, described as historical phenomena [5].

Based on the concept of K. G. Jung found that communication in the social structure passes through the collective unconscious and is expressed through archetypes. Manifested in the imaginative series of cultural heritage through art: mythology, poetry, painting, architecture. Myths, dreams, visions, rituals, neurotic and psychotic symptoms, works of art contain a significant amount of archetypal material and represent the best source of our knowledge about archetypes. It is assumed that the collective unconscious contains many archetypes [4].

The archetype K. Jung defines as an image of the general collective experience of mankind, by means of which it unites all living, living and not yet living people according to some common parameter. The selected parameter can be considered as an order parameter within a culture, which becomes the basis for self-organization and development or, conversely, destructive processes in society. Accordingly, archetypes become a kind of indicator of the cultural relationship between society and the environment [3]. An archetype is a universal mental form (idea) containing a significant emotional element. This mental form creates images or visions in ordinary waking life corresponding to certain aspects of the conscious situation.

In his theory, C. Jung was able to see the system integrity in the experience of all mankind, denoting the concept of "collective experience of mankind" and its structural units

in the form of archetypes - "the most primary" or original types or structural elements of consciousness. Differently, these structural units, he designated as "primary models". Archetypes became the primary fundamental carriers of meaning in culture. Two regions of the unconscious, personal and collective, are of great importance for a person. "It (the unconscious) contains possibilities hidden from the conscious mind, because it has a subconscious content, all that has been forgotten or unnoticed, as well as wisdom and experience of innumerable centuries settled in its archetypal organs" [7].

Based on the analysis carried out, it is possible to single out that the structural components of the collective unconscious are called differently by K. G. Jung: archetypes, dominants, original images, imago, mythological images, behavioral stereotypes. Archetypes are not necessarily isolated from each other in the collective unconscious. Pay attention to the need for it. that as archetypes K. Jung identifies complex states of consciousness that are inherited and reflected in mythological symbols. The main characteristics of the symbol are character, figurativeness, generalization and ambiguity. It has many meanings that can be interpreted in different ways, lost and reappear. According to C. Jung, a symbol is "this is a name or images that can be known in everyday life, but have a specific added value to their usual meaning" [6, p. 16]. The symbol of C. Jung has two main functions: it represents an attempt to satisfy a frustrated instinctive impulse; embodies the archetypical material. One of the roles of the symbol is impulse resistance. If the energy is distracted by the symbol, it cannot impulsively discharge itself. Since the archetype is a symbolic formula, the symbol of danger itself and of its overcoming by Jung is associated with the symbol of renewal, Godbirth, "creeping out" from a limited space. In particular, Jung points to the Greek myth, according to which the hero, coming out of the belly of the whale, takes along with himself his parents, and all those who were previously absorbed by the monster [6, p. 129]. Describing the archetypical symbols, CG Jung described them as "the possibility of some more wider, higher meaning beyond our immediate moment of perception and a hint of such a meaning" [6, p. 278].

In general, based on the conceptual provisions of C. Jung, it is possible to single out the foundations of the social and personal archetypes in the space of phenomenological and semiotic ideas.

Social archetypes associated with the idea of a collective or impersonal unconscious. The concept of a collective or supra-individual unconscious - one of the most original and controversial will accept the theories of the personality of C. Jung. This is the most powerful and influential mental system, and in pathological cases it overlaps the I and the personal unconscious. Racial memories or representations are not inherited as such: rather, we inherit the possibility of re-living the experience of previous generations. They act as predispositions forcing us to react to the world in a certain way. The collective unconscious is the innate, racial basis of the whole personality structure. It grows I, personal unconscious and other individual acquisitions. What a person believes is the result of his experience is essentially determined by the collective unconscious, which has a guiding or selective influence on behavior from the very beginning of a person's life. "The form of the world in which it is born is already innate as a virtual image" [2, p. 188]. This virtual image becomes a specific perception or idea through identification with the objects of the world corresponding to it. The experience of the world is largely shaped by the collective unconscious, but not completely otherwise, neither variations nor development would be possible.

The individual personality of C. Jung is a product and container of generic history. Human beings in their present form are shaped by the cumulative experience of previous generations, going back to the unknown roots of humanity. The bases of the personality are archaic, primitive, natural, unconscious and, possibly, universal, that is, there is a racially preformed collective personality selectively penetrating into the world of experience, modified and developed by the experiences that have arisen. The individual personality is the resultant interaction of internal and external forces.

So, as the archetype itself has a symbolic and ideally-informational nature, K. Jung and his followers believe that the dominant figure is manifested in the individual personality, despite the fact that all the figures are represented in the personality structure as in the personality theater [1]. The ability of the symbol to represent the lines of personal development, especially the search for integrity, plays an extremely important role for C. Jung. Symbols are representations of the psyche. They not only express the wisdom accumulated by mankind - racial and acquired individually, but they can also represent levels of development far ahead of the present state of humanity. Symbols indicate the fate of man,

the highest evolution of his psyche. The knowledge contained in the symbol is not directly known to people; to find the message contained in it, you need to decipher the character.

Conclusions. On the basis of the analyzed material it is possible to make certain generalizations and conclusions.

Archetypes not only reveal and explain the existence of the world and man in it, but also create a certain emotional background. The mood of individuals and society immerses the consciousness of people in the general semantic and informational flow, which determines their involvement with those events and phenomena that are of particular importance for them and are contained in the archetype.

Archetypes, according to K. Jung, have a symbolic nature. The archetypes are the heroes of the epic, and the phenomena of history, the features of the national character. Thus, the archetype acts as a prototype of a collective subject.

In K. Jung's theory, any person acts as a plural, as an aggregate of other personalities, as a theater of archetypal figures, as the main system-forming elements. In a society that consists of individuals united by various social ties, archetypes are distinguished that characterize the basic parameters of order. Awareness and selection of archetypes allows you to analyze the stability of society in various crisis conditions and changes.

Prospects for further research. Socio-philosophical analysis of the bases of archetypes, based on the concept of them in the concept of CG Jung, causes the need to continue research, since social systems are most stable, the values of which are based on archetypes for the longest periods, and when based on them social stereotypes of relationships and relationships in society.

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Social – Cultural Deviation of the Creative Environment: a Conceptual Approach to the Phenomenon

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Abstract

The article discusses the main theoretical and methodological approaches to the study of deviation. It is revealed that the phenomenon of social reality deviation is still not well understood. The need for a conceptual approach to form an idea of deviation in the creative environment is indicated. It is substantiated that it is possible to form ideas about the creative elite as a special social space on the basis of using Narrative as an interdisciplinary methodological construct in modern social sciences.

It has been established that an integral part of any social system, its essential characteristics, its necessary and regular components are norms and deviations. It is substantiated that the functional characteristics of the representatives of the creative environment are the organizing force that makes any society a coherent sociocultural system. The outline of socio-cultural factors of deviation can be distinguished from the following. Each deviation determinants form a kind of "deviantogenic complex" in which the behavior of a particular individual of the creative environment under the influence of certain circumstances depends to a large extent on a complex of individual characteristics: nature, temperament, intellectual, volitional, emotional peculiarities, conditions of socialization, education, educational level, etc.; as well as from his social environment.

In the conclusions it turns out that from the presented conceptual approach it follows that as a phenomenon, deviation can not be explained "from itself," but only from the standpoint of the socio-cultural whole, in the context of the whole structure - a society whose substance forms a set of social relations.

Keywords: deviation, deviant behavior, creativity, creative environment, positive deviations.

Introduction. Deviation as a phenomenon is a special subject of knowledge, which has its own methodological features and specific features, and as a phenomenon of social reality is still not sufficiently studied. Hence the fragmentation of the solution of social problems, including in relation to deviant behavior.

The urgency of the appeal to rethink deviation is due to the fact that although the sociocultural causes of deviations suggest different concepts, and these trends are largely influenced by the theories of anthropological and biological and psychological directions, but, given the natural in man, deviation consideration is required systemically, functionally, in the context of changes in social reality and the forms of human activity associated with it. A new stage of the development of deviation concepts is singled out, which is characterized by systemic and functional approaches to the problem of studying the phenomenon of deviation as a sociocultural phenomenon.

The degree of elaboration of the problem. Despite the fact that the work of many researchers is devoted to the problem of deviance, there is currently no single point of view on the definition of deviant behavior in a creative environment.

Scientific interest in the study of deviation problems is observed from the second half of the nineteenth century. One of the first of these phenomena began to be investigated by C. Lombroso and E. Durkheim. Substantial contribution to his scientific development was further carried out by foreign researchers such as A. Adler, G. Eysenck, O. Akhieser, G. Becker, V. Bekhterev, M. Brusten, M. Gould, E. Hoffman, E. Husserl, R. Darendorff, P. Jacoby, F. Zack, R. Clouard, L. Kozer, A. Cohen, N. Christie, R. Quinn, E. Lemert, C. Lorenz, D. Mats, T. Matisen, R. Merton, J. Mead, R. Maurice, F. Nye, L. Oulin, R. Park, T. Parsons, W. Pearce, A. Reiss, V. Reich, H. Sykes, E. Sutterland, T. Selin, I. Sikorsky, D. Silverman, N. Smelzer, G. Tard, J. Taylor, D. Walsh, S. Freud, V. Chembliss, G. Sheldon, P. Filmer, M. Philipson, K. Shaw, A. Shuite . Jung et al.

As part of the socio-philosophical direction are considered different paradigmatic ways of developing a deviation problem. At the same time, as I.A.Kirichenko notes, socio-philosophical concepts, despite the wide range of their positions in the interpretation of deviation, converge in determining the existential (sociocultural) grounds of this phenomenon. The general feature of the concepts of this direction is also the definition of the logical nature of deviation as a phenomenon of being of society [1].

In general, it follows that some researchers attribute any actions that are not approved by public opinion, others - only violations of legal norms (the so-called delinquent behavior), and third - all types of creativity. All this determines the relevance of the social - philosophical methodological analysis of deviant behavior in the creative environment.

Insufficiently lit parts of the problem. Despite a sufficient amount of research on deviation, the main approaches to deviation in the creative environment are still not enough, and many ideas remain debatable, and the transfer of interest to the qualities of a creative person is productive.

The purpose of the study is to examine the presentation of the deviation and the disclosure of the main methodological approaches to research. To substantiate the need for a

conceptual approach to form an idea of the social and cultural deviation in the creative environment.

The main content (research methodology). Our conceptual approach to the study of socio-cultural deviation was based on the identification of the following methods: hypothetical-deductive, heuristic method, ascent from the abstract to the concrete, a systematic approach, and specific methods of socio-humanitarian cognition: comparative and historical methods, a functional method acting as necessary for the structural differentiation of the object under study, distinguishing the generatrix levels and their status differences, interpretation.

As an empirical material, it seems fruitful and expedient, in accordance with the methodological approach of S. I. Shelonaev, we consider an appeal to the statements of representatives of the creative elite. The words of representatives of the creative elite express the results of their moral reflection, rooted in the world of personal experience and individual meanings [2]. Despite the seemingly sufficient degree of elaboration of narrative issues, the methodological foundations include the idea of the interpretation of consciousness as a set of texts, recognition of the possibility of multiple interpretations of each text and the vision of society and culture as a unity of blurred, decentralized structures in postmodern. Ideas about the creative elite as a special social space can be made on the basis of using the Narrativ as an interdisciplinary methodological construct in modern social sciences [3, p. 41 - 48].

The main content (Discussion). In our study, we draw attention to the following theoretical and methodological foundations, in fact, already traditional and generally accepted, and indicate that it is necessary to synthesize them and build a concept based on the idea of deviation in the creative environment. In our opinion, this is the broadest definition of deviation. It emphasizes the essence of this concept, focusing on its social origin.

In various studies of the traditional level of deviation are considered as deviant behavior, always evaluated in terms of attitudes to ethical norms and rules adopted in a given society. To attract attention to Yu.Yu. Comleva, M.H. Safiulin that "there is no such society in which all its members would behave in accordance with the general normative requirements. Social life and especially a man tend to deviate from the axis of his

existence and development. The reason for this deviation is the peculiarities of the relationship and interaction of man with the outside world, the social environment and themselves. Some scholars believe that diversity in the psychophysical, socio-cultural, spiritual and moral conditions of people and their behavior, arising on the basis of such interaction, is a condition for the flowering of society, its improvement and the implementation of social development. But, on the other hand, this diversity can lead to the spread of deviations - deviations. In this case, from the standpoint of the generally accepted approach, deviation is an act of deviation that goes beyond one or several socio-cultural norms "[4, p. 24].

On the basis of the analysis, it may be possible to draw attention to the fact that the main aim of the psychological approach was to justify the thesis that deviations are psychically programmed phenomena and manifest themselves through the structure of the unconscious (Z. Freud) [5], through instinctive behavioral programs (K. Lorenz) [6]. Socio-philosophical concepts, despite the wide range of their positions in the interpretation of the deviation, converge in the definition of the existential grounds of this phenomenon, under which various aspects of social reality are understood. A common feature of the concepts in this direction is also the determination of the regular nature of deviation as a phenomenon of society's existence. The interpretation of the law of deviation in the concept of the anomy of E. Durkheim is revealed through the system-functional approach, which allows us to analyze the deviation as a definite functioning phenomenon [7]. The concept of R.Merton was of crucial importance for the analysis and identification of the structure of the deviation. The idea of the law of deviation is deepened in the theory of tension by R.Merton, who becomes the founder of the deviantological theory within the framework of the structural-functional paradigm [8]. At the same time, in the context of socio-philosophical concepts, the problem of ambiguity of the criteria of deviation and the grounds for its typology is raised (N. Smeszer) [9].

In modern domestic concepts deviation is considered not as a pathology, but as a natural and necessary result of the evolution of society. In this context, the position of AI Kovaleva and several others is highlighted, which states that social deviation is a broader concept than deviant behavior, which is only a "special case" of social deviations [10].

In our view, this understanding of deviant behavior allows one to clearly define the boundaries of this phenomenon and explain the scientific and practical significance of its study. Socially approved deviations, which include all forms of "super-intensive social creativity" in the sphere of scientific, psychic, artistic activity, lead to positive transformations and, consequently, do not carry the threat of destabilization of society. Deviant behavior, as noted, in particular by V. I. Mareev, V. A. Shapinsky and others, represents a threat to the stability of society and requires constant control, study, and the search for ways of correction. At the same time, it is necessary to take into account the relativity of these concepts. In nature, there are absolutely "normal" or truly "deviant" personalities, deeds, phenomena. They become such only from the standpoint of specific norms that are specific to a particular society at a particular time period. Thus, as a result of the reappraisal of values that occurs in society, especially in the critical periods of its development, certain acts, aspirations, begin to be evaluated in a different way. What previously seemed to be abnormal, contrary to the commonplace, becomes a norm and is perceived, if not absolutely different, then more permissible [11].

From the research of N. I. Stepanova it turns out that norms and deviations are an integral part of any social system, the existential basis, essential characteristics, necessary and regular components of it. One of the basic elements of being society becomes socialization as a process of assimilation of norms. From the position ontology, it can be considered as a mobile social reality, involving all new individuals, which has many manifestations [12]. In the work of M. P. Berezhnoy, on the basis of the study of various forms and methods of alienation, conclusions were drawn about the presence of the so-called "phenomenon of cultural departure" from the alienated being. Immediately creative and deviant behavior of man as a variant of the form of an exit from social-moral exclusion,

Thus, summarizing the above, it can be argued that in most research deviations - it is not a pathology, and natural and, in a sense, the result of the evolution of society is necessary, therefore, deviant behavior is one of the necessary conditions for the development of mankind and society.

its positive and negative aspects are analyzed in the existence of man [13].

In our opinion, in agreement with IA A. Kirichenko, the deviant behavior can be represented as a multi-level phenomenon: the first level - a deviation in the behavior of a particular individual; The second level is the rejection of a particular social group when it becomes typical for most of its members; the third - deviations in society, due to the crisis of

society, the discrepancy between socio-cultural values of society and socially approved means of their achievement [1].

The set of socio-cultural factors of deviation can be distinguished from the following. Each deviation determinants form a kind of "deviantogenic complex" in which the behavior of a particular individual of the creative environment under the influence of certain circumstances depends to a large extent on a complex of individual characteristics: nature, temperament, intellectual, volitional, emotional peculiarities, conditions of socialization, education, educational level, etc.; as well as from his social environment. Proceeding from the above, we distinguish a set of socio-cultural factors that influence the state, level, structure, dynamics of deviant manifestations.

Conclusions. On the basis of the analyzed material it is possible to make certain generalizations and conclusions.

In our opinion, the existence of various methodologies for the study of deviation in the creative environment requires a socio-philosophical view of the architectonics of spiritual production, which also makes it necessary to integrate the theoretical and methodological principles into the conceptual whole of the study, with the inclusion of narrative methodology.

Concepts and theories within the framework of the socio-philosophical approach, without degrading the biological and psychological determinants of deviation, attach great importance to its social causes. At the same time, socio-philosophical concepts and theories, despite the wide range of their positions in the interpretation of deviation, converge in determining the existential grounds of this phenomenon, which refers to different aspects of social reality. The general feature of the concepts of this direction is also the definition of the natural nature of deviation as a phenomenon of society.

Most studies correlate deviation with the social structure of society, but recently there are works devoted to the value of gender, ethnic, physiological factors.

From our conceptual approach it follows that as a phenomenon, deviation can not be explained "from itself", but only from the standpoint of the socio-cultural whole, in the context of the whole structure - a society whose substance forms a set of social relations.

Prospects for further research. It is necessary to continue the study of deviation, especially taking into account the changed realities in order to identify precisely its positive manifestations as creative activity and with the ability to make negative ones minimal.

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Traditional and Modern Methods of Painting on the Plener of Students of Art Education

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Abstract

The article discusses the concept of plein-air painting as one of the most effective forms of the formation of diversified, creative future artists-educators, where in addition to solving common tasks, there is the possibility of including them in creative activities based on the ability to analyze and synthesize, on a comparison of proportional, constructive, tonal and color relationships in nature. Attention is drawn to the fact that the Odesa School of Fine Arts is characterized by poetic understanding and perception of nature, which influenced the rethinking of the role of etude in teaching and the development of the plein-air teaching method, and the open-air practice of students has become an integral part of the educational process. Theoretical and methodical methods of teaching painting in the open air are revealed and it is emphasized that the problem of developing and educating the creative individuality of artists-teachers in the process of teaching painting and in the open air in the complex of combining traditional and modern methods was not developed enough. It is indicated that in order to combine traditional and modern methods of teaching painting in the open air, it is correct to use the model for evaluating the artistic and creative development of the student's individuality in the learning process, which is a unity of three complementary aspects. It is determined that at the basis of the solution of the tasks set and the positive effect of the proposed methodology there is a combination of all the exercises offered at the practical classes into a complex scientifically based methodological system. It is presented that the conducted pedagogical experiment showed that successful and durable mastering of professional knowledge and the development of practical skills in painting occurs under certain conditions. The conclusion is that the main form of interaction of traditional and modern methods of teaching basic special disciplines is a full-scale production or open-air. The combination of traditional and modern methods of teaching plein-air painting suggests a complex method of correlating learning tasks for painting in the open air with other special disciplines, which makes it possible to trace and define their interaction in order to teach painting in the open air and develop students' creativity. The necessity of a complex mix of traditional and modern methods of teaching painting in the open air, contributing to the formation of the future artist - teacher, is substantiated.

Keywords: plein air, creative activity, traditional method, modern method, complex methodical system.

Introduction. One of the problems of art education in modern times is the need to find teaching methods that will contribute to the more effective formation of diversified educated, creative-minded future artists-educators. One of the most effective forms is the pictorial practice "Plein", where in addition to solving common problems, there is the possibility of including them in creative activities based on the ability to analyze and synthesize, comparing proportional, constructive, tonal and color relations in nature. In the process of the plein air, the components of the artistic culture of the individual, such as competence, cognitiveness, and creativity, are also formed.

The degree of elaboration of the problem. The degree of knowledge of the problem. Many problems and tasks of the plein air are reflected in the aesthetic-philosophical, psychological and art history works, in the theoretical and methodological provisions of the open-air painting by artists A.M. Vasnetsov, K.A. Korovin, N.P.Krymov, A.I. Levitan, A.A.Rylova, A.K. Savrasova, P.P.Chistyakova, K.F. Yuona and others.

Traditional methods of painting in the open air are revealed in the works of MD Bazanova, G.V. Bedy, V.V. Weather, V.A. Ledneva, N.Ya. Maslova, S.P.Lomov, A.A.Yankovskiy and others. Significantly methodological foundations complement the following work: theory of activity and developmental education V.V. Davydova and D.B. Elkonin; concept of problem-based learning I.Ya. Lerner; pedagogical theories of creative personality development BM. Nemensky, B.P. Yusova, V.S. Shcherbakov; conceptual provisions of the professional activity of the art teacher V.S. Kuzina, N.N. Rostovtseva, E.V. Shorokhov; theoretical heritage of artists - teachers P.P. Chistyakova, I.E. Grabar, A.A. Deineko, B.V. Johanson, D.N. Kardovsky, V.A. Tabor; scientific provisions on the specifics of the psychology of artistic abilities R. Arnheim, L.S. Vygodskiy, V.I. Kiriyenko, I.P. Paylova and others.

In general, it follows that the principles of teaching landscape painting, applied by masters, as well as theoretical developments in the field of color science, psychology and pedagogy of art are becoming an important component in the use of traditional and improving methods of teaching students in the open air in modern conditions. However, the problem of the development and upbringing of creative individuality of artists-teachers in the process of

teaching painting in the open air in the complex of combining traditional and modern methods was not developed enough.

Insufficiently lit parts of the problem. Considering that this problem of combining traditional and modern methods of teaching open-air painting has not been comprehensively disclosed, it has become necessary to address this topic.

The purpose of the study to consider ideas about plein-air painting and to reveal theoretical and methodological methods of teaching painting in the open air. To justify the need for a complex mix of traditional and modern methods of teaching painting in the open air, contributing to the formation of a future artist - teacher.

The main content (research methodology). The theoretical and methodological basis of the study consists of the following methods: holistically-differentiated, which allows to combine individual and collective approaches in teaching students of open-air painting; personality-oriented, which allowed us to develop the creative individuality of each of the students who are in the team - the educational group; pedagogical experiment in which the task was to study the creative potential of students in specific working conditions in the open air.

In solving experimental and pedagogical tasks in the performance of educational tasks of painting in the open air, we consider it necessary to pay attention to the study of educational tasks in painting in order to improve the process of teaching students in the open air; on the compositional and artistic analysis of sketches performed at separate stages of work in the open air; analysis of the dynamics of the creative development of students in teaching painting in the open air.

In order to combine traditional and modern methods of teaching painting in the open air, we consider it correct to use the model for assessing the artistic and creative development of the individuality of a student in the learning process, which is a unity of three complementary aspects: natural talent; learning of painting; creative activity; the method of adapting the personality-oriented approach, which is an individual training of students in the study group; method of coordination of educational tasks for painting in the open air with other educational tasks of special disciplines in their complex.

The main text (Discussion). As a result of the analysis of pedagogical, psychological, art history, historical literature, the traditional directions of artistic and pedagogical experience were revealed: the basis of the tradition of the visual method used at the initial stage of artistic vocational education is observation and work with nature; the natural method was and remains the main one in the practice of studying basic special disciplines.

The basis of our view is that the integrated method of correlating learning tasks in painting in the open air with other special disciplines allows us to trace and determine the effectiveness of their interaction in order to learn painting in the open air and develop students' creativity. The principles of teaching landscape painting, applied by masters of the past, as well as theoretical and methodological developments in the field of color science, psychology and pedagogy of art, are becoming an important component in improving the methods of teaching students in the open air in modern conditions. In this case, based on our experience, it is assumed that the formation of a coloristic vision in the classroom of landscape painting under the conditions of the open air will be more effective if the methodical system of purposeful formation of a coloristic vision as an artistic reflection is applied.

The very specificity of artistic reflection suggests, according to R. Arnheim, the dynamics of continuous transitions from the visual to the speculative, from the immediate to the implied, from the external representation to the internal sense [1]. Referring to the special "plein-air vision", it is possible to distinguish from R. Arnheim that in all cases thinking operates not with direct images of objects, but with visual abstractions [2, p. 273].

So, for the Odesa School of Fine Arts, poetic understanding and perception of nature is characteristic, which influenced the rethinking of the role of etude in teaching and the development of the plein-air teaching method; open-air student practice has become an integral part of the learning process. In the context of world and European art in particular, the uniqueness of the Odesa school of painting is that here the traditions of working from life in the open air are preserved [3].

In the context of our study, we proceed from the following provisions: provisions on the methods and methods of teaching landscape painting from the standpoint of their use in modern conditions; about the necessity and effectiveness of including in the educational process information about historical monuments in order to develop students' artistic

creativity; about the introduction of knowledge about the compositional and artistic patterns of achieving harmony in the method of teaching painting in the open air; about the peculiarities of the personality-oriented methodology, the main provisions of which contribute to solving the problems of improving the quality of student learning in the conditions of openair practice; about the pedagogical experiment to assess the effectiveness of the use of individual and collective approaches in training in the open air; about the dynamics of the formation of practical skills and abilities of students both during the course of open-air painting and at its individual stages.

From the main theoretical and methodological approaches we draw attention to the following. For short-term assignments A. A. Vasiliev as preparatory the exercise offers a still life imitating landscape relationships (sky, earth, water). He explains the necessity of this task by the fact that the coverage of all subjects in nature is difficult, and the student cannot yet single out the main thing. He also proposes to start writing sketches of a landscape from a shallow space, for example, part of the courtyard [4].

- V. M. Sokolinsky has attention to the problematic issues that are associated with the composition of the landscape in the works of students, and he offers the following types of classes: additional classes in painting in educational workshops; classes with access to studies under the guidance of a teacher; independent work of students after school hours; making copies from etudes of landscape masters, work from memory, illustrating a literary work; performance of pedagogical drawings depicting the landscape; work with various materials; collective discussion of instructional landscapes [5].
- S. E. Tokarev proposes to use interrelated and complementary methods; the study and analysis of practical work, observation, conversation, pedagogical experiment, the development of the ability to see, identify, portray. He recognizes the crucial role of the teacher at all stages of the performance of the etude, his personal example and offers a system for the development of aconstant vision; exercises for the development of creative abilities; exercises on the transfer of color-tone content; tasks to solve the space in a multi-dimensional landscape; exercises in enlarged format [6].

In the study of E.A. Khizhnyak, attention is paid to the concepts of color, color harmony and it is proposed to give a certain theoretical knowledge base to students, to master the techniques and methods of depicting the color of the form, space [7]. According to E. V.

Voronina, the problem of developing a coloristic vision is many-sided. It is connected with the act of cognition, the creative study of reality and the practical development of the means of expression, among which the first place is given to color and color. Improving the art of painting in a natural, landscape-architectural environment contributes to the formation of students' need for independent creative work. It is possible to pay attention to E. V. Voronina's theoretic - methodological provisions. Thus, she emphasizes that students and teachers knowledge of the methods of forming a coloristic vision will allow mastering the picturesque mastery, but along with this practical solution of this problem is impossible without students and teachers knowing the features of color, methods and ways to create coloristically correct solutions, but the formation of a coloristic vision among students on practical studies of landscape painting in the open air conditions is impossible by means of modern techniques [8]. Considering this problem, it should be noted, - writes E.V. Voronina, that the development of a coloristic vision of future artists - teachers consists in taking into account the interaction of two aspects: educational and creative. The educational aspect consists in the consistent and purposeful study of the color patterns of the surrounding reality, the visual perception of color, as well as the study of techniques and methods for transferring them in painting. The creative aspect assumes a creative focus of learning, namely: the conscious use of color patterns, the selection of colors in order to subordinate them to the plan and to achieve the greatest expressiveness of the pictorial image [8].

On the basis of an analysis of the peculiarities of teaching painting in the open air, L. A. Zhadanova reveals the pedagogical concepts of curriculums for holding open-air practice in painting in various art institutions, outlines theoretical and methodological recommendations for constructing a system of educational tasks for the plein-air. The personality-oriented method of combining individual and collective approaches to learning has been experimentally verified, taking into account the psychological structure of each student. The longitudinal study allowed us to trace the dynamics of the development of practical skills and abilities of the creative activity of students in the educational process. According to the provisions of L. A. Zhadanova, the skills and knowledge acquired in the process of carrying out educational tasks in the open air form professional skills and improve the quality of teaching painting in the workshop. This interdependence of painting particularly acutely poses the problem of studying teaching methods and developing creative

individuality, especially in the open air, when nature is the "main teacher" [9, 10]. It is possible to single out from L. A. Zhadanova that the methods of teaching plein-air painting, obtained in the pedagogical experience of masters of art, should be coordinated with the peculiarities of modern higher education, that there is a role for regional peculiarities and the cultural and historical status of the area that have a direct impact on the development creative individuality of students; the methods of landscape painting studied in color studies, used in impressionism, must be adapted to the conditions of geography and traditions of the Russian open-air school; teaching painting in the open air is a multifaceted and complex phenomenon that deserves close attention from the specialists of the pedagogy and psychology of art, artists, teachers [9, 10].

The interaction of traditional and modern methods is reflected in the work of N. V. Seliverstova, who said that the programs that emerge as a result of many years of collective reflection and evaluation of the achievements, in practical pedagogy, play the role of a canvas by which each teacher-artist builds his own training system. Based on the analysis of the theory and practice of teaching basic special disciplines, N. V. Seliverstova reveals the objective conditions for the interaction of traditional and modern teaching methods, which presupposes the presence of teachers who continue the traditions of the academic art school; introduction into practice of non-traditional forms of organization of the educational process; students' readiness to simultaneously solve educational, creative, search problems in practical works of an academic orientation. From the conclusions of N. V. Seliverstova, it is possible to single out the position that the effectiveness of introducing into practice the practice of academic art education of the principle of interaction of traditional and modern methods of teaching basic special disciplines is based on introducing into the educational process such components of a theoretical model as: traditional methods of art education; regional cultural pictorial traditions; modern teaching methods; pedagogical creativity of the teacher. The most optimal and productive form of implementing the principle of the interaction of traditional and modern teaching methods is a field production, which allows the teacher to put into practice the simultaneous solution of educational, search and creative tasks. The structure and the main content of the thesis [11].

Our position, based on the analysis of research and practical experience, is as follows. Plein-air practice is aimed at "refreshing the palette", consolidating the knowledge and skills acquired in the workshops of drawing and painting, architectural design. The plein-air has its own characteristics that you need to know in order to achieve good results in work, namely: you need to work quickly, as wildlife is constantly changing. With a long drawing - to work at the same specific time of day and state of nature; proceeding to the landscape, you should write a series of studies on the state. Short in time, small in size, at different times of the day and in any weather. The main task is to convey the rapidly changing illumination, color, general tone of the motive, to understand the dependence of the local color of objects on the lighting; To achieve the desired results, it is necessary to develop such qualities as observation, wholeness of vision, creative imagination, and visual memory. This is facilitated by a system of auxiliary exercises, short-term drawings, sketches and sketches along with long drawings. The system of auxiliary exercises should include certain stages: an outline; sketch as a more complete than a sketch, the image of the objective world. Based on the solution of the tasks set and the positive effect of the proposed methodology, we substantiate that combining all the exercises offered at the practical classes into a comprehensive scientifically-based methodological system ensures effective interaction of the didactic, methodical-pedagogical and cognitive aspects of the process of teaching landscape painting in the conditions of the open air. We confirm that drawing from nature in the open air has an educational and educational value.

One of the main tasks of the experiment was to develop a system of theoretical and practical tasks on mastering color, as the most expressive and emotional means of painting, actively participating in the construction of an artistic image, as well as its practical confirmation. This system combines theoretical introductory conversations, preliminary explanations using visual aids, exercises and exercises, short-term sketch studies, short-term and long-term work. The conducted pedagogical experiment showed that successful and durable mastering of professional knowledge and development of practical skills on painting takes place under certain conditions. Comparison of the results of the work of experimental groups with control ones clearly demonstrates the advantage of the proposed system of exercises, confirms its pedagogical effectiveness. In the process of analyzing the results of experimental research, it was found that students of experimental groups successfully coped with the development of the mandatory minimum of landscape subjects provided for by the open-air practice program. In control groups, the compulsory program was mastered to a

lesser extent. The transfer of color-tonal relations of the nature motive, a certain coloristic state and depth of landscape space, is a favorable prerequisite for the revitalization of the professional and creative activities of future artists-educators. Effective assistance in achieving the goals of training has had a targeted impact on the emotional sphere of the students' personality in the process of working on the landscape in the conditions of the open air, the use of various artistic materials and performance techniques. An important role during the testing of the experimental methodology was the setting before the students of certain tasks, pedagogical installations and methods that contribute to the intensification of thinking and performing activities. A comparative analysis of the results of the implementation of the experimental complex of educational and creative tasks gave the following results (Control group. High - 18%. Medium - 52%. Low - 30%), (Experimental group. High - 29%. Medium - 59%. Low - 12 %).

Conclusions. On the basis of the analyzed material it is possible to make certain generalizations and conclusions:

- The main form of interaction of traditional and modern methods of teaching basic special disciplines is a full-scale production or plein air.
- The combination of traditional and modern methods of teaching plein-air painting involves the use of traditional technological techniques of the past in practical art activities; the ability to create a coloristic unity of the picture plane and volume-spatial compositions in the work from life and by presentation; isolating the plastic constructive basis of the field performance and its reflection in the work; interest in the search and use of the new artistic capabilities of traditional academic performance techniques; creative understanding and processing of artistic and visual heritage; understanding of features in solving educational and creative problems in the work on composition.

Prospects for further research. There is a need to continue the search for the principles of the synthesis of traditional and modern methods of teaching plein-air painting, which are especially characteristic of the space of regional painting schools and visual traditions.

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The Forming English Lexical Competence in Dialogic Speaking for Prospective Experts of Hospitality and Restaurant Service

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Abstract

Hospitality and restaurant service are two of the fastest growing industries in the world. Knowing how to speak English is the most important skill to have for hospitality and restaurant service jobs. In the getting job process we faced the problem that the students to not have enough skill in dialogic speaking. In the article the author describes the forming English lexical competence in dialogic speaking for prospective experts of hospitality and restaurant service. To use a dialogic speaking is difficult as a dialogue needs alternate use of students' abilities the speaker and then to express their own thoughts and ideas. Lexical competence surely includes the size of vocabulary and the thematic range. English lexical competence is designed to help students train the following: hotel management, reception, concierges, housekeeping, restaurant staff, tour guides, and most other hotel staff positions. There is a global need for prospective experts of hospitality and restaurant service who can speak English and interact with international guests. Analyzed the topics of the course, job-related areas and situations necessary in forming lexical competence.

Keywords: lexical competence, dialogic speaking, hospitality and restaurant service, vocabulary, communication.

The hospitality is one of the fastest growing employment sectors in the nation and the fourth largest job market over the world. There are endless career opportunities for students who are passionate about creating memories and experiences for people to enjoy. Students of the Hotel and Restaurant Management program are introduced to this exciting industry and will be prepared to enjoy a successful career in hospitality industry. To develop competent and ethical hospitality management professionals who understand the challenging demands of the global industry, value life-long learning and will commit to the high standards of the hospitality industry.

Communication is the key feature for professional qualification of prospective experts of hospitality and restaurant service. Hospitality is also an international industry and will involve a range of inter-cultural encounters. The language of this industry is quite clearly English in an international context, but it is also the language of meeting needs, of providing high levels of service, of understanding people, of delighting people, of solving problems.

An analysis of recent studies and publications shows that the forming English lexical competence is a constant subject of research. This problem was dealt with both domestic and foreign scholars, namely: O. Bihych, I. Bim, V. Buhbinder, I. Zadorozhna, O. Kvasova, L.

Morska, N. Mykytenko, N.Minina, G. Neuner, S. Nikolaieva, Ye. Passov, J. Richards, W. Rivers, E. Rogers, I. Simkova, D. Tereschuk and others.

The purpose of study is to analyze forming English lexical competence in dialogic speaking for prospective experts of hospitality and restaurant service.

From a teaching point of view the emphasis is firmly on functional language – giving information, making recommendations, dealing with problems and so on – and on creating realistic situational practice where language functions can be demonstrated and developed alongside basic service-oriented performance.

Lexical competence has been suggested to be a cluster of knowledge (form, meaning and use of a lexical item), skills and abilities that a person develops and deploys in different contexts of communication [4, p. 1]. When we say a person knows a language we first of all mean he/she understands the language unspoken and can speak it himself/herself. In learning a foreign language it is necessary to think about what motivates students to speak.

The problems of meaningful speaking are in:

- asking for information;
- breaking in;
- presenting the information in order to define the main problem;
- expressing negative attitude politely;
- saying tactfully;
- changing the subject;
- guessing;
- expressing arguments, etc.

The amount of vocabulary is a simple and clear index of telling the level of proficiency in a second language. Learners are also always concerned with the size of English vocabulary or lexicon knowledge. In learning vocabulary, many researchers advocate «incidental learning» in which learners are simply exposed to authentic language [1]. Lexical competence, only when it is defined clearly, can become a component of communicative competence or language resources. Lexical competence surely includes the size of vocabulary and the thematic range.

The stages of lexical competence are [3, p. 223]:

1) stage of familiarization,

2) stage of automation.

English lexical competence is designed to help train the following: hotel management, reception, concierges, housekeeping, restaurant staff, tour guides, and most other hotel staff positions. Whether the job is to take reservations or clean the hotel rooms, these exercises can help students learn important words and expressions to use on the job in the hospitality industry because they are focused on practical tasks and activities.

As a result, the forming English lexical competence in the students' studying in hospitality industry reveals:

- 1) the necessity of putting the dialogue in the center of interaction;
- 2) the opportunity to emphasize the resources of dialogue as an insurer of changing the information into personal knowledge;
- 3) (and) certain parameters of the training model structure based on dialogue.

Some researches recommended «instead of emphasizing increasing only vocabulary competence, teachers should step back, look at the broader view, and not focus on immediately feeding the students more vocabulary, but rather the teachers should look at finding ways to help students improve using the vocabulary they already have» [2, p. 1172].

Although it is important for students to use correct grammar and structures, words are the main carriers of meaning. This means that the more words students are able to handle accurately, the better their chances of understanding English and making themselves understood. To know a language means to master its structure and words. That is why the acquisition of vocabulary is just as important as the acquisition of grammar. So, they are interdependent.

Principles of vocabulary selection are:

- frequency;
- usefulness (its coverage, ability to be combined, word-building ability);
- "learnability" (how easy the item is to learn and teach);
- being included in the topics of the syllabus sets.

Here are **five engaging ways** to teach students vocabulary while making sure they boost their vocabulary acquisition:

1. Create a Word Map

Word maps are graphic organizers that help students learn new words by associating it with its antonyms, synonyms, writing their own definition or using the word in their own sentence. Word map activities allows students to think about vocabulary in several ways, and further make connections with each word in relation to other words they already know.

2. Music for Memorization

Music has always been a great tool to help with memorization. Catchy beats and hooks often make vocabulary retention and recall stickier for students. It allows students to memorize at their own pace.

3. Root Analysis

Instead of teaching the definition of a word, we teach root words. Teach students the meanings of specific root words and have them guess what the definition is. Students can take these root words and use them to decipher words they to not know in the future.

4. Personalized Lists

Why not empower students to build their own vocabulary lists? Students will come across new words they to not know every day in readings and discussions across the content areas. When students pick out their own vocabulary words, not only will they be more motivated to learn them, but it allows the vocabulary lists to be personalized to each student, too.

5. Use Context Clues

With this instructional approach, the teacher provides reading passages or sentences with new vocabulary words embedded in them. Students then attempt to guess the definitions. Teaching vocabulary through context clues encourages critical thinking skills and helps them make connections to the word, ultimately helping them remember its meaning.

One thing should be considered is that the learners can get ability to speak a language as a means of communication only if the material taught is connected to their thought and if in conveying their thought, the learners also can use structure and vocabulary directly, without translating from their mother tongue.

The use of foreign language in speaking should be productive activity, not reproductive like the learners always do in using idiom, phrases and sentence. In productive activity, the learners can select themselves the words and structure of language that is need to convey their thought. As a result, the forming English lexical competence in the students' studying in

hospitality industry reveals the necessity of putting the dialogue in the center of interaction, the opportunity to emphasize the resources of dialogue as an insurer of changing the information into personal knowledge and certain parameters of the training model structure based on dialogue.

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Implementation of the Dalton Plan Ideas into Ukrainian Alternative Schooling

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Abstract

The article deals with the first Ukrainian experience concerning the implementation of the components of the American pedagogical model of the Dalton Plan. The originator of The Dalton Plan and the founder of the prestigious Dalton School in New York was internationally known and honored for the contribution into the education. In Ukraine, the Dalton Plan had not been applied until 2017. It was pioneered by the alternative "DEC life school" in the city of Kiev. The DEC life school is based on the Dalton Plan, the Amonashvili School of Life and the Finnish curriculum. The characteristic feature of the Dalton plan can traced in tutoring - accompaniment in teaching, which is provided by a teacher and addressed to each student individually. The dynamics of the implementation of the ideas of the Dalton Plan in the Ukrainian pedagogical space can be confidently characterized as a positive one.

Key words: individual education, Dalton Plan, Ukrainian educational system

The Dalton plan is the example of the implementation of reformation ideas in experimental pedagogy. The exposition of the principles and practices of education on the Dalton Plan was firstly held in New York on the basis of the whole school in 1919.

Helen Parkhurst, the originator of The Dalton Plan and the founder of the prestigious Dalton School in New York became internationally known and was honored for the contribution into the education in the countries such as the United Kingdom, the Netherlands, China and Japan (Parkhurst, 1949), (Parkhurst, 1957).

The invented 100 years ago efficient teaching system is to reorganize the physical and social structure of a school. The original model of the Dalton plan is based on three critical components. They are The Assignment, The Laboratory and The House. The Dalton-plan mainstay is individual work by the plan got from the teacher, which includes assigned tasks and references on the sources to fulfill them both in the laboratory and at home (Glendon, 1955:20).

At the beginning of the 20th century the ideas of the Dalton Plan were eventually spread throughout Europe. Dalton pioneered in the Soviet Union as well. The Dalton Laboratory Plan (later transformed into "the brigade-laboratory method") was implemented in the wide

range of schools such as secondary schools, party schools, high party schools, military schools, evening schools for workers, political courses, "work faculties" ("RabFaks") and faculties of the pedagogical educational establishments (Simonov, 1926:195).

However, the "brigade-laboratory method" was negatively estimated and criticized. The reasons are based upon the non-correspondence of individualism as the basic Dalton Plan principle with the collectivism, as one of the main concepts in the soviet education. And it was forgotten by the Ukrainian and Russian educators for more than 80 years.

Nowadays, in the context of the Ukrainian reforms in the field of education, many educators, philosophers and psychologists fall back on the pedagogical experience dated back to the beginning of the last century. Persecution of the strategic goals related to the educational reform requires the Ukrainian educators to be aware of the background for the formation of the qualitative teaching and learning methods in order to implement them into Ukrainian schooling.

In Ukraine at the present stage of education development an alternative "school" has been arisen as the format of an educational institution. In fact, such institutions offering alternative programs or forms of study have not obtained yet the status of a school. According to the Ministry of Education and Science of Ukraine (https://mon.gov.ua) at this reforming stage of the Ukrainian education such alternative educational institutions do not have state registration, because the registration mechanism is nearly non-existent.

Although there are reforms in Ukraine, but they are being adopted on the sidelines of the **base form** of study without offering the variety of forms to organize the educational process it. The main form of study still remains class-and-lesson system. So, alternative schools, regardless of their format, conclude agreements with general educational institutions. The latter are allowed to conduct distance learning and also to provide their graduates with state-issued documents about the relevant educational or education and qualification

In Ukraine, the Dalton Plan had not been applied until 2017. It was pioneered by the alternative "DEC life school" (Development, Education & Culture) in the city of Kiev.

According to N. Tarchenko, the originator of DEC life school, the idea of opening an alternative school led to an understanding that the training in public schools "became obsolete and sometimes absurd" (Tarchenko, 2017, p.61). The founder of DEC life school

sees three major drawbacks of a modern Ukrainian school. First, a subjective assessment system based only on the teacher's mind, injures and affects the child's self-esteem, and becomes a definite label. Secondly, there is the mismatch of the curriculum with the realities of the present. Students get knowledge that does not come in handy in adulthood. Thirdly, in Ukrainian state schools there is the mechanical assimilation of the material, the lack of the process of forming students' own attitude and the ability to debate or to formulate or express their own thoughts.

The alternative DEC life school practises an individual form of education on the base of Private educational institution "Optima Education Center" for providing educational services in the field of general secondary education (providing basic general secondary education, providing full secondary education) in Kyiv. The Center carries out the educational process on the distance learning form.

The Dec life school initiated the first recruitment of full time students aged 6-12 in September 2017.

The DEC life school is based on the Dalton Plan, the Amonashvili School of Life and the Finnish curriculum. The latter has been chosen as the basis for the school, since it is based on the development of important competences, which compose the ability and motivation to study, creativity and critical thinking.

The Dalton Plan is traced in the planning of individual learning curriculum, in the training to cooperate with both teachers and other students. According to H. Parkhurst the Dalton school was to become a social laboratory. The educators of the DEC life school believe that it was created a model of a real society, where students learn to interact and communicate on an equal basis regardless of age. The characteristic feature of the Dalton plan can be also seen in tutoring - accompaniment in teaching, which is provided by a teacher and addressed to each student individually.

Another significant point is that the practical experience of introducing the Dalton-Plan methodology is shared by Polish colleagues. They also organize the training of Ukrainian teachers. In summing up it can be said that the analysis of the Ukrainian alternative DEC life school shows that the Dalton Plan was adapted to the national educational system of Ukraine. By tracing the dynamics of the implementation of the ideas of the Dalton Plan in the Ukrainian pedagogical space, we can confidently characterize it as a positive one.

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Competence Approach to Student Youth Education

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Abstract

The article highlights the urgency of the educational paradigm problem concerning the practical formation of the competences of contemporary student youth in the educational space of the university, the content of the concepts of "competence", "competence approach" as the necessary condition for the education of a highly culturally competent personality is outlined. The newest philosophy of education in the context of the Concept of the New Ukrainian School directs the educational process towards the formation of the individual, the affirmation of universal values, the development of potential opportunities and talents of student youth, and ensuring optimal conditions for their self-realization. This allows us to express the assumption that under current conditions a pressing issue of the educational paradigm is the formation of competences of student youth based on value-orientations, which will contribute to the formation of creative, active, gifted, intellectually and spiritually developed citizens of Ukraine capable of providing a new system of social relations and values. The essence and content of the competent approach determine values, since the formation of value orientations is the main goal and objectives of education of the individual in the educational space of the university. All this will allow university to conduct the educational process qualitatively.

Key words: student youth, competence, competence approach.

At the present stage of Ukrainian state building, the European integration processes in Ukraine have helped to find new competency approaches for the upbringing of modern students. Therefore, as ever, the role of educational actions of the society, a specially organized educational process in a higher educational institution, is growing.

Analysis of recent research and publications. Increased interest of scholars in the problem of formation of student youth value orientations in the context of the

implementation of a competent approach determines an innovative, research approach. The prospects of a competent approach in modern education were studied by Ukrainian scientists I. Bekh, N. Bibik, O. Savchenko, L. Vashchenko, O. Pometun, I. Yermakov, O. Lokshyna, L. Parashchenko, O. Ovcharuk, S. Trubacheva and others. . Scientific interest in this problem is well grounded.

The purpose of the article is to use a competent approach to the formation of the student's personality as the basis of a new educational paradigm.

Presenting main material. Ukrainian society needs new education — with a new philosophy of education, new pedagogy, new content, new relationships, which can educate a self-sufficient happy person, a developed person [2]. It is high time to evaluate education by the results of the achievement of life's personal success, in terms of its readiness for the future, namely: the ability to work independently, make decisions, communicate. Implementation of the main ideas of the competence approach is one way of reforming the content of education and aligning it with modern inquiries, integration into European and world educational spaces. Based on sociological research carried out in Ukraine, it is determined that only 8.2% of students are ready for a future independent life; on contrary 41% of students need help during their professional development.

Recently, one can notice that more and more attention is paid to reorientation of the assessment of the results of education from the concepts of "education", "general culture" towards the concept of "competence" and "competency", which can ensure the achievement of a new qualitative education, aimed at personality comprehensive development, preparation for active and effective participation in public life, with the greatest benefits for themselves and for society as a whole.

It worth studying deeply the concepts of competence and competency approach. Organization for Economic Cooperation and Development (OECD) highlights the detailed study and implementation of key competencies in the new content of education, which will enhance the competitiveness of a competent professional with a high level of general culture in the labor market; the ability of the individual to perceive and respond to individual and social needs; a complex of relations, values, knowledge and skills in the conditions of global competition. Based on scientific research, J. Raven defines 39 components of competence, namely: readiness, ability, tendency, predisposition, critical thinking, control of one's own

activities, self-confidence, ability to study independently, readiness to solve problem issues, innovative approach to achieve the goals set, persistence, responsibility, ability to listen to others and hear, solve problem situations, etc. [4, 281-296].

Such a definition of the essence of concepts of competencies, above all, coincides with the views expressed by Ukrainian scholars. In the national scientific literature the definition of competence proposed by S. Goncharenko became a relevant, the scholar defines it as a set of knowledge, skills and abilities necessary for effective professional activity: the ability to analyze, predict the effects of professional activity. I. Bekh argues that "the interpretation of the concept of competence is very broad ..." [1,5].

In the "National Framework of Higher Education Qualifications", competencies are characterized as knowledge and skills that indicate the student's ability to understand, execute, reflect, express an authoritative statement in a particular field of issues in specific circumstances, as outlined by the specialist's educational qualification [3].

Some Ukrainian scientists rightly point out that the meaning of the concept of "competence" should include values, motives, attitudes, as is the case in most statements of foreign scholars. The most relevant in the domestic pedagogical science is the one of O. Pometun, which refers knowledge, skills, skills and attitudes to the content of competence. In view of this, an important task of the higher education institution is the creation of university educational space, which will promote the creation of conditions for the development of social and creative activity of student youth, their attraction to the values and meanings of social life, national and universal values formation and assimilation by students towards oneself, family, people, creative work, nature, society and the state [2].

The views of one of the prominent Ukrainian scientists, I. Bekh, on the value sphere of student youth are essential. Valuable system of the past century collapsed, contradictory, consciously and systematically is formed a new one, where values and value-orientations are the criteria for regulating the situation of youth in society and the history of Ukraine's development. This new system will provide conditions for the formation of an active civic position and responsibility for the fate of Ukraine, critical thinking, general cultural competence [1].

Conclusions and prospects of research. So, summing up the above, one can conclude that the formation of student youth competences is one of the most pressing problems of

education, the solution of which will ensure the quality of the educational process, which is possible only with the consistent modeling of the whole educational system through the use of non-standard forms, methods and means of study. Higher educational establishment is one of the most significant spheres of educational and professional activity of youth and has a powerful potential in the field of students' value world formation.

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Intensification of Cadet's Foreign Language Competence Formation Through the Role-Playing Games

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Abstract

Knowledge of a foreign language for an officer, is not only requirement of today's world, but also a way to achieve interoperability in military sphere with NATO countries. Modern challenges and threats for the state's security causes absolutely new approaches for education and training future officers of the Armed Forces of Ukraine.

The article considers the importance of role-playing games as a method for intensifying formation of foreign language competence of cadets from higher military educational institutions. Effective foreign language communication under conditions of international peacekeeping and security operations, will greatly facilitate the process of interaction in foreign language environment. Fulfillment of professional duties and everyday tasks among future officers who speak foreign language depends, precisely, on practical training and development of communicative situational tasks. Thus, there is an urgent need to replace the traditional methods of teaching with new, effective and motivational ones. The author outlines the advantages and disadvantages of applying role-playing games during classes. It is noted that simulation of professional situations at lessons through the role-playing games increases cadet's motivation for learning foreign language, and also they are an effective mean of mastering knowledge, skills and abilities in specific foreign language environment taking into consideration lack of time, and also undoubtedly contributes to enhancement of cognitive activity.

Key words: foreign language competence, interactive learning, role-playing games, learning motivation, activity, cognitivism.

Introduction. Modern scientists from Ukrainian military educational institutions are looking for intensifying methods of teaching cadets under changing conditions. Newly-faced challenges and threats made us achieve interoperability with NATO member countries as quickly as possible. That is why appeared an urgent need of changing the old approaches to modern and effective ones.

Methodology. Among 3 main models of learning, active passive and interactive, only the last one represents active interaction between students and a teacher. According to O. Pometun [4] definition, interactive learning is a special form of organization cognitive activity, which has defined, predictable goal - to create comfortable learning conditions under which each student will feel his own successful and intellectual abilities. Interactive learning includes: modeling of life situations related to the direct fulfillment of official duties by serviceman, the use of role and business games, problem solving and tasks based on the analysis of orders and the conditions for the accomplishment of tasks.

Discussion. A role-playing game is a kind of triangle, which comprises, gaming and educational activities. First of all, cadets perceive it as playing activities, where they can try different roles in different situations. But in this case, educational nature of role playing game is often not realized. But as for a teacher, he/she deliberately considers the role-playing game as a form of practicing communication skills. And the aim of a game lies primarily in the development of speaking skills and abilities [6].

In most cases, teacher is not able to comprehend correctly what does cadet could say from his own. In this case, the teacher is advised to be guided by the principle of conscious activity. The basis of this principle are the following postulates [5] for a lecturer: 1) he/she must know the individual interests of students; 2) create such situational conditions for students that requires from them to identify and explain the differences between facts and knowledge, but this should not be done within available time; 3) should be aware of conditions that facilitate involvement of students in collective forms of work (in our case, the team has a training group of future officers of the AFU).

Role-playing game is an imagery situation where students play characters and roles and interact with each other. It will help cadets with the language and make them comfortable and confident to do the same in real life. The best type of role-playing game is one that creates a sense of conflict. Role-playing games help to develop: empathy, interpersonal skills, ability to handle future scenarios [4]. A role-play as a teaching strategy, provides students an equal playing field, where they all have the same opportunity to engage and learn through imaginative process together. Role-playing is an instructional method including active participation, dramatization, participants and characters [8]. It helps to arouse feelings and provoke an emotional response by using real-life simulation, script-free simulation which creates understanding of behaviors.

These are advantages and disadvantages of using the role playing games during lessons in military educational institutions.

Advantages of role-playing games:

- narrow distance between new comers and professionals;
- bridge the gap between understanding and confidence;
- provide opportunity to explore feelings and attitudes to different specific situations;
- help to make abstract problems more concrete;

- involves experiential learning;
- integrates knowledge and skills;
- develop communication and cultural competence;
- improve decision-making and problem solving skills;
- enhances observation skills and comprehension of complex behaviors under different conditions and lack of time;
 - provide immediate feedback;
 - involve comparing and contrasting positions for one issue;
 - promote lifelong learning and discover cognitive skills;
 - allow exploration of different types of scenarios;
 - stimulate team building;
 - allow to practice skills for further development;
 - provide information for cadets with sensitive situations (cultural, ethnical);
 - allow to test communication skills;
 - students can experiment with decisions in a risk-free environment.

As for disadvantages of role-playing games they are the following:

- limited to small groups;
- over exaggerating roles;
- too dramatic:
- role development insufficient;
- stereotyping;
- unfavorable environment for discipline;
- resistance to participate;
- involves large time commitment for faculty;
- seem like a real game, but learning results are unknown;
- difficult to evaluate.

Such communicative method of learning foreign language is highly effective and is achieved through the implementation of communicative-cognitive tasks with the help of a foreign language [3; 10; 14]. Work in small groups should be used to solve complex problems that require collective intelligence. If the efforts and time spent do not guarantee the desired result, it is better to choose a pair of work or any of the above technologies for quick interaction

[1; 2; 9; 11; 12]. It is advisable to use small groups only when the task requires a joint, not an individual job [7; 13].

Conclusion. The most important advantage of applying interactive teaching methods is the extremely important simulation of specific situations, that may occur when performing duties in international operation with the help of role-playing games. In this case, a lecturer is able to direct the lesson material for more practical use, increase motivation for cognitive activity among future officers, and improve communicative skills for achieving the joint task with further participation in international peacekeeping and security operations. It was also defined, that role-playing games, as well as game training, reflect the problem of certain situational tasks and is an effective means of improving knowledge, skills under conditions of foreign environment and lack of time. In this case, it is possible to highlight certain statements of the problem, which will determine the role-play and its didactic content.

Further research will require the development of a didactic filling of role-playing games with foreign language learning future officers in the training future officers for international peacekeeping and security operations.

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<u>Translation of the Title, Abstract and References to the Author's Language</u>

УДК 372.881

Гребенюк Л.В. Інтенсифікація формування іншомовної компетентності у курсантів через рольові ігри.

Знання іноземної мови не лише вимога сучасності, а й шлях до досягнення взаємосумісності учасників у військовій сфері з країнами-членами НАТО. Сучасні виклики та загрози безпеці нашої держави диктують нові підходи до підготовки майбутніх офіцерів Збройних Сил України. У статті розглядається значення рольових ігор як методу інтенсифікації формування іншомовної компетентності у курсантів вищих військових навчальних закладів. Ефективна іншомовна комунікація у міжнародних операціях із підтримання миру і безпеки значною мірою полегшує процес взаємодії в іншомовному середовищі. Виконання професійних обов'язків майбутніми офіцерами іноземною мовою залежить від їх практичної підготовки та відпрацювання комунікативних ситуативних завдань. Тому, виникає необхідність пошуку заміни

традиційних методів навчання більш новими, ефективними та мотиваційними, адже неможливо забезпечити якісне виконання вищезазначених завдань без використання інтерактивних методів навчання. При цьому, надзвичайної важливості набуває імплементація іншомовних знань через застосування рольових ігор на заняттях. Автором визначено переваги та недоліки застосування рольових ігор під час проведення занять. Зазначається, що моделювання професійних ситуацій на заняттях за допомогою рольових ігор підвищує мотивацію курсантів до вивчення мови, а також є ефективним засобом засвоєння знань, навичок, умінь у конкретному іншомовному обстановці в умовах дефіциту часу, що беззаперечно сприяє підвищенню пізнавальної діяльності.

Ключові слова: майбутні офіцери, іншомовна компетентність, інтерактивне навчання, рольові ігри, мотивація до навчання, когнітивізм.

Гребенюк Л.В. Интенсификация формирования иноязычной компетентности у курсантов через ролевые игры.

Знание иностранного языка – это не только требование современности, но и путь к достижению совместимости служащих в военной сфере. Современные вызовы и угрозы безопасности нашего государства диктуют поиск новых подходов в подготовке будущих офицеров Вооруженных Сил Украины. В статье рассматривается значение ролевых игр как метода интенсификации формирования иноязычной компетентности у курсантов высших военных учебных заведений. Эффективная коммуникация в международных операциях по поддержанию мира и безопасности в значительной степени облегчит процесс взаимодействия в иноязычной среде. Выполнение профессиональных обязанностей будущих офицеров на иностранном языке зависит уровня практической подготовки и отработки коммуникативных ситуативных задач. Таким образом возникает острая необходимость замены традиционных методов обучения более новыми, эффективными и мотивационными. При этом, чрезвычайной важности приобретает имплементация знания ИЯ через применение ролевых игр на занятиях. Автором определены преимущества и недостатки применения ролевых игр во время проведения занятий. Отмечается, что моделирование профессиональных ситуаций на занятиях с помощью ролевых игр повышает мотивацию курсантов к изучению ИЯ, а также выступает эффективным средством усвоения знаний, навыков, умений в конкретной иноязычной обстановке в условиях дефицита времени, что, безусловно, способствует повышению познавательной деятельности курсанотов.

Ключевые слова: будущие офицеры, иноязычная компетентность, интерактивное обучение, ролевые игры, мотивация к обучению, когнитивизм.

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Criteria, Indicators and Levels Future Primary School Teacher's Readiness to Collaboration with Heterogeneous Groups of Students

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Abstract

The article deals with the problem of future primary school teacher's readiness to collaboration with heterogeneous groups of students in the conditions of New Ukrainian School. The results of the theoretical research performed on the basis of the analysis of literary and scientific sources devoted to the study of the essence of " future primary school teacher's readiness to pedagogical interaction with heterogeneous groups of students" as a dynamic integrative personal formation, allowed to determine the following main structural components: motivational-value, informational- cognitive, person-communicative and reflexive-activity.

The authors analyzed the definitions of "criterion" and "indicator" and presented the criteria and corresponding indicators of the formation of future primary teacher's readiness to pedagogical interaction with heterogeneous groups of students, in particular motivation-value, information-cognitive, person-communicative and reflective-activity, as well as it was characterized in detail by levels of its formation (low, medium and high).

Key words: future primary school teacher's readiness to collaboration with heterogeneous groups of students, criteria, indicators, levels.

Актуальність дослідження. На сучасному етапі розвитку педагогічної теорії та практики актуального характеру набувають питання фахової підготовки майбутніх вчителів початкової школи, компетентних та зорієнтовних на формування всебічно розвиненої особистості кожного учня, здатного до успішної співпраці з різноманіттям учнівської аудиторії, виховання в кожного учня моральнодуховних інтересів, якостей, що складають вселюдські цінності. Для ефективності професійної діяльності важливо, щоб майбутній педагог професійно діяв в ситуації невизначеності, демонстрував високий рівень толерантності та коректності особистісних та професійних відносин з всіма суб'єктами освітнього процесу в умовах Нової української школи.

Аналіз останніх досліджень і публікацій. Фундаментальні питання професійно-педагогічної підготовки освітянських кадрів і формування готовності майбутніх учителів до професійної діяльності розглядають О. Абдулліна, А.Алексюк, В.Бондар, Р.Вайнола, Ю.Галагузова, Л.Завацька, І.Звєрєва

Б.Гершунський, С.Гончаренко, К.Дурай-Новакова, М.Євтух, І.Зязюн, А.Капська, З.Левчук, Л.Маєвська, О.Матвієнко, Л.Міщик, О.Міщенко, О.Карпенко, І.Ковчина, Г.Лактіонова, О.Матвієнко, В.Поліщук, В.Сластьонін, В.Щербина, С.Харченко та ін

Розглянувши роботи різних авторів з питань готовності до професійної діяльності, слід зауважити, що єдиного підходу до трактування цього питання не має. У своїх розвідках науковці розкривають проблеми формування готовності до професійного саморозвитку (О.Пєхота), інноваційної професійної діяльності (В.Шубинський), саморегуляції педагогічної діяльності (А. Ліненко). Предметом дослідження були питання структури готовності (Н. Кузьміна); показників готовності до педагогічної діяльності (О.Балл); змістових характеристик поняття готовності (В.Моляко). У наукових дослідженнях значне місце посідає розроблення психологічної концепції готовності, яка розглядається як установка (Д.Узнадзе), психічний стан (Л.Кандибович), комплекс здібностей (Г. Балл).

Розглянувши роботи різних авторів з проблеми готовності до професійної діяльності майбутніх педагогів, піддавши аналізу структурні компоненти готовності, виконані різними вченими ми прийшли до висновку, що єдиного підходу з цього питання немає. У структурі готовності майбутніх вчителів початкових класів до педагогічної взаємодії з гетерогенними групами учнів ми виділили 4 структурних компонентів готовності майбутніх вчителів початкової школи до педагогічної взаємодії з гетерогенними групами учнів: мотиваційноціннісний, інформаційно-когнітивний, особистісно-комунікативний та рефлексивнодіяльнісний компоненти, які тісно пов'язані між собою, оскільки мають єдину мету.

Таким чином, виходячи з вищенаведеного, ми визначили мету та завдання **статті** — визначити критерії, показники та рівні готовності майбутніх учителів початкової школи до педагогічної взаємодії з гетерогенними групами учнів.

Виклад основного матеріалу дослідження. Необхідною і найважливішою передумовою визначення ефективності формування готовності студентів до педагогічної взаємодії з гетерогенними групами учнів є обгрунтування відповідних критеріїв і показників сформованості досліджуваної якості.

Аналіз психолого-педагогічних джерел свідчить про те, що проблема критеріїв та показників сформованості різноманітних складників професійно-педагогічної готовності майбутніх вчителів початкової школи висвітлюються у працях багатьох дослідників (Ю.Лук'янова, Г.Олійник, Н.Ковалевська, Л.Кідіна, Т.Швець, Н.Доценко та інші)

Дослідники майже єдині у тлумаченні поняття «критерії», яке спирається на довідникові видання, де критерій (від грец. kriterion — засіб судження, мірило) визначається як: «мірило оцінки, думки» [5; с.307]; «ознака, на підставі якої дається оцінка якого-небудь явища, дії; ознака, взята за основу класифікації» [7; с.163].

Термін «показник» визначається як: свідчення, доказ, ознака чого-небудь; наочні дані про результати якоїсь роботи, якогось процесу; дані про досягнення чого-небудь [3]. Влучною є думка Н. Баловсяк, що показники – це кількісні та якісні характеристики сформованості кожної якості, властивості, ознаки об'єкту, котрий вивчається, тобто міра (ступінь) сформованості того чи іншого критерію [2]

З метою ефективного визначення критеріїв готовності майбутніх вчителів початкової школи до педагогічної взаємодії з гетерогенними групами учнів доцільно встановити співвідношення понять "показник" та "критерій". Беручи до уваги сутність "критерію", "показник" виступає як співвідношення окремого до загального: де кожен критерій являє собою групу показників, які якісно та кількісно його характеризують. При цьому показник більш динамічний, а критерій стабільний, а кожен із визначених критеріїв та показників має свої особливості.

Виходячи з теоретично обгрунтованої сутності та структури готовності студентів до педагогічної взаємодії з гетерогенними групами учнів, нами виділені основні критерії ефективності цього процесу, що охоплюють виділені та науково обґрунтовані складники готовності майбутнього вчителя початкової школи до педагогічної взаємодії з гетерогенними групами учнів, а саме: мотиваційноціннісний, інформаційно-когнітивний, особистісно-комунікативний та рефлексивно-діяльнісний.

В основі обгрунтування мотиваційно-ціннісного критерію лежить твердження, що будь-яка діяльність людини викликана певними мотивами. Поняття "мотив" означає спонукання до діяльності, спонукальну причину дій, вчинків. Формування готовності майбутніх вчителів початкової школи до педагогічної взаємодії з гетерогенними групами учнів розглядається як:

- сформованість особистої мотиваційної налаштованості студентів на таку діяльність у якій віддзеркалюються мотиви, потреби, інтереси особистості, бажання здобувати знання, уміння, навички та бажання долати труднощі задля успішної співпраці з гетерогенними групами учнів, а також бажання вдосконалюватися та саморозвиватися в професійній діяльності;

- сформованість загальнолюдських ціннісних орієнтацій майбутніх вчителів початкової школи, що включає в ціннісне ставлення особистості майбутнього педагога до різноманіття учнів, їх унікальності та неповторності, усвідомлення важливості прийняття та розуміння їх відмінностей; володіння морально-етичним регулятором взаємовідносин особистості педагога з гетерогенними групами учнів, а саме інклюзивними цінностями, які мають бути притаманні майбутньому педагогу Нової української школи (толерантність, емпатія, любов, емоційна мобільність, відповідальність, активність, моральність та інше).

Інформаційно-когнітивний критерій передбачає:

- засвоєння системи відповідних професійно значущих знань в галузі «Педагогіки багатоманіття", які дозволяють формувати в майбутніх спеціалістів цілісне уявлення про гетерогенний аспект освіти, та активне використання знань на практиці.
- обізнаність та здатність опрацьовувати новий матеріал, самостійно здобувати знання та підвищувати рівень своєї професійної компетентності. Даний критерій відображує повноту й дієвість знань у процесі педагогічної взаємодії з гетерогенними групами учнів. Це знання теоретичних основ «Педагогіки багатоманіття»: знання сутності понять «гетерогенність» та «інклюзія» в освітньому процесі та їх відмінність; знання критеріїв багатоманіття та типологію гетерогенних груп учнів; знання закономірностей та принципів педагогіки багатоманіття; знання педагогіки толерантності в гетерогенному освітньому середовищі; знання педагогіки співпраці з гетерогенними групами учнів.

критерій Особистісно-комунікативний характеризується наявністю професійно важливих особистісних якостей, які впливають на результат педагогічної взаємодії з гетерогенними групами учнів, а саме толерантністю; сформованістю організаторських, комунікативних та проектувальних умінь та навичок майбутніх вчителів початкової школи будувати різновекторні толерантні взаємини з гетерогенними групами учнів та знаннями законів спілкування, норм професійної етики, технології та психології педагогічного спілкування, міжнаціонально-специфічних особливостей спілкування в умовах гетерогенного освітнього середовища.

Сутність рефлексивно-діяльнісний критерію передбачає :

- здійснення майбутнім педагогом об'єктивного осмислення й оцінки власних дій у процесі професійного саморозвитку, що дозволяє виокремити складові успіху або виявити причини невдачі своєї діяльності;
- сформованості у студентів умінь оцінювати навчально-виховний процес в психолого-педагогічних аспектах з урахуванням реалізації індивідуального та диференційованого підходів; регулярно та свідомо здійснювати рефлексію власної професійної діяльності.

Результати теоретичного аналізу проблеми доводять, що сформованість готовності майбутніх вчителів початкової школи до педагогічної взаємодії представляє цілісну взаємодію всіх вище окреслених компонентів, критерії та показники сформованості яких представлено у табл.1.

Критерії та показники готовності майбутніх вчителів початкової шкли до педагогічної взаємодії з гетерогенними групами учнів.

Критерії	Показники								
	- сформованість стійкої мотивації до прийняття та								
	розуміння гетерогенності в освітньому середовищі;								
	- позитивне налаштуванням та орієнтації особистості								
	майбутнього педагога на інклюзивні цінності та								
Мотиваційно-	толерантну співпрацю з гетерогенними групами учнів;								
ціннісний	- прагнення до збагачення знань в галузі «Педагогіки								
	Багатоманіття»,								
	- бажання досягати успіху та долати труднощі у								
	спілкуванні та співпраці ;								
	- потреба у саморозвитку та самовдосконалення в								
	професійній діяльності.								
	- повнота, змістовність, глибина, цілісність, системність та								
Інформаційно-	дієвість знань майбутнього вчителя початкової школи в								
когнітивний	галузі «Педагогіки Багатоманіття»:								
	- знання основ «Педагогіки Багатоманіття», критеріїв								
	багатоманіття, типології гетерогенних груп, принципи та								
	закономірності педагогіки багатоманіття;								
	- розуміння понять «гетерогенність», «гетерогенна група»,								

«інклюзія», «особливі освітні потреби» та «толерантність» в освітньому контексті; - обізнаність полівимірного педагогічного основами мислення; - знання основ та видів комунікації та педагогічної взаємодії з гетерогенними групами учнів; - обізнаність основними діагностики гетерогенних груп учнів та педагогічними технологіями. - сформованість особистісних якостей: толерантність, мобільність емпатія, стресостійкість, емоційна Особистісногетерогенному освітньому середовищі; комунікативний - здатність сприймати та розуміти кожну особистість, як неповторність унікальність, незважаючи психо-фізичні, інтелектуальні, поведінкові інші та особливості; розпізнавати внутрішній - уміння стан **УЧН**ів гетерогенних груп, володіння засобами невербального спілкування; - уміння толерантно спілкуватися учнівським різноманіттям, створюючи атмосферу довіри у спілкуванні та співпраці, яка дозволить кожному учню відчувати себе повноцінною та здатною на успіх особистістю; - уміння мислити полівимірно аналізуючи педагогічні ситуації в площині гетерогенності та розв'язуючи конфліктні ситуації; -уміння рефлексувати власну педагогічну діяльність та особистісні якості у співпраці з гетерогенними групами учнів; - уміння професійно оцінювати педагогічні ситуації в площині гетерогенності; проводити коригування власної Рефлексивнодіяльності дотримуючись принципів педагогіки діяльнісний багатоманіття; -вміння діагностувати гетерогенні групи учнів згідно

критеріїв багатоманіття та їх особливі освітні потреби;

- -здатність розв'язувати конфліктні ситуації та попереджувати конфліктність в гетерогенному освітньому середовищі;
- -здатність налагоджувати продуктивні різновекторні толерантні зв'язки між всіма учасниками освітнього процесу через призму інклюзивних цінностей;
- -уміння свідомо контролювати результати своєї діяльності, рівень власного розвитку, динаміки особистісного зростання;
- -вміння організовуючи педагогічну взаємодію з гетерогенними групами учнів добираючи продуктивні форми, методи та педагогічні технології;

Використання зазначених критеріїв та показників готовності майбутніх вчителів початкової школи до педагогічної взаємодії з гетерогенними групами учнів дозволило визначити рівні її сформованості, тобто послідовність змін якісних станів системи.

Наголосимо, що "рівень" розглядається як сутність розвитку певних якостей спеціаліста, що визначається набором об'єктивних чинників — критеріїв та показників, які дають змогу комплексно оцінити певне педагогічне явище та мати відповідне теоретичне і практичне обґрунтування певного педагогічного феномена.

Як засвідчив аналіз психолого-педагогічних джерел, учені для вимірювання сформованості готовності майбутніх педагогів до професійної діяльності виокремлюють трирівневу або чотирирівневу шкалу.

Якісна і кількісна характеристика визначених критеріїв і показників готовності майбутніх вчителів початкової школи до педагогічної взаємодії з гетерогенними групами учнів дає можливість виокремити три рівні прояву цього феномена – високий, середній та низький.

Студентам, які перебувають на **низькому рівні** сформованості готовності до педагогічної взаємодії з гетерогенними групами учнів не виявляють інтересу та відсутність мотивації до педагогічної взаємодії з гетерогенними групами учнів, байдуже ставлення до результативності співпраці, відсутність бажання долати труднощі у співпраці з гетерогенними групами учнів. Студенти мають пасивний,

епізодичний інтерес до опанування знаннями в галузі «Педагогіки Багатоманіття». Знання засвоюються формально. Майбутні педагоги уникають участі в організації та продуктивних та різновекторних толерантних налагоджуванні гетерогенними групами учнів, у студентів відсутні діагностичні та прогностичні вміння конфліктних ситуаціях. Рефлексивно-діяльнісний компонент характеризується обмеженістю вмінь до рефлексії та професійній оцінці своєї діяльності, низькою динамікою особистісного зростання, сформованість таких професійно необхідні якостей, зокрема як толерантність, емпатійність, стресостійкість, емоційну мобільність, креативність тощо.

Студент, навчальні досягнення якого відповідають "низькому" рівню, переважно діє за підказкою, часто не може пояснити, на що спрямовані започатковані дії. Має відсутні навички організації самостійної роботи.

Студентам, у яких виявлено **середній рівень** сформованості готовності до педагогічної взаємодії з гетерогенними групами учнів, властива нестійка мотивації до педагогічної взаємодії з гетерогенними групами учнів, епізодичний інтерес до формування готовності до педагогічної взаємодії з гетерогенними групами учнів. Запас базових знань в галузі «Педагогіки Багатоманіття» дозволяє успішно виконувати типові завдання. Базові уміння загалом засвоєні, але студенти недостатньо вміють їх реалізовувати в співпраці з гетерогенними групами учнів на практиці.

На цьому рівні сформованості готовності до педагогічної взаємодії з гетерогенними групами учнів студенти вміють контролювати та керувати своїми діями у традиційних обставинах, регулярно усувають недоліки навчальної та професійної підготовленості. Динаміка особистісного зростання: сформованість таких професійно необхідні якостей, зокрема толерантність, емпатійність, стресостійкість, емоційну мобільність, креативність у таких студентів розвинені, але мають нестійку основу.

Важливою умовою для віднесення студента до групи середнього рівня навчальних досягнень ϵ наявність у нього ініціативності у досягненні професіоналізму, усвідомлення недоліків своєї підготовки та вміння критично мислити в конфліктних ситуаціях, а також прогнозувати та попереджати їх.

Для студентів, що досягли **високого рівня** сформованості готовності до педагогічної взаємодії з гетерогенними групами учнів, властива стійка позитивна мотивація до педагогічної взаємодії з гетерогенними групами учнів, стійке

позитивне налаштування та орієнтація особистості майбутнього педагога на інклюзивні цінності, толерантну співпрацю з гетерогенними групами учнів дотримуючи принципів «Педагогіки Багатоманіття».

Студентам цієї групи характерні грунтовні та дієві знання в галузі «Педагогіки Багатоманіття», успішна реалізація знань, умінь та навичок у співпраці з гетерогенними групами учнів на практиці. У них спостерігається високий рівень володіння полівимірним професійним мисленням в площині гетерогенності, що сприяє результативності вирішення конфліктних ситуацій та запобігання конфліктності в майбутній професійній діяльності. У студентів на високому рівні сформовані навички організації самостійної роботи, що надає діяльності творчого характеру. Майбутні вчителі початкової школи компетентні діяти, оцінювати та рефлексувати свої дії у стандартних і нестандартних педагогічних ситуаціях, мають високу динаміку особистісного зростання: сформованість таких професійно необхідні якостей, зокрема толерантність, емпатійність, стресостійкість, емоційну мобільність, тощо. У співпраці в умовах гетерогенності учнівської аудиторії та конфліктних ситуаціях такі студенти, як правило, емоційно стримані та мобільні, та позитивно налаштовані.

Студенти прагнуть до творчого та професійного самовдосконалення у процесі фахової підготовки, задля успішної педагогічної взаємодії з гетерогенними групами учнів.

Висновки. Аналіз психолого-педагогічної літератури засвідчує, сформованість готовності майбутніх вчителів початкової школи до педагогічної можна оцінювати за мотиваційновзаємодії з гетерогенними групами учнів інформаційно-когнітивним, особистісно-комкнікативним ціннісним. рефлексивно-діяльнісними критеріями. Використання зазначених критеріїв дозволяє виділити три рівні сформованості готовності майбутніх вчителів початкової школи до педагогічної взаємодії з гетерогенними групами учнів (низький, середній та високий) і далі визначити стан сформованості у них цієї професійно важливої якості.

Перспективами подальшого дослідження може бути експериментальна перевірка ефективності формування готовності майбутніх вчителів початкової школи до педагогічної взаємодії з гетерогенними групами учнів із застосуванням виділених критеріїв і показників досліджуваної якості.

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Translation of the Title, Abstract and References to the Author's Language

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Матвієнко Олена, Тутова Тетяна. Критерії, показники та рівні готовності майбутніх вчителів початкової школи до педагогічної взаємодії з гетерогенними групами учнів.

У статті розглядається проблема готовності майбутніх вчителів початкової школи до педагогічної взаємодії з гетерогенними групами учнів до педагогічної взаємодії в умовах Нової української школи. Результати теоретичного дослідження, виконаного на підставі аналізу літературно-наукових джерел, присвячених вивченню суті «готовності майбутніх вчителів початкової школи до педагогічної взаємодії з гетерогенними групами учнів» як динамічного інтегративного особистісного утворення, дозволили виокремити такі її основні структурні компоненти: мотиваційно-ціннісний, інформаційно-когнітивний, особистісно-комунікативний та рефлексивно-діяльнісний.

Авторами здійснено аналіз дефініцій «критерій» та «показник» та представлено критерії та відповідні показники сформованості готовності майбутніх вчителів початкової школи до педагогічної взаємодії з гетерогенними групами учнів зокрема мотиваційно-цінністний, інформаційно-когнітивний, особистісно-комунікативний та

рефлексійно-діяльнісний, а також детально охарактеризовано рівні її сформованості (низький, середній та високий).

Ключові слова: готовність майбутніх вчителів початкової школи до педагогічної взаємодії з гетерогенними групами учнів, критерії, показники та рівні готовності.

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Features of the Development of the Effective and Reflective Component of Students' Civic Engagement at the University

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Abstract

The article deals with the features of the development of the effective and reflective component of civic engagement of university students after leadership training. The characteristics of the levels (insufficient, initial, sufficient and creative) of the effective and reflexive component of the inquired quality are presented. During the search phase of the pedagogical experiment, we determined the pedagogical conditions that should positively affect the efficiency of the formation of civic activity of university students. These conditions include: reliance on the internal needs of the student, the use of modern ICT, the content and methodological support of the work of student supervisors, the organization and conduct of leadership training. The dynamics of the levels of the effective and reflexive component of student civic engagement before and after the formative experiment are clearly illustrated. The content and characteristics of the levels of civic engagement (insufficient, initial, sufficient and creative) are defined.

Key words: civic engagement, students, society, student self-government, university.

Постановка проблеми у загальному вигляді. В умовах сучасних цивілізаційних змін виникає потреба у громадянині, який би був соціально активним, компетентним фахівцем, високопрофесійним лідером з особистісними якостями, затребуваними на світовому ринку праці, такими як: ініціативність, громадянська активність, управлінська компетентність, чесність, відкритість, цілеспрямованість, відповідальність, самоорганізованість, прагнення до самовдосконалення і саморозвитку.

Формулювання цілей статті. Метою статті ϵ висвітлення окремих методів, що використовувалися у формуванні результативно-рефлексійного компоненту громадянської активності студентів університету.

Аналіз останніх досліджень та публікацій. Дослідженням проблем підготовки майбутніх фахівців в умовах університету присвячені праці філософів, педагогів, психологів та соціологів: українських: В. Андрущенка, Л. Вовк [1], І. Зазюна, І. Беха,

Г. Балла, С. Максименка, а також і зарубіжних (М. Аріян, В. Біблер, Б. Гершунський, І. Зимня, Н. Ішханян, В Сластьонін, Р. Adler, D. Brown та ін.) вчених.

Вивченню різних аспектів громадянського та національного виховання студентської молоді присвячені праці О. Алексєєва, Я. Боренько, О. Гевко, В. Іванчук, О. Карпенко [3], А. Панчук, Л. Петько [5; 6; 7; 11], Ю. Руденка, О. Войчун [12] та інших. Проте сьогодні відсутні дослідження, в яких би розглядались способи розвитку результативно-рефлексійногокомпоненту громадянської активності студентів університету.

Виклад основного матеріалу. Аналіз наукової літератури [2; 4; 8], а також документів, що визначають сутність, мету, і способи громадянського виховання студентської молоді дозволяє громадянську активність студентів університету розглядати як комплекс особистісних якостей і рис характеру, що є основою особливого способу мислення та спонукальною силою повсякденних дій, вчинків, поведінки. Цими якостями є такі: патріотична самосвідомість, відповідальність і мужність, суспільна ініціативність, готовність і здатність працювати для розквіту Батьківщини, захищати її, підносити її міжнародний авторитет; повага до Конституції, законів української державності, висока правосвідомість, досконале знання державної мови, повага до традицій та історії рідного народу, дисциплінованість, працьовитість, творчість, піклування про природу, фізична досконалість і моральна чистота, гуманність, висока культура міжнаціонального спілкування.

На основі праць вчених П. Ігратенка, В. Поплужного, Т. Саврасової-В'юн, О. Сухомлинської у сфері громадянської освіти та виховання *структуру громадянської активності студентів університету визначаємо як сукупність таких компонентів: когнітивно-інформаційного, мотиваційно-ціннісного, операційно-діяльнісного та рефлексійно-результативного.* В межах даної публікації розглянемо способи розвитку рефлексійно-результативного компоненту громадянської активності студентів університету, що використовувалися нами в ході формувального етапу педагогічного експерименту.

Результативно-рефлексійний компонент громадянської активності студентів університету включає: наявність критичного мислення, вмінь аналізу та прогнозу результативності власних дій стосовно інших людей та суспільства в цілому. Дана

складова передбачає здатність у студента під час аналізу та обговорення сутностісуспільних подій, проектувати їх на себе, тобто задавати собі запитання: «А як я можу вплинути на покращення ситуації?»; формулювати власні норми і цінності, інтеріоризуючи їх із загальнолюдських; висловлювати, обгрунтовувати, відстоювати в усній та письмовій формі власну думку про суспільну проблему, подію, явище.

В основу методики дослідно-експериментальної роботи покладено *критеріально-рівневий підхід*, що дав змогу на основі підходів відомих науковців (Г. Гревцевої, В. Краєвського, А. Маркової, Н. Морзе та ін.) визначити рівні рефлексійно-результативного компоненту громадянської активності студентів університету.

Змістове наповнення рівнів результативно-рефлексійного компонента громадянської активності представлено в таблиці 1.

Таблиця 1

Характеристика та рівні сформованості результативно-рефлексійного компоненту громадянської активності студентів університету

Рівні сформованості	Характеристика					
Недостатній	Відсутня здатність до самоаналізу навчальної діяльності (оскільки суспільно-корисна діяльність відсутня).					
Початковий	Наявність фрагментарного самоаналізу та самооцінки суспільно-корисної та навчальної діяльності.					
Достатній	Присутні самоаналіз та самооцінка у сфері власних вчинків та їх наслідків для інших людей, а також планування у сфері самовдосконалення.					
Креативний	Висока здатність до детального самоаналізу суспільно-значущої діяльності та високий рівень вимогливості до себе; стійка потреба до постійного самовдосконалення; здатність конструктивно сприймати критику.					

У ході пошукового етапу педагогічного експерименту нами були визначені педагогічні умови, що мали позитивно вплинути на ефективність формування громадянської активності студентів університету. До таких умов відносимо: опору на внутрішні потреби студента, використання сучасних ІКТ, змістово-методичне забезпечення роботи студентських кураторів, організація і проведення тренінгів лідерства. Найефективніше сприяють розвитку результативно-рефлексійного

компоненту громадянської активності запитання до студентів по закінченню тренінгів лідерства.

У рефлексії є три основні блоки питань, які повинні йти один за іншим без порушення порядку (Робити-отримувати досвід-рефлексувати досвід-отримувати знання). У ході формувального етапу педагогічного експерименту нами використовувалися три блоки запитань:

- 1) Питання про зовнішню діяльність: що тут відбувалося? що ти робив?
- 2) Питання про внутрішню діяльність (про досвід, почуття): сподобалося чи ні? Що сподобалося в тому, що робив? як ти це робив? Як саме? Які це викликало емоції і почуття? Що у тебе добре вийшло? Що б ти хотів покращити у своїх діях?
- 3) Питання про концепцію: що ти про себе дізнався? Що нового ти дізнався про себе? Яку теорію ти виявив / відкрив для себе?

Фіналом рефлексії має бути короткий змістовний висновок.

Наведемо приклади рефлексії студентів – учасників тренінгів після вправи «Підстрибування».

Сутність вправи.

Тренер: «Уміння розуміти один одного без слів не раз рятувало моє життя і моїх товаришів. Відпрацювавши цей навик, ви станете непереможні». Стоячи в колі, група рахує від 1 до ... Кожен по черзі називає чергове зростаюче число. Замість числа, що включає 3, або ділиться на 3, треба подстрибнути. Через якийсь час тих, хто помилився можна виключати. І так до переможця. Замість підстрибування можна плескати, тупотіти ногами, крутитися.

1. Питання про зовнішню діяльність: що ти робив? Що тут відбувалося?

Відповіді: «Ми разом грали в гру і нам було дуже цікаво», «Я разом з усіма грав у гру, а також намагався уважно виконувати правила гри», «Я намагалася про себе порахувати цифри, які діляться на 3», «Я намагався правильно виконувати правила гри, щоб не підвести інших», «Я отримав позитив і веселий дух».

2. Питання про внутрішню діяльність: чи сподобалося? Що сподобалося у тому, що робив? Як ти це робив? Як саме? Які емоції та відчуття це викликало?

Відповіді: «Сподобалося стрибати», «Сподобалося відчувати себе відповідальним за свої дії», «Сподобалося згадувати таблицю множення на «3», «Сподобалося відчувати

себе в одному колі з іншими», «Мені було цікаво і я отримувала задоволення під час гри», «Було відчуття хвилювання за інших», «Отримав емоції радості, цікавості, хто ж прогавить свій стрибок?!»

3. *Питання* Що в тебе добре вийшло? Щоб ти хотів покращити у своїх діях? Відповідь: «Рахувати», «Сконцентруватися на досягнутій цілі».

Динаміку рівнів результативно-рефлексійного компоненту громадянської активності студентів університету до та після формувального експерименту показано в таблиці 1 та рисунку 2.

Таблиця 2
Рівні результативно-рефлексійного компоненту громадянської активності студентів університету на початку і після завершення формувального експерименту (в абсолютних числах і %)

	Показники									
Рівень	ЕΓ		ЕГ ЕГ КГ		Γ	КГ				
	На початку		Після		На початку		Після			
			завершення				завершення			
	Осіб	%	Осіб	%	Осіб	%	Осіб	%		
Недостатній	43	23	35	18,7	46	24,5	40	21,3		
Початковий	96	51,3	90	48,1	98	52,1	100	53,2		
Достатній	31	16,6	39	20,9	32	17	34	18,1		
Креативний	17	9	23	12,3	12	6,4	14	7,4		

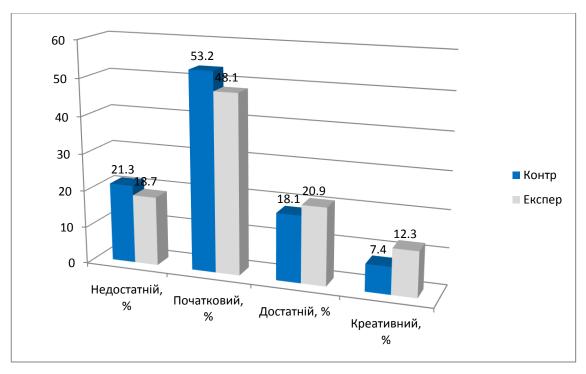


Рис. 1. Рівні результативно-рефлексійного компоненту громадянської активності студентів університету по закінченні експерименту (%).

Аналіз даних таблиці 2 та рисунка 1 дозволяє стверджувати, що в результаті впровадження у виховний процес вищих навчальних закладів експериментальної моделі простежено позитивні зміни результативно-рефлексійного компоненту громадянської активностістудентів експериментальних груп, на відміну від студентів контрольних груп, у яких динаміка досліджуваної якості була незначною. Також можна зробити висновок, що у випадку результативно-рефлексійного компоненту громадянської активності студентів університету розроблена модель та педагогічні умови найбільшою мірою сприяли зменшенню кількості студентів початкового рівня (на 3,2% в експериментальних групах порівняно з 1,1% контрольних). Як свідчать дані таблиці, за рахунок цих студентів збільшилася кількість достатнього та креативного рівнів. Загалом, в експериментальних групах спостерігається чітка тенденція збільшення кількості студентів достатнього та креативного рівнів та зменшення недостатнього порівняно із контрольними.

Висновки. Отже, запитання, що ми пропонуємо по закінченню тренінгів лідерства, позитивно впливають на зміни всіх рівнів (недостатнього, початкового,

достатнього та креативного) результативно-рефлексивного компоненту громадянської активності студентів університету (збільшується кількість студентів достатнього та креативного рівнів за рахунок зменшення кількості студентів недостатнього та початкового рівнів). Також нами була помічена активізація студентів, що брали участь у формувальному експерименті, у самостійній навчальній роботі. Несподіваний факт пояснюємо тим, що під час проведення тренінгів лідерства та запитань до учасників по їх закінченню студенти оволодівали складними вміннями і навичками бачити зміст та мету власної діяльності в широкому сенсі та пізнавальної, зокрема.

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Войчун Олена. Особливості розвитку результативно-рефлексійного компоненту громадянської активності студентів університету.

В статті розглядаються особливості розвитку результативно-рефлексійного компоненту громадянської активності студентів університету після тренінгів лідерства. Проаналізовано останні дослідження та публікації з проблеми виховання громадянської активності студентської молоді. Подані змістове наповнення та характеристика рівнів громадянської активності (недостатнього, початкового, достатнього та креативного) результативно-рефлексійного компонента громадянської активності. Визначені педагогічні умови, що мали позитивно вплинути на ефективність формування громадянської активності студентів університету, а саме: опору на внутрішні потреби студента, використання сучасних ІКТ, змістово-методичне забезпечення роботи студентських кураторів, організація і проведення тренінгів лідерства. Наочно проілюстровано динаміку рівнів результативно-рефлексійного громадянської активності студентів до та після формувального експерименту. Описано результати дослідження стану сформованості громадянської активності студентів університету, проведеного на базі Національного педагогічного університета імені М.П. Драгоманова університету та Миколаївського національного імені В.О. Сухомлинського.

Ключові слова: громадянська активність, студенти, суспільство, студентське самоврядування.

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The Basic Methodological Approaches to Vocal-Choral Teaching Children of Primary School Age

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Abstract

Defined the effective methodological approaches to vocal-choral teaching children of primary school age. Described the leading methodological approaches to vocal-choral teaching children of primary-school-age, namely personality-oriented, creative-activity approach, competency-based approaches and analyzed at a basic level. To solve the tasks, a set of theoretical methods was used: scientific and theoretical analysis, systematization and generalization.

The above-mentioned methodological approaches can be defined as leading on vocal-choral teaching children of primary-school-age. Implementation of a personality-oriented approach promotes the development of personality, unique and individual traits children of primary-school-age. Application of the creative-activity approach activates the process of forming a student as a creative person. The use of a competent approach gives impetus to creative self-actualization and self-organization of children of primary -school-age at vocal and choral classes.

Thus, the combination of the above-mentioned approaches, namely personality-oriented, creative-activity approach, competency-based, as the basic approach, creates the theoretical precondition for vocal-choral education children of primary-school-age.

Key words: vocal-choral education, children of primary-school-age, personality-oriented approach, creative-activity approach, competency-based approach.

Актуальність дослідження. Одним із основних завдань Нової української школи (НУШ) є створення системи навчання, що спрямовує учнів на отримання необхідних для життя знань та умінь, у центрі якої — особистість. Реалізація цих завдань актуалізує пошук нових методологічних підходів у всіх галузях навчання для забезпечення успішної адаптації школярів до життя у сучасному суспільстві.

Музичне, зокрема, вокально-хорове навчання – невід'ємна частина навчального процесу в цілому, спрямована на розвиток музичної культури, духовних та моральних цінностей, художньо-естетичного смаку, що є найкращими якостями особистості. У цьому контексті особливої уваги потребує визначення та обгрунтування методологічних підходів до вокально-

хорового навчання молодших школярів.

Актуальні питання вокально-хорового навчання, роботи з хором завжди привертали увагу науковців, хормейстерів, педагогів. У різний час до них зверталися Б. Асаф'єв, К. Пігров, П. Чесноков, наші сучасники: Л. Бірюкова, П. Ковалик, А. Козир, та інші. Питання вокально-хорового навчання молодших школярів у своїх працях розглядали Ю. Алієв, А. Апраксина, В.Белобородова, А. Болгарський, Л. Гавриленко, Н. Гороховська, І. Зеленецька, В. Кващук, О. Комаровська [19], А. Менабені. С. Миколінська, Д. Огороднов, Г. Стулова, Л. Хлєбникова та інші науковці. У навчанні молодших школярів 3 успіхом застосовувалися діяльнісний (Б. Ананьєв, Л. Виготський, А. Сохор та ін.) та особистісно-орієнтований (О. Рудницька, І. Якиманська та ін.) підходи. У останні роки увагу науковців привертає індивідуальний (В. Володько, Н. Заперченко) та гуманістичний підходи (І. Бужина, С. Горбенко, Л. Губарєва, А. Кияновський, Л. Петько [9; 10; 11]).

Метою нашої статті ϵ визначення методологічних підходів до вокально-хорового навчання молодших школярів.

Виклад основного матеріалу. У педагогічному словнику С. Гончаренка поняття «навчання» трактується як «цілеспрямований процес передачі і засвоєння знань, умінь, навичок і способів пізнавальної діяльності людини» [7, с. 223]. Водночас, поняття «музичне виховання» визначається як «процес цілеспрямованого пізнання музики, розвиток музично-естетичних смаків людини, збагачення її музичної культури та здібностей» [там само, с. 219], а «музична освіта» – як «сукупність знань, умінь і навичок, необхідних для практичної музичної діяльності, а також процес їх засвоєння…» [там само, с. 218].

Отже, не вдаючись у межах даної статті до детального аналізу означених понять, зауважимо, що вокально-хорове навчання є видом музичної пізнавальної діяльності, у процесі якої відбувається розвиток вокально-хорових навичок та музично-виконавських умінь. Варто відзначити, що О. Ростовський розглядає вокально-хорове навчання молодших школярів як процес спрямований на активізацію розвитку дитячого голосу і формування в учнів вокально-хорових навичок [12]. Це процес, на який впливає безліч чинників, в тому числі психологічних, і який потребує ретельного вибору методологічних підходів для його ефективності.

У межах даної статті розглянемо найбільш ефективні, на нашу думку, підходи до вокально-хорового навчання молодших школярів, а саме: особистісно-орієнтований, творчо-діяльнісний та компетентнісний підходи.

Одним із провідних підходів до вокально-хорового навчання молодших школярів науковці (В. Серіков, С. Бєлова, В. Данільчук, В. Зайцев, О. Бондаревська, І. Якиманська, О. Рудницька) визначають особистісно-орієнтований підхід.

Під особистісно-орієнтованим підходом вчені розуміють загально гуманістичний феномен, який ґрунтується на повазі прав учнів, їхнього освітнього вибору, і розглядають його як освітню систему, створення якої є «механізмом функціонування та розвитку особистості...», як педагогічну діяльність, що спрямована на виховання особистості [8, с. 16–17].

І. Якиманська розглядає особистісно-зорієнтований підхід як необхідний для розкриття особистісних рис учня, виховання у школярів унікальності та неповторності. Науковець стверджує, що «особистіно-орієнтоване навчання — це таке навчання, де на чільне місце ставиться особистість дитини, її самобутність, самоцінність, суб'єктивний досвід кожного спочатку розкривається, а потім узгоджується зі змістом освіти» [17, с. 31–42].

Сутність особистісно-орієнтованого підходу полягає у послідовному формуванні особистості (О. Рудницька). Проте, на думку В. Серікова, «особистісно-зорієнтоване навчання — це не формування особистості із заданими властивостями, а створення умов для повноцінного вияву і відповідного розвитку освітніх функцій виконавців» [3, с. 27].

Забезпечити навчання з позицій особистісно-орієнтованого підходу до вокально-хорового навчання молодших школярів може тільки педагог, який сам ϵ особистістю. Педагог має встановити міжособистісну взаємодію «учитель-учень», що допоможе побудувати діалог для обміну інтелектуальними, соціальними, духовними та моральними цінностями.

Важливо зацікавити кожного учня у колективі різними формами та методами вокально-хорового навчання, стимулювати прояв ініціативи до самостійного виконання без остраху помилки (невірного інтонування, неточності у ритмі твору тощо), заохочувати молодших школярів до елементарного аналізу власного виконання

та аналізувати виконання інших учнів, щоб спільно знаходити способи вирішення існуючих проблем; заохочувати учнів, оцінюючи не лише кінцевий результат, а й увесь процес їх вокально-хорової роботи.

Отже, у вокально-хоровому навчанні молодших школярів, особистісноорієнтовний підхід спрямований на розкриття індивідуальності школяра, створення умов для виявлення і розкриття його особистісного потенціалу.

Наступним, не менш важливим підходом щодо вокально-хорового навчання молодших школярів є творчо-діяльнісний підхід. А. Сохор вважає, що музична діяльність людини відповідає трьом етапам існування музичного твору — створення, відтворення, слухання [15]. Враховуючи думку вченого, можемо зазначити, що спів, зокрема, хоровий — це музично-пізнавальна діяльність, у процесі якої учні мають створити своє власне уявлення щодо виконання твору, спираючись на вокально-хорові уміння та навички, здобуті в процесі вокально-хорового навчання.

Знання, відомості про музику діти отримують у процесі сприйняття музики, виконання, творчої діяльності. Кожен вид музичної діяльності вимагає певних знань. Для удосконалення виконання потрібні спеціальні знання про способи та прийоми звукоутворення, звуковедення, засоби виразності. Навчаючись співу, учні набувають знання, необхідні для оволодіння співацькими навичками.

- Г. Альтштуллер зазначає, що творча діяльність людини спрямована на створення невідомих їй раніше духовних та матеріальних цінностей. Науковець вважає, що творчість не можлива без таких компонентів як фантазія та уява, що забезпечують успішний кінцевий результат творчості [1].
- Н. Ветлугіна була впевнена, що виховання повинне формувати людину нового типу, здатну до активної творчої діяльності, і наголошувала: «Мистецтво, зокрема музика, приховує у собі великі можливості для творчого розвитку підростаючого покоління» [5, с. 90].
- Б. Асаф'єв писав, що творчість сприяє більш глибокому засвоєнню музичного матеріалу і розвитку музичних здібностей у дітей. Творчою науковець вважає таку діяльність людини, в результаті якої створюється щось нове, що веде до нових знань про світ, або почуття, здатне відображувати нове ставлення до дійсності [2].

У молодшому шкільному віці яскраво проявляється здатність до творчості. Учні легко сприймають образний зміст казок, пісень, музичних п'єс, їм притаманне наслідування, природна активність та віра у свої творчі можливості. Музика стимулює молодших школярів до творчої діяльності, формує пізнавальні та емоційномотиваційні функції, розвиває творче мислення й комунікативність, а також позитивні якості характеру (систематичність, працьовитість, наполегливість).

На вокально-хорових заняттях молодших школярів особливе значення має творча діяльність дітей, яка сприяє формуванню уяви, мислення, винахідливості, творчих здібностей. Усе це приводить до формування творчої особистості, здатної самореалізуватися на кожному етапі своєї життєдіяльності. Отже, творчо-діяльнісний підхід ϵ одним із провідних підходів до вокально-хорового навчання молодших школярів.

Одним з головних щодо вокально-хорового навчання молодших школярів, на нашу думку, є компетентнісний підхід, тісно пов'язаний з попередніми. У сучасній освітній системі згідно з концепцією Нової української школи, компетентнісний підхід є одним з найважливіших, адже він сприяє оновленню освіти, пошуку альтернативного навчання, що спрямоване на досягнення учнями позитивних результатів та застосування їх на практиці.

Вагомість компетентнісного підходу щодо навчання та формування загальних компетентностей молодших школярів у своїх працях розглядала низка науковців, а саме, І. Ґудзик, О. Савченко, Г. Селевко, В. Сєріков, А. Хуторськой та ін.

Згідно з думкою А. Хуторського компетентнісний підхід спрямований на досягнення людиною «ключових, загальнопредметних та предметних компетентностей» у процесі навчання [16, с. 208].

Оскільки у педагогіці часто порівнюють такі поняття як «компетенція» та «компетентність», наведемо трактування науковцем цих понять. Поняття «компетенція» науковець розуміє як «сукупність взаємопов'язаних якостей особистості», а поняття «компетентність» розглядає як володіння людиною відповідними компетенціями, що обумовлені досвідом її діяльності у певній сфері та особистісним ставленням людини до навчальної діяльності [там само, с. 208].

На думку М. Боритко «компетенція» – це певні вимоги до навчання та до тих, хто навчається, а «компетентність» – рівень відповідності даним вимогам та рівень засвоєння компетенцій [4].

Г. Селевко зазначає, що компетентнісний підхід поступово переорієнтує освітню систему, де переважатиме формування навичок, та створення умов для здатності виживання в умовах сучасного суспільного простору [14].

Впровадження компетентнісного підходу щодо вокально-хорового навчання молодших школярів реформує процес накопичення вокально-хорових навичок в уміння творчо застосовувати їх у практичній діяльності, а вокально-хорове навчання з позицій компетентнісного підходу сприяє самореалізації кожного учня у колективі. Отже, впровадження компетентнісного підходу до вокально-хорового навчання молодших школярів дає поштовх до їх творчої самостійної діяльності та самоорганізовує учнів.

Висновки. Таким чином, поєднання вищезазначених підходів, а саме: особистісно-орієнтованого, творчо-діяльнісного та компетентнісного створює теоретико-методичну основу вокально-хорового навчання молодших школярів.

Подальшу роботу ми вбачаємо у визначенні умов формування вокально-хорового навчання молодших школярів на засадах гедоністичного підходу.

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Гоголь Анна. Основні методологічні підходи до вокально-хорового навчання молодших школярів

У статті визначено основні методологічні підходи до вокально-хорового навчання молодших школярів. Для розв'язання поставлених завдань було використано комплекс теоретичних методів: науково-теоретичний аналіз, систематизація та узагальнення. Застосування особистісно-орієнтованого підходу сприяє розвитку особистості, неповторних та індивідуальних рис. Застосування творчо-діяльнісного підходу активізує процес формування учня, здатного до активної творчої діяльності. Використання компетентнісного підходу дає поштовх до творчої самостійної діяльності та самоорганізації молодших школярів. Таким чином, поєднання вищезазначених підходів створює теоретико-методичну основу вокально-хорового навчання молодших школярів.

Ключові слова: вокально-хорове навчання, молодші школярі, особистісноорієнтований підхід, творчо-діяльнісний підхід, компетентнісний підхід.

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The Practical Aspects of Conscious Attitude Formation to Fatherhood in Conditions of Vocational Educational Institutions

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Abstract

The article presents practical aspects of the formation of a conscious attitude towards paternity among students of vocational schools. The author highlights the reasons for depreciation of the moral and spiritual essence of parenthood in the modern Ukrainian society, contradictions of this problem, which, in fact, determine the relevance of scientific research. The examples of the paternity crisis, in particular, are early pregnancy and motherhood among minors, voluntary abandonment of children, phenomenon of deviant motherhood, as well as voluntary refusal of the birth of children ("Child-free"). The author substantiates the necessity of formation of a conscious attitude towards paternity among the students of vocational and technical institutions, whose age development corresponds to the period of early youth. The article presents the structural-functional model of the process of formation of a conscious attitude towards paternity among students of vocational and technical educational institutions, the components of which are the following - semantic (purpose, task, methodological approaches, principles), informative (program of social and pedagogical support for the formation of a conscious attitude towards paternity "The World of Paternity: from Chaos to Harmony"), operational (forms, methods and means of work), effective (criteria for the formation of a conscious attitude to paternity: epistemological, activity, axiological, acmeological). The practical aspects of formation of a conscious attitude towards paternity in the conditions of vocational and technical educational institutions are revealed; the results achieved by the students are determined.

Key words: fatherhood, motherhood, conscious attitude towards fatherhood, students of vocational educational institution.

Актуальність дослідження. Різка зміна пріоритетів, поява нових цінностей та переорієнтація поглядів щодо значимості тих чи інших моральних якостей призводять до занепаду духовної сфери життєдіяльності як суспільства в цілому, так і окремої особистості. Падіння моральних орієнтирів [6], знецінення позитивних духовних відношень між людьми [7; 8] сприяє появі широкого спектру соціальних проблем, які стосуються в першу чергу молодого покоління і, на жаль, дестабілізують його положення у реаліях сучасного світу.

Гострою проблемою українського суспільства наразі ϵ знецінення у молоді морально-духовної сутності батьківства [1; 2; 5] та формальне виконання батьківських, зокрема і материнських, функцій особами юного віку, чим і обумовлена актуальність нашого дослідження. Викликана вона також і наступними протиріччями:

- між вимогою суспільної громадськості щодо повноцінного виконання громадянами батьківських обов'язків та відсутністю можливості реалізувати підготовку підростаючого покоління до усвідомленого батьківства соціальними інститутами;
- між необхідністю формування усвідомленого ставлення до батьківства у студентів професійно-технічних навчальних закладів та відсутністю теоретичної науково обґрунтованої програми, яка слугувала б підґрунтям для впровадження та реалізації у практику інноваційних форм соціально-педагогічної роботи;
- між ідеалістичним культивуванням суспільною громадськістю значимості батьківства і материнства для дівчини та реальною ситуацією сучасності, яка демонструє першочергове значення досягнення успіхів у кар'єрі, матеріального достатку, престижу, тим самим відсуваючи реалізацію материнської ролі на другий план;
- між бажанням студентів професійно-технічних навчальних закладів демонструвати власну дорослість і незалежність та неготовністю нести відповідальність за власну поведінку та вчинки;
- між прагненням молоді жити задля власного задоволення та необхідністю повноцінно виконувати батьківські обов'язки і піклуватися про власну дитину.

Виклад основного матеріалу. Проявом кризи батьківства на сучасному етапі розвитку суспільства виступає рання вагітність та материнство серед неповнолітніх, добровільна відмова від дітей, явище девіантного материнства, а також добровільна відмова від народження дітей («Child-free»).

У зв'язку з цим зростає необхідність розробки, впровадження та реалізації заходів, спрямованих на відродження цінності батьківства, зокрема й материнства, формування у молоді позитивної мотивації до опанування ролі батьків, що закладатиме підґрунтя усвідомленого ставлення до батьківства.

Дослідниця Р. Овчарова, розглядаючи батьківство як багатогранний феномен, виокремлює два рівні його прояву — суб'єктивно-особистісний та надіндивідуальний [4, с. 45]. Зазначені рівні виступають й етапами формування батьківства: 1) початковий, тобто суб'єктивно-особистісний, етап пов'язаний з формуванням когнітивних, емоційних та поведінкових складових батьківства під впливом макро-, мезофакторів та особистісних характеристик людини, закладається ще до початку сімейного життя та появи дитини; 2) етап надіндивідуального рівня розпочинається з моменту народження

дитини; проявляється в інтеграції суб'єктивно-особистісних рівнів подружжя, узгодженні їх уявлень про батьківство, а також безпосередня реалізація ролі батька та матері на практиці. Тому, зважаючи на різноманітні прояви кризи у даній сфері, особливої уваги потребує суб'єктивно-особистісний етап формування батьківства у молоді.

Оскільки для раннього юнацького віку характерними особливостями є проблема самовизначення, становлення у цей період ціннісних переконань та системи світоглядних позицій, то важливим, на нашу думку, постає процес формування усвідомленого ставлення до батьківства саме на даному етапі розвитку особистості. Юність є тим періодом, який забезпечує становлення людини як особистості, «коли юнак, перебуваючи на шляху онтогенетичної ідентифікації уподібнення іншим людям, присвоїв від них соціально значущі властивості особистості, здатність до співпереживання, до активного морального відношення до людей, до самого себе і до природи; здатність до засвоєння конвенційних ролей, норм, правил поведінки в суспільстві» [3, с. 422].

У зв'язку з цим нами було розроблено структурно-функціональну модель процесу формування усвідомленого ставлення до батьківства у студентів професійно-технічних навчальних закладів. Структурними компонентами даної моделі виступають такі:

1. Смисловий: (мета, завдання, методологічні підходи, принципи).

Мета реалізації структурно-функціональної моделі — формування усвідомленого ставлення до батьківства у студентів професійно-технічних навчальних заклалів.

Завдання: 1) створити належні умови для формування у студентів ПТНЗ системи теоретичних знань, практичних умінь та навичок, необхідних для ефективної реалізації батьківської ролі у майбутньому; 2) забезпечити розвиток та формування особистісних якостей, які сприятимуть становленню батьківської зрілості студентів ПТНЗ; 3) створити оптимальні умови для формування позитивної мотивації студентів, яка грунтується на усвідомленні місця батьківства у ієрархії цінностей особистості.

Методологічні підходи – діяльнісний, аксіологічний і системний.

Принципи реалізації структурно-функціональної моделі включають: принципи педагогічного процесу, принципи соціально-педагогічної діяльності.

2. Змістовний (програма соціально-педагогічної підтримки процесу формування усвідомленого ставлення до батьківства у студентів ПТНЗ «Світ батьківства: від хаосу до гармонії»). Програма включає вступний блок; теоретичний блок, результатом реалізації якого є оволодіння студентами відомостями з педагогіки, вікової психології, психології спілкування, психології сім'ї, фізіології, знань щодо особливостей догляду за дитиною з народження, умов гармонійного її розвитку, побудови ефективного спілкування тощо; практичний блок, мета якого у формуванні позитивного відношення до себе як до батька/матері, прийняття відповідальності за благополуччя дитини, єдності поглядів батьків щодо виховання дитини, а також оволодінні та закріпленні практичних умінь та навичок щодо процесу розвитку та виховання дитини; блок рефлексії, спрямований на вираження думок та вражень щодо отриманої інформації; заключний блок.

Розроблена модель покликана забезпечити реалізацію наступних функцій: виховну – формування системи поглядів, переконань та ідеалів особистості, необхідних для формування усвідомленого ставлення до батьківства, а також якостей та рис, які забезпечать успішну реалізації батьківського потенціалу; розвивальну супроводжується своєрідними змінами у розумінні студентами сутності батьківства, його призначення, у якісно новому відношенні до даного феномену; соціалізуючу полягає у засвоєнні та поступовому відтворенні студентами ПТНЗ загальнолюдського досвіду, пов'язаного з багатовіковими традиціями сприймання батьківської ролі та виховання дітей; мотиваційну – спрямована на формування у студентів позитивної мотивації до реалізації батьківства; інформаційну – полягає у збагаченні інтелектуальної сфери студентів теоретично обгрунтованими та практично значущими знаннями стосовно батьківства; практичну – формування у студентів ПТНЗ системи практичних умінь та навичок, які сприятимуть у майбутньому ефективній реалізації батьківства через систему взаємодії з дітьми; комунікативну - полягає у навчанні та реалізації ефективних способів спілкування та взаємодії з найближчим оточенням, в тому числі і майбутніми дітьми.

3. Операційний (форми, методи і засоби роботи).

Форми роботи. Структурно-функціональна модель процесу формування усвідомленого ставлення до батьківства передбачає організацію групової форми роботи, заняття з елементами тренінгу.

Методи роботи. Програма соціально-педагогічної підтримки процесу формування усвідомленого ставлення до батьківства у студентів ПТНЗ передбачає використання елементів арт-терапії та елементів казкотерапії. Методами роботи в рамках даної моделі виступають міні-лекції, інформаційні повідомлення, рольові та інтерактивні ігри, групові дискусії, мозковий штурм.

Засоби роботи – це використання візуальних (мультимедіа-проектор) та друкованих (картки для складання таблиць, роздатковий матеріал) засобів.

4. Результативний (критерії сформованості усвідомленого ставлення до батьківства: гносеологічний — система теоретичних знань; діяльнісний — сформовані уміння і навички, необхідні для ефективної реалізації батьківської ролі; аксіологічний — ціннісне ставлення до батьківства, його місце у ієрархії цінностей особистості; акмеологічний — сформовані особистісні якості студента, які становлять підґрунтя батьківської зрілості).

Програма соціально-педагогічної підтримки процесу формування усвідомленого ставлення до батьківства у студентів професійно-технічних навчальних закладів «Світ батьківства: від хаосу до гармонії» була реалізована в умовах професійно-технічних навчальних закладів, включала 10 сесій, кожна з яких тривала 120 хвилин.

Практична реалізація даної програми серед дівчат, студенток ПТНЗ, сприяла усвідомленню ними сутності батьківства та материнства, ролі батьків у повноцінному вихованні особистості дитини, а також формуванню позитивної мотивації до реалізації ролі матері у майбутньому. У процесі роботи важливим постало формування у студенток особистісних якостей, які становлять підгрунтя батьківської зрілості. Окрім того, розглядалися й питання вагітності як важливого етапу розвитку майбутнього малюка, були запропоновані вправи задля формування умінь гармонійної взаємодії з дитиною на цьому етапі. Беззаперечну цінність мала і зустріч з педіатром, який ознайомив дівчат із психологією новонароджених та особливостями догляду за ними. Окрема сесія була присвячена особливостям віку дитини, метою якої було сприяння

формуванню в учасників системи знань щодо психологічних особливостей дітей на різних вікових етапах, а також умінь щодо ефективної взаємодії з ними. Були розглянуті питання виховання дитини та особливості спілкування з нею, створювалися умови задля формування та засвоєння ефективних шляхів взаємодії з дитиною у майбутньому. Проведення сесії «Емоційний світ дитини» сприяло усвідомленню учасниками цінності емоційного світу дитини, формуванню умінь розпізнавати та адекватно реагувати на дитячі емоції. А проведення завершальної сесії дозволило усвідомити дівчатам власний життєвий шлях та місце материнства у ньому.

У процесі роботи дівчата виявили неабиякий інтерес до даної проблеми. Активна участь, емоційне занурення, різноманітність запитань, які потребували відповідей, свідчили про прагнення учасників зануритися у світ батьківства, зокрема і материнства, і пізнати усі його аспекти.

Висновки. Таким чином, впровадження та реалізація структурно-функціональної моделі процесу формування усвідомленого ставлення до батьківства закладе фундамент у якісній підготовці студентів професійно-технічних навчальних закладів до сімейного життя та усвідомленого ставлення до власного батьківства.

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<u>Translation of the Title, Abstract and References to the Author's Language</u>

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Федюшкіна Катерина. Практичні аспекти процесу формування усвідомленого ставлення до батьківства в умовах професійно-технічних навчальних закладів

У статті висвітлено причини знецінення у сучасному українському суспільстві морально-духовної сутності батьківства, зазначені протиріччя даної проблеми, які визначають актуальність наукового дослідження. Наведені прояви кризи батьківства. Обґрунтовано необхідність формування усвідомленого ставлення до батьківства у молоді. Представлено структурно-функціональну модель процесу формування усвідомленого ставлення до батьківства у студентів професійно-технічних навчальних закладів. Розкрито практичні аспекти даного процесу, а також визначено досягнуті студентами результати.

Ключові слова: батьківство, материнство, усвідомлене ставлення до батьківства, студенти професійно-технічних навчальних закладів.

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The System-Oriented Perspectives of Inculcating Innovative Technologies for Social Work

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Abstract

This article is devoted to the study of system-oriented perspectives of modern social work as a scientific and theoretical basis for the introduction of innovative methods and technologies into the practice of providing social services to different categories of clients. It was determined that the systematic orientation of social work is a key resource that provides a coherent picture of the client's world, about the possibilities and the result of the systematic interaction of social workers with a client and his/her close surrounded, with a group of clients and a community.

Special attention is focused on the peculiarities of the introduction of innovative methods and technologies for social work. The perspective of the ideas of the system methodology during the development and implementation of innovations, the success of which is determined by the system integrity, is emphasized, which greatly enhances opportunities and prospects of social work with certain groups of clients.

Key words: social work, integration of theory and practice, innovative methods, innovative technologies.

Актуальність. Об'єктивна соціальна значущість соціальної роботи як практичної діяльності переконливо доводить необхідність пошуку та виявлення соціально-орієнтованих перспектив, які дозволяють побудувати ефективний механізм надання соціальних послуг клієнтам з урахуванням взаємозв'язку теорії та практики.

Системний підхід як напрям наукової методології представлено досить поширено у соціально-педагогічних дослідженнях та дослідженнях в галузі соціальної роботи (О.В. Безпалько, О.Л. Караман, О.Г. Карпенко, В.А. Поліщук, Т.В. Семігіна, І.І. Мигович, Вепуатіп Chetkov-Yanoov, Malcolm Payne, Hutchinson Gunn Strand, Oltedal Siv та ін.). Зокрема, розкривається специфіка організації на засадах системного підходу соціально-педагогічної роботи з дітьми та учнівською молоддю в територіальній громаді [1], соціально-педагогічної роботи з неповнолітніми засудженими [2], соціальної роботи з людьми похилого віку [4], що зумовлено можливостями інтеграції теорії й практики щодо впровадження інновацій.

Водночас, назріла нагальна потреба у застосуванні системно-орієнтованих перспектив, які б визначали «нову» філософію та методологію вирішення соціальних проблем. У контексті обгрунтування принципових положень системно-орієнтованої практики соціальної роботи повинно відбуватися актуалізація чинників, які б, з одного боку, забезпечували дієвість системної методології для досліджень в галузі соціальної роботи, а з іншого, сприяли ефективному застосуванню системної моделі щодо впровадження інновацій до практичної соціальної роботи з різними категоріями соціально незахищеного населення.

Виклад основного матеріалу. Опанування професію «соціальний працівник» потребує послідовного і грунтовного врахування своєрідності та ідентичності соціальної роботи, закономірностей її функціонування та розвитку, структурованої спрямованості напрямів як певної цілісності соціальної роботи. Об'єктивно забезпечити найбільш повне використання потенціалу соціальної роботи, неможливо також і без правильного використання ідеї системної організації соціальної роботи. Системне орієнтування соціальної роботи може виступити тим ключовим ресурсом, що забезпечує цілісне уявлення про світ клієнта, про можливості та результат системної взаємодії соціальних працівників з клієнтом і його оточенням, групою клієнтів, громадою тощо.

Водночає слід зазначити, що теорія і практика соціальної робота є самостійними елементами цілісної системи соціальної роботи і без розуміння специфічних закономірностей, які характерні їм як єдиній системі, не можна зрозуміти і мати цілісне уявлення про соціальну роботу як суспільне явище, її інституалізацію й професіоналізацію. Саме тому, питання наукового обгрунтування предмету, об'єкту та методів соціальної роботи, її змісту й структури на засадах системного підходу [3] сприяють не тільки розвитку методології соціальної роботи, а й розкривають інтегративний характер системному підходу стосовно впровадження інновацій в практику соціальної роботи [7; 8; 12; 13].

Труднощі, які зустрічаються в процесі розробки, впровадження та поширенні інновацій до сфери надання соціальних послуг, певною мірою, відображають обмеженість вибору теорії цілями практичної діяльності. Натомість відображати співвідношення різних теорій щодо кожного конкретних соціальних випадків у роботі з

клієнтами, групою клієнтів, громадою стане можливим, якщо застосовувати критерії значущості теорії для практики соціальної роботи [13, с. 227]: сфера застосування, викладання (вивчення), успішності та доцільність застосування. Виходячи з означених критеріїв, переваги визначення теорій (системна, психодинамічна, научіння, інтеракціоніська, конфліктів [13]) полягають у тому, що кожна з теорій, по-перше, визначає та пояснює практичну діяльність, а по-друге, є мобільною та гнучкою щодо змін пріоритетних проблем практики соціальної роботи. Таким чином, теорії спираючись на практичний досвід соціальної роботи відповідають соціальним проблемам сьогодення та майбутнього.

Водночас, у сучасних умовах співвідношення чинників становлення та розвитку теорії та практики, що спричинено історичними та соціально-економічними особливостями визначаються практичні моделі соціальної роботи [12]: клінічна соціальна робота, соціальна допомога або соціальне забезпечення, соціальна педагогіка як форма соціальної роботи, соціальний розвиток. Об'єднуючим чинником цих моделей може виступити системна методологія дослідження, оскільки «професійне мислення фахівців соціального сфери, освіта в галузі соціальної роботи відображає дослідження складного характеру тієї чи іншої соціальної роботи в Європі, і в інших країнах світу» [12].

Ідея системної методології об'єднує теорії через усвідомлення загального та особливого в концепціях, які обґрунтовують різні види соціальної роботи. Перспективи системних ідей в теорії та практичній соціальній роботі полягають у можливості «створення ефективної роботи мережі соціальних послуг, врахування наслідків системно-орієнтованих концепцій соціальної роботи для окремої людини як системи управління змінами і конфліктами завдяки розробки ефективних стратегій існуючих моделей практики» [11]. Отже, у межах системного підходу повинен відбуватися розвиток інноваційних методів і технологій соціальної роботи з різними групами клієнтів та їх впровадження в практику соціальної роботи.

З позицій системно-орієнтованих перспектив впровадження інноваційних методів та технологій надають подальшому розвитку теорії та практики соціальної роботи. Так, за переконанням М. Пейна [10, с. 165], якщо соціальна робота спрямована на відтворення соціальних контактів й відносин клієнтів, то орієнтується на досягнення

соціально-значущих цілей (соціальна справедливість, соціальні зміни) поряд з розв'язанням міжособистісних проблем. На практиці реалізація таких перспектив здійснюється на засадах медичної (клінічної) роботи, мультидисциплінарних команд фахівців, що працюють з сім'ями та у мікросоціальному середовищі [10, с. 165], через створення соціальної мережі й систем соціальної підтримки [10, с. 188].

Зрозуміло, що соціальна робота на ідеях системного підходу, повинна характеризуватися цілісним характером соціальних змін в умовах надання комплексу соціальних послуг на рівнях, як індивідуальної та групової роботи, так роботі в громаді. При цьому, ми вважаємо, що важливою особливістю може виступити інтеграція теорії та практики соціальної роботи [9] завдяки науково-теоретичним засадам, механізмам реалізації (технологічним, організаційно-методичним), сукупності умов та чинників, що в цілому й забезпечують ефективність й успішність соціальної роботи. У результаті цього, співвідношення, інтегрування або розмежування теорії та практики соціальної роботи стають змістовною методологічною проблемою.

Висновки. Системна методологія соціальної роботи як сукупність принципів, ознак і засобів організації соціальної роботи на індивідуально-особистісному, груповому рівнях, а також на рівні громади забезпечує комплексне вивчення соціального явища або проблеми, впливу різних чинників на її організацію. Оскільки системна орієнтація теорії соціальної роботи виступає інтеграційним засобом поєднання теорії та практики, то впровадження інновацій соціальної роботи потребує теоретичного обґрунтування вибору інноваційних форм, методів та технологій. Таким чином, враховуючи переваги та обмеження застосування системного підходу в соціальній роботі як методології соціальної роботи, так і практичної соціальної роботи перспективними напрямами подальших наукових пошуків стають розкриття методичних можливостей його застосування у розробці та впровадженні інноваційних методів та технологій у практику надання соціальних послуг різним категоріям клієнтів.

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Савельчук І.Б. Системно-орієнтовані перспективи впровадження інноваційних технологій соціальної роботи.

Ця стаття присвячена дослідженню системно-орієнтованих перспектив сучасної соціальної роботи як науково-теоретичного підґрунтя для впровадження інноваційних методів й технологій до практики надання соціальних послуг різним категоріям клієнтів. Було визначено, що системне орієнтування соціальної роботи виступає тим ключовим ресурсом, який забезпечує цілісне уявлення про світ клієнта, про можливості та результат системної взаємодії соціальних працівників з клієнтом і його близьким оточенням, групою клієнтів, громадою. Особлива увага сконцентрована на особливостях впровадження інноваційних методів й технологій соціальної роботи. Наголошено на перспективності ідей системної методології при розробці та впровадженні інновацій, успішність яких визначається системною цілісністю, а це значно розширює можливості та перспективи соціальної роботи з певними групами клієнтів.

Ключові слова: Системна соціальна робота, інтеграція теорії та практики соціальної роботи, інноваційні методи технології соціальної роботи.

Савельчук И.Б. Системно-ориентированные перспективы внедрения инновационных технологий социальной работы.

Эта статья посвящена исследованию системно-ориентированных перспектив современной социальной работы как научно-теоретического основания для внедрения инновационных методов и технологий в практику предоставления социальных услуг различным категориям клиентов. Было определено, что системное ориентирование социальной работы выступает тем ключевым ресурсом, который обеспечивает целостное представление о мире клиента, о возможностях и результате системного взаимодействия социальных работников с клиентом и его близким окружением, группой клиентов, обществом. Особое внимание сконцентрировано на особенностях внедрения инновационных методов и технологий социальной работы. Отмечено перспективность идей системной методологии при разработке и внедрении инноваций, успешность которых определяется системной целостностью, а это значительно расширяет возможности и перспективы социальной работы с определенными группами клиентов.

Ключевые слова. Системная социальная работа, интеграция теории и практики, инновационные методы и технологии социальной работы.

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Book presentation:

Olga Perova. "Art of Prywinko"

Olga "Prywinko" Perova has been professionally engaged in digital painting since 2011. Her portfolio includes numerous artworks created using a computer and a tablet: original characters, fan art and humorous comics. Prywinko's artworks can be found in most major online galleries.

"The main theme of my work is the expressive image of a woman, passionate and sensual, frank and even provocative. I draw famous characters from contemporary pop culture, heroines of films, comics and video games, as well as my own characters. I try to endow them with those traits that, it would seem, cannot coexist together - seductiveness and chastity. Such an amazing symbiosis allows me to realize in my artworks female characters, who are aware of their own charm and dignity, harmonious and truthful. They are not ashamed of the beauty and exquisite perfection of their body, they are not afraid to appear subtlely fragile, while remaining strong and confident.

I create all my works in a graphic editor. It is fair to say that the use of modern technologies has facilitated the implementation of some tasks and significantly accelerated the process of drawing. However, do not think that the computer does all the work for the artist. Digital painting has no significant differences from traditional painting. Only the instruments have changed, but the laws of composition and color reproduction remain the same.

This collection presents a part of my works created in the period 2015-2019. During this time I drew a few hundred characters. One can trace how my style has changed and developed from timid attempts to portray a portrait to detailed works with careful drawing of muscles, sophisticated clothing or armor. I continue to improve my skills and spend a lot of time communicating with the audience. The community of digital painting fans supports me, gives impetus to my creativity and helps me to move in the right direction".

The book of Olga Perova is accessible at

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