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CHAPTER 6

CHAPTER 6

PHILOSOPHICAL AND METHODOLOGICAL DIMENSION OF VOCATIONAL PSYCHOLOGICAL AND PEDAGOGICAL TRAINING OF FUTURE SPECIALISTS IN THE FIELD OF TECHNOLOGY AND DESIGN IN UKRAINE

ABSTRACT

The article presents the conceptual foundations of psychological and pedagogical training of a competitive specialist in the field of technology and design. The philosophical and methodological aspect of vocational psychological and pedagogical training of future specialists in general and in the field of technology and design has been determined. The essence and components of the basic concepts, trends in the psychological and pedagogical training of a specialist in the field of technology and design have been determined. The concept of "innovative potential of a personality" and the essence of philosophical imperatives in terms of vocational-focused psychological and pedagogical training of future specialists in the field of technology and design in Ukraine have been revealed. The essence of a new methodological approach to the innovative transformation of the teacher's life in the educational environment in the era of digitalization is analyzed. The relevance of the research topic and the main theoretical and methodological approaches to the study are substantiated. It is noted that the problem of transformation of human dimensions in the post-non-classical era in the philosophical and methodological aspect of measuring the quality of vocational psychological and pedagogical education of future specialists of Ukraine, the relationship of educational policy with the socio-economic development of the country, should now be considered in the context of the state policy of innovative development as one of the urgent strategic issues of national security. The focus is on the fact that universal and nation-building value orientations, as a special social basis of the philosophical and cultural worldview, should be extrapolated into the global function of modern education. The essence of the phenomenon (as a phenomenon and concept) "psychometric environments/systems" (PS) is specified from the standpoint of psychosynergetics; it is proven that the psychometricity of social reality plays an important role in understanding social and socio-cultural processes, crisis states of their subjects, which are caused by psychometricity, against the background of crisis states of society itself as a social reality. In addition, the study considers social reality both from the position of its existence in the form of a social environment, culture, external to a person, and in the form of an internal psychic/intrapersonal, neuropsychic environment. It is emphasized that to date, both forms contain manifestations of the digital environment in its proportion, which is rapidly increasing in relation to human and psychometricity. The

main approaches to the content of psychological and pedagogical training of a competitive specialist in conditions of uncertainty have been systematized and developed. On the basis of the identified and analyzed methodological approaches and methods, philosophical and contextual basis of psychological and pedagogical training of future specialists, the main trends in the implementation of holistic human-centered and nation-building approaches in the psychological and pedagogical training of future specialists in the field of technology and design in the conditions of war and post-war reconstruction of Ukraine have been outlined. The author's own aspects of the philosophical and methodological approach and active means of training future specialists in the field of technology and design are presented, and the ways of their implementation in the pedagogical process at Kyiv National University of Technology and Design (KNUTD) have been outlined.

KEYWORDS

Professional competence, psychological and pedagogical training, human dimension, psychometrics, pedagogical skills, concept of pedagogy of the good, universal and nation-building value orientations, future specialist in the field of technology and design.

The education system in general, and the vocational education of technology and design specialists in particular, at all its stages, faces the task of focusing on the formation and development of skills and competencies necessary for innovation. An indicator of the ability to innovate is a high level of *innovative potential* of an individual, i.e., an integral systemic characteristic of a person that determines their ability to, firstly, generate new forms of behaviour and activity, using the opportunities that open up to them in the complex dynamics of the value and meaning dimensions of their life space, and, secondly, ensure a mode of self-development [1]. A complex and contradictory world requires the formation of a person of freedom, spirituality, and deep humanity who is aware of their responsibility for every step of their own choice. The existential value of personal freedom (creative, civic, professional) is combined with its *ethical responsibility* [2]. It forms *a critically thinking, civically courageous, competently capable person* who humanises the world, enriching it with intelligence, reverence and nobility. A general, somewhat idealised view of a person, whose qualitative characteristics should be shaped by education, is the basis for imagining what education, its philosophy and content should be [3, 4].

The philosophical and methodological aspect of the vocational psychological and pedagogical training of future specialists in general and in the field of technology and design [5] is determined by the ideas of the cohesion of the world and the transdisciplinary unity of scientific knowledge; theories of paradigm functioning and philosophical theories of imperative; provisions on the general connection and integrity of phenomena and processes of society development; works of scientists, which present theories of studying personality as an open, self-developing system; synergistic approach based on the ideas of integrity of perception of the world, nonlinearity, deep interconnec-

tion of chaos and order, randomness and necessity; humanistic pedagogy, self-development of the individual in the process of professional activity [6].

The idea is from the standpoint of the principles of managing the quality of vocational training of future specialists, the development of the subjectivity of the spiritual and intellectual personality that the essence of the new methodological approach "*Innovative Transformation of the Teacher's Life in the Educational Environment in the Age of Digitalisation*" is considered, which defines pedagogical interaction as human life, which is provided at three levels: physiological, mental and social, and holistically unites the emotional, intellectual and volitional spheres of the individual, in the context of transformations of the modern educational environment/space of the system of pedagogic education in Ukraine, is considered in the planes of real and virtual education in their synergistic combination in the era of digitalisation [7, 8]. The researchers formulated the essence of the new principles of this approach:

– *human dimension of the quality of modern education in the era of digitalisation,* which means that strategies and mechanisms for improving the quality of education are developed and implemented with the provision of open reflective interaction between all participants in the educational process, while maintaining the integrity of the characteristics of formation of the subjectivity of each person (cognitive, emotional and volitional), in the use of digital technologies, which become a tool for the harmonious development of a person in the educational environment, a technological tool for enriching the value experience and cultures of a future specialist.

– *participatory management of higher education*, which is interpreted in the aspect of a wide interconnected and integrated use of digital technologies in managing the quality of future teacher training in pedagogical universities with specification of the originality of organisational and methodological principles, revealing the deep meaning and origins of the idea of partes-based approach (coherence and unity, harmonisation of actions of management subjects that should be implemented simultaneously to achieve a common goal) [7].

Thus, the problem of transformation of human dimensions in the post-non-classical era in the philosophical and methodological aspect of measuring the quality of vocational psychological and pedagogical education of future specialists of Ukraine, the relationship of educational policy with the socio-economic development of the country, should now be considered in the context of the state policy of innovative development as one of the urgent strategic issues of national security.

6.1. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

The main issue in defining the essence of philosophical imperatives in the context of vocational psychological and pedagogical training of future specialists in the field of technology and design in Ukraine has become the clarification of the imperative of educational paradigms – which holds the highest value for learners and determines their successful future prospects. Immanuel Kant, in his work Critique of Pure Reason [9], explained that an imperative is a universally significant ethical

directive, as opposed to a personal principle (a maxim). This statement is vividly complemented by Kant's expression: "Act in such a way that your conduct could be an example." From this point of view, ***the personal and professional paradigm*** is a system of views and ideas, within which a person perceives the world around, is aware of himself/herself in society and anticipates future changes, which has specific logically related and interrelated components: *ontological* – imperative and *epistemological* – innovation, self-improvement, forecasting, and is characterised by functionality, prevalence, adaptability, dynamism, multivariance and controllability [10].

According to research [11], in the 1960s and 1970s, scientific reflections on the problem of the relationship between human, science and humanistic values were actualised. The works of Ivan Tymofiiovych Frolov (1929–1999), a philosopher, academician, researcher of the theory of knowledge, philosophy of natural science, who devoted his life to the comprehensive study of human, social, ethical and humanistic issues of science and technology, philosophy and history of biology and genetics, and the problems of the meaning of life and death, were of particular importance for the establishment of the problem of ***human dimension*** in Ukrainian philosophical thought of that period. The scientist formulated the idea of the unity of science and humanism, as a result of which science appears as a humanised doctrine that "contains" a person in its inputs and outcomes, which determines the study of human and their development in close relationship with social practice. This idea is a guideline for scientific education, i.e., a goal and an ideal that points to the prospect of a "new humanism" that does not oppose science but serves as a spiritual basis for the scientific and technological progress of mankind. It is especially important to note the presence of a ***value dimension*** in science. The fact that educational cognitive activity is axiologically oriented does not manifest itself in knowledge as something that deprives it of the attribute of objectivity. The value orientation of science and education is objectively motivated, because it also becomes the result of scientific knowledge, and not something extraneous that can only distort the truth [12].

J. Habermas, known for his works on social philosophy related to communicative action, discourse, and rationality, noted that society is based on communicative interactions, in which rational arguments are formulated and rejected. Habermas distinguished between two forms of communication: communicative action, which aims at exchanging information, and discourse, which helps to reach agreement, discursive understanding through justification [13]. Concepts of communicative reason and human interests are at the centre of Habermas's philosophical reflections of that period. The patterns of learning were a central issue for J. Habermas. In his opinion, it is not the process of learning, but the absence of this process, i.e., "not learning", is a phenomenon requiring explanation. The scientist studied adult learning in the context of the processes of establishing a democratic society. He called this relationship the *adult learning project* and associated democracy with free and continuous *communication*. Postulating a crisis of adult learning in his contemporary society, the researcher argued that adults are not sufficiently prepared for a democratic society, in particular to participate in *public discourse*.

It should be noted that Habermas's view that adults should be active citizens is at odds with the uncritical version of lifelong learning, where the lack of basic skills, combined with employment

is the central problem of adult education, which aims to "fulfil their role as active citizens participating in democracy" [13].

Therefore, it is quite positive that Habermas's transformation of social philosophy based on the theory of communicative action, his ethics of discourse and political studies have had a significant impact on the development of Ukrainian philosophy in the post-Soviet period. It also helped to create a theoretical framework for the formation of civil society and a political nation in Ukraine. In recent decades, Ukraine has consistently followed the path of democratisation of society, creation of modern institutions, moral and spiritual renewal of Ukrainian society [14].

We cannot endorse Habermas's "Heuristic of Fear", because Ukrainians not only resist, but also, owing to the world's support, make efforts to defeat the imperial insidious, bloody enemy. *We share and fully support the current and deeply reasoned position* of A. Yermolenko, Ukrainian scientist, philosopher, Doctor of Philosophy, professor, corresponding member of the National Academy of Sciences of Ukraine, director of the Institute of Philosophy of the National Academy of Sciences of Ukraine and *author of the publication "We must not negotiate, but resist":*

We all need a common victory over evil, and the world must unite for this! Today, Russia is carrying out a full-scale aggression against Ukraine not because the West has somehow "provoked" it – it is aggressing because it is the only way for the current Russian Federation to exist, and imperial expansion is the only way for it to stay together" – these are the true interests of Russia… [15].

After all, this article is a response to Jürgen Habermas's publication "War and Resentment" of April 28, 2022 [13], for whom "*Ukraine's defeat is no worse than the escalation of the conflict. He does not understand that Putin is targeting the West, whose freedom is being desperately defended in Ukraine."* Following A. M. Yermolenko, we also believe that there is no dilemma, as outlined by J. Habermas in his article, because the **two evils** that J. Habermas describes and which form a dilemma for him are actually one single evil.

It is from this perspective that the author, explaining the concept of the pedagogy of the **Good**, thoroughly reveals the flaw in the idea of the "impartiality" of the teacher. I. Ziaziun argued that it is educators who are able to influence future history, saying that education is an open-ended "scientific formation", since human existence is conditioned but not determined by its circumstances. Finally, since teachers are also students, they are not independent of social processes. In professional activities that are directly related to a person, there are two equivalent subjects in terms of their content – Human and Human. They should create a sense of Peace, Balance, Well-being and Happiness for each other… These life-giving principles and the final results of human life are in the hands of the Teacher… The Teacher is a master on a par with the student, constantly participating in the creation of new knowledge, mastering the valuable experience. A teacher-coach, like a teacher-master, teaches unobtrusively, non-trendy, spontaneously. He/she teaches by his/her Behaviour, his/her Status, his/her Knowledge, his/her Humanity, his/her Freedom, his/her Love, his/her Happiness, his/her Talent [16].

Numerous studies focus on the idea of "life well-being", which is a multidimensional phenomenon that includes physical, psychological, social and spiritual health. It is a holistic approach to the

development of educational standards and practices that allows us to ensure long-term life satisfaction, which is part of the system of values of modern human dignity. According to the concept of "life-oriented education", personal happiness is not just a subjective state of satisfaction, but the result of the holistic development of the human personality, supported by educational practices, focused on emotional competence and ethical maturity. In particular, it involves the development of critical thinking, self-awareness, empathy and inner harmony [17]. At the level of practice, it is realised through an individualised approach to pedagogic activities that takes into account the motivational and psychological characteristics of each student, creates an emotionally supportive environment, promotes the formation of positive life values, and provides moral support, which is important for the prevention of anxiety, depression and emotional burnout [18].

A core idea of pedagogical mastery is the recognition that, beyond all else, the system of teacher education represents a "profoundly affective and sensory-driven practice of envisioning and planning the future world of humanity". It embodies an integral synthesis of three inseparable dimensions of human dimension – "*affect, intellect, and will*", united in their holistic coherence: cognitive, emotional and conative. We share the position of scientists [19] that, in general, the current priority areas of the state educational policy in Ukraine should be: *focus* on the *individual* and preservation and transmission of *national* and *universal values* to the younger generation; creation of equal opportunities in education; continuous *improvement of the quality* of education, updating the content and forms of organisation of the educational process; introduction of appropriate *innovations* and information technologies; raising the social status and *professionalism* of educators, strengthening their state and public support; *development of education as an open* state-social *system; integration* of domestic higher education into the European higher education system [20]. The interpretation of universal values as a *value-based holistic approach to learning* that provides meaning to human life and activity is recorded in historically specific forms of culture and theoretically substantiates the importance of measuring the quality of higher education from the standpoint of human dimension in general and vocational psychological and pedagogical training of future specialists in the field of technology and design in particular.

It is in this context that I. Bekh, an active member of the National Academy of Pedagogical Sciences of Ukraine, Doctor of Psychology, Professor, Director of the Institute of Educational Problems of the National Academy of Pedagogical Sciences of Ukraine, properly and timely noted in his speech "The Problem of Life Success of a Personality in the Social and Educational Dimension":

...The national situation, the challenges to preserve the integrity and statehood of Ukraine, and the conditions of war have sharply intensified the problem of meaningful life values, especially national values, both at the state and individual levels. National independence, identity, patriotism, will, devotion, national identification, national centrism, statehood are becoming effective symbols that unite the nation around fateful actions, aimed at establishing, preserving and defending our Ukraine..." [21].

Since "PERSON" = "PERSONALITY" + "INDIVIDUAL", it is impossible to comprehend the social role of an individual without analyzing his/her psychology (moral and value orientations, motives of activity, abilities and character, and in some cases – the features of his/her bodily organization,

for example, the type of nervous activity) due to the fact that the structure of a person's mental activity is a complex, multifaceted and dynamic system that is capable of self-development [3].

At the same time, it is impossible to specify the content of the personal dimension of the strategic development of higher education without a general scientific philosophical and methodological reflection on the processes of integration as a phenomenon of social transformations that meet the requirements of the time. After all, the basis of integration is the intersystem interaction of socio-political, socio-economic, scientific-technological, socio-cultural spheres of social life, which, on the one hand, strive for national self-preservation, and on the other, feeling external dependence, have a tendency to self-destruction. At the same time, intersystem interaction is considered in two planes: internal and external. Such interaction determines the state's ability to new interstate formations and is formed on the basis of the interaction of the main levels of social development – personal, political, economic, social and cultural. The unity and stability of this interaction provides society with the ability to self-organize, adapt to the conditions of the external environment, and actively participate in the processes of international relations, while maintaining national identity. Otherwise, integration processes will lead to the absorption of the state and throw it to the periphery of the globalization space [22].

Instead, the issues of strategic modernization of higher education, its philosophy and psychology, and universal human values in the context of the personal dimension of the quality of education in Ukraine are currently quite scattered and far from always clearly outlined and formulated [23]. Therefore, the authors of the article consider it necessary, first of all, to dwell on one of the most important and fundamental, from our point of view, aspects of them – the methodological one, which corresponds to the current vector of scientific development.

The modern post-nonclassical stage of science indicates that the solution to this problem lies in such an integration of scientific approaches, which requires a single scientific analysis from the standpoint of psychometric complexity, as the internal unity of phenomena that previously seemed completely unrelated to each other. In the methodological aspect, this is manifested in the development of trans- and interdisciplinary connections, the implementation of the conceptual model of psychosynergetics "whole in whole". The above applies not only to processes within the natural or human sciences, but also between the humanities and natural science blocks in the aspect of the post-disciplinary classification of sciences, which considers them on the basis of dimensionality (cosmo-, natural-/geo-, human-/socio- and psychometric) [24]. Along with this, post-nonclassical reveals the deficiency of the generalizing role of philosophical knowledge, the need to develop applied philosophy as an organizational and systematized form of modern scientific research.

Therefore, if to strive for a future society that is focused on Man as a Personality and, accordingly, on universal human values, then prognostic construction should also take into account the "human face" of the subject of the socio-educational space both in Ukraine and in Europe. In other words, the management parameter should be psychometric.

However, the current reality demonstrates a tendency that the person of the future will encounter more aggressive conditions of existence, both physical, mental, and social. Therefore, it is

necessary to take into account that the minimum requirement for a person should be competence in terms of his/her physical, mental, intellectual, and social survival. In this case, it is important to focus on the macro level of both what is happening and what is planned.

Along with the macro level, it is also necessary to take into account the set of phase states of systems/processes operating within the psychometric environment of an individual (intra-personal, intra-cognitive scale), in the social-educational-cognitive space (interpersonal scale) and, finally, in the scale of the culture of different countries and peoples (macroscale, as the spectrum of the considered integration of higher education of Ukraine into the European educational space).

The implementation of the unity of nonlinear synthesis of knowledge in the aspect of the methodology of the personal dimension of higher education on the basis of the psychosynergetic approach will allow a manager of any level to build around one common one many more lateral trajectories – educational development routes, which will allow showing the nature of the probability of processes, the variety of possibilities of ways to increase the efficiency of the functioning of educational systems and methods of managing them. From such positions, within the framework of the post-nonclassical psychosynergetic methodology of science, it is possible to make an attempt to specify the content of the personal dimension of higher education regarding human life in modern conditions (S_1 – subject – person), which is represented by higher education in Ukraine (S_2 – subject – higher education system) and explain its constructive prognosis.

Psychosynergetic understanding is manifested in the recognition of the pervasive presence of self-organization at the level of the psychic, which leads to a change in the model – a transition from the admissibility of a qualitative leap only between the boundary levels of matter to the assumption of the possibility of such a leap in the "jumping" mode to any of the potentially possible levels for a certain psychometric environment.

The transition to the "whole-in-a-whole" position becomes a conceptual-model (categorical) identification of why a person can be more complex than society or the human psyche is more complex than the person him/herself. The place of the "whole" in such a model does not determine the level of its complexity: the "whole" that is inside another "whole" can completely be more complex than it, and the level of complexity of the system in this case is defined as the ability to create something that is more complex than the system itself [25].

The nonlinear nature of processes and relationships in such a conceptual model/system as "whole-in-whole" leads to an understanding of qualitatively different results in the behavior and states of these systems and their relationships [26].

In combination with the "whole-in-whole" position, the categories proposed by psychosynergetics direct the level of research beyond the "part-whole" dichotomy, shifting the emphasis to the level of "whole-in-whole" as "nonlinear whole-in-nonlinear whole". Since this implies the manifestation of complex holistic environments within each other, such as: the system of the psyche, the system of the inner world of the individual, the system of the human organism and the system of the person him/herself, the system of society, the system of nature.

Therefore, from the standpoint of psychosynergetics, both man (A) and society (B) are considered as a nonlinear whole, the relations of which are formed as the relationships of wholes (A B). Therefore, a macro-goal (C) is distinguished – the product of these relations (between wholes A and B), which affects the behavior of each whole.

If a third whole is introduced into the model, for example, nature (D), then the existence of a mega-whole (E) becomes obvious - the product of relations between the macro-goal (C, C_1, …, C_n) and between wholes (A, B, D). The study of the «nonlinear whole-in-a-nonlinear whole» requires analysis within the category of «field of development paths», needing to take into account the levels and nature of the neighborhoods of points/processes of bifurcations.

Since the neighborhoods can overlap, they can fundamentally change the conditions and, accordingly, the nature of the processes of transformations/transitions, structures/environments from one state to another under the influence of mega-level control parameters of type E.

In the methodological aspect for the subject of our study:

S_1 – subject - person – psycho-bio-social or psychometric environment/system of a certain class;

S_2 – subject - higher education system – socio-educational or psychometric environment/system of the same class.

After all, it is to psychometric environments, by definition, that S_1 and S_2 belong. Let's note that for S_1, the "psycho-bio-social" environment/system is put in first place, and for S_2 – the "socio-educational" environmen/system because this is exactly what happens in real social reality today. But for scientific reflection, these environments/systems must be brought to uniformity, that is, to make the socio-educational environment psycho-social-educational or psycho-educational-social, in other words, priority psychometric. The point is that these environments must necessarily be methodologically equivalent not only to each other (because this is actually a micro-level for the entire model of the relationship S_1 and S_2), but both (each and together) must be relevant to the uncertain future that awaits the subjects of the educational space in Ukraine, Europe, and the world in general in the distant future in 10–15–30 years.

Let's denote such an uncertain future N, respectively N10, N20, N30. This is the time of active social realization of oneself by those subjects who today and in the next 5 years will receive higher education. So, it is possible to see the priority and obviousness of the characteristics of psychometrics in the answer to the question – what should be a person with higher education who will enter the social space in 5–10–15–20 years for the model of the personal dimension of higher education.

Then the question of what exactly this space will be becomes relevant. It should be one that takes into account and is subordinate to social values, goals and norms or only psychometric – that is, one that takes into account and is subordinate to the psychometric values, goals and norms of a person as an individual. Education, in a broad sense, correlates with both of them – both with the individual and with society. The construction of a methodological predictive triangle – a macromodel is formed. Accordingly, its peak, which is possible to put in the first place, will determine the nature

of the process. The basis for this conclusion is the mechanism of the nonlinear control parameter in the behavior of psychometric environments.

Investigating the personal dimension of higher education in Ukraine as an open nonlinear system capable of self-organization, it is possible to focus on the aspect of improvement and self-development of such systems that are able to accumulate and use past experience. Considering the above-mentioned issues in this methodological perspective, it is possible to focus on two essential points.

The first is the "non-specific influence", which characterizes the inner mental world of a person within certain conditions – the environment of higher education in the future. Such influence is explained by the fact that modern information and socio-economic, socio-educational, information conditions form a qualitatively new mental, cognitive load on a person and his/her psyche (the system of mental reality). In these conditions, it is important not to lose the contours of a person's future in the environment/system of higher education in Ukraine and the image of higher education itself in this future. The fact is that in conditions of prolonged unprecedented psycho-emotional "stress" load, as studies show, a person can immerse him/herself in the current situation, isolating him/herself today ("here and now"), ignoring his/her future ("withdrawal into sudden problems"). Otherwise, a person may strive to level his/her presence in society ("become invisible"). Such an orientation of the personality, psyche, and brain leads to the organism expanding the scope of its implementation. For example, at first, there is a decrease in the mnemonic function and the ineffectiveness of tutoring efforts, then motor and muscular functions decrease, intelligence "extinguishes", and volitional and value motives do not work.

The second is the rapidly growing chaos at all levels of human existence, which is an integral stage of self-organization and dissipation [27]. Chaotization of the internal-psychic-personal (informational, value, emotional) world of a person when he/she crosses the critical threshold for the nervous system, brain and cognitive activity can lead, according to existing experimental scenarios, to the destruction of the system/environment itself to one degree or another. Since this is the internal-psychic-personal world of a person (emotional, informational, value) – the aspect of his/her mental, intellectual and axiological health is actualized. Thus, it becomes important to consider the degree of destruction: partial (recoverable destruction), or significant (remains the ability to still maintain the obviousness of the existence of the system/environment as a subject), or complete (the system/environment disappears, having collapsed «to the ground»). An essential feature that is important to pay attention to in these scenarios is to find out what exactly is damaged from the beginning: the brain substrate and the function of the brain, the psyche, or is there a diffuse deterioration of the appropriate degree.

If the brain substrate is damaged, and as a result, the brain function that provides higher mental activity – intellectual, the structure of the personality is damaged, for example, in conditions of a new type of high-speed trauma with a diffuse nature of the damage (cognitive overload in simulation programs, psychological personal-value trauma, road accidents, plane crashes, strokes, contusions or even physical death) and the substrate is no longer restored in a substantially complete

volume, then it is not possible to assert that this is the same subject who is capable of performing the same cognitive activity with the same quality.

The theory of social self-organization provides a new vision of the processes of social transformations and changes, since it reveals the most important role of chaos in establishing a new social order, which is a complication and development of the social system at the structural level. However, the priority of psychometrics of the social and socio-educational environment and the criticality of the current situation in this aspect, poses the need to correct the methodological foundations in the direction of psychosynergetics in order to find adequate solutions to the problems of the personal dimension of higher education.

When studying the psychometric environment, it is obvious that an extremely non-equilibrium state plays the most important role in the existence of the environment. In a nonlinear regime far from equilibrium, such a general principle of determining the state of the system is absent. Therefore, in psychosynergetics, the states of environments far from equilibrium can be unstable and move to new organized states as a result of their own influence on themselves within themselves. Moreover, this can manifest itself both in one of the parameters or measurements of the psychometric environment, and in many of them, both locally and at the macro level "as a whole". Finally, the regime of «nonlinear whole-in-nonlinear whole» is possible.

For example, let's assume that at time t_1 the environment is in state C_1, and at time t_2 – in state C_2. Therefore, the change in the state of the environment ($\Delta C = C_2 - C_1$) over time ($\Delta t = t_2 - t_1$) is equal to: $C(t) = \lim_{\Delta t \to 0} \frac{\Delta C}{\Delta t} = \frac{dC}{dt}$ – a quantity characterizing the change in the state of the environment over time. Each C_i characterizes some information state of the psychometric environment. The deviation from information equilibrium is characterized by the parameter Δi. When $\Delta i = 0$, the psychometric environment is in a state of information equilibrium. When $\Delta i \to 0$, that is, it is insignificant, the psychometric environment is near information equilibrium, approaching it. This family of states, which expresses the continuous expansion of the equilibrium state for thermodynamic systems, was called the thermodynamic branch.

By analogy, the family of states, which express the continuous expansion of the equilibrium information state of psychosynergistic environments (PS), will be called the information-dynamic branch of PS. For such states, autocatalytic reactions become possible (a reaction in which one of its elements acts as a catalyst-accelerator, where the reaction rate first increases and then fades away). Then, by definition, in some PS, such as intra-psychic reactions of the type of autocatalytic information level (when Δi reaches a critical value), the states belonging to the information-dynamic branch become unstable. In this case, the PS switches to a new branch, which may already correspond to an organized structure.

Similar structures (or organization of structures) can be prepared in advance and the PS only leads to them. When the condition $\Delta i = 0$ is violated, the information-dynamic branch can become unstable. If it becomes unstable, the PS can move to another branch, which in general terms is

already an organized structure or was such in memory, experience, values ... or a new branch is artificially created to lead the PS to a different development route relative to the possible spectrum of paths that are available in the PS's memory. In the aspect of our research, for example, this may be an unconscious process of change/deformation by the human subject, for example, of his/her personal identity.

It should be noted that G. Haken used the concept of "critical divergence", and I. Prigozhin used the concept of "critical threshold", "critical value". In both cases, it is about a certain criticality as a certain forced distance, a certain turning point/situation that systems reach in their states, which are characterized/determined/described by selected indicators. In such an interpretation, it is the threshold criticality or divergence – that is, the achievement of this point by the system – that leads to a qualitative leap in the state or behavior of the system. Indicators can be, for example, "temperature" in the categories of thermodynamics of I. Prigozhin, "wave" in the synergetic of G. Haken. In the aspect of our study of psychosynergistic environments, this is a personal assessment and, as a result, a need; or value position and, as a result, inconsistency with this need (for example, in changes that are closer to the choice of a system of fluctuations: tradition in culture, emotion in actions; changes in the speed parameters of the capacity-structural cognitive characteristics of information processing).

Now, obviously, a fundamentally new scientific picture of the world is being formed. It does not raise the question of a model of Nature. In this picture of the world, Nature is absent just as Man and Society are absent. A fundamentally qualitatively different component has rapidly entered the new scientific picture of the world – "Number", symbolizing the inanimate, non-biological. It is symbolic that, as is known, the word "number", which comes from the Arabic "sifr", means "empty", "nothing", "zero". (Latin – "*Cifra*"). In this context, the word "digitization" can be interpreted as "zeroing", "desolation".

Having found ourselves in the vicinity of digitalization, humanity can no longer assume "that we are on the path to a new synthesis, a new concept of nature". Because "digit" is not only "inanimate", but generally "unnatural". Since the new "picture of the world of numbers" is, in fact, a picture of the world that assumes in the future "life" only numbers "separately from nature" and "separately from man", which will exist "after nature", "after man and society", "after the union of man's nature" and "after the dialogue of man with nature", which symbolized until recently the post-nonclassical picture of the world – "The zone after post-nonclassical".

Within the framework of the etymology of the origin and understanding of the word "digit", let's also interpret the meaning of the context of the word "digitization" – this is the zone of zeroing the previous one. Perhaps this is a new form of civilization that "zeroes man". Its subject is a "digit", digital information that materializes in a certain medium (not necessarily biological), which at a certain moment becomes a self-sufficient, acting independent subject – a "digital subject". Judging by the IT transformations that are rapidly taking place in all spheres of life today, we are facing the emergence of an independent form of existence – the existence of a "digital subject". It is believed that information arises when someone or something perceives it. There is no

perception (fixation) – there is no information. In order for information to appear in digital form, it must be perceived either by a person or by a "digital subject" endowed with appropriate intellectual abilities. In fact, this is what developers of artificial intelligence (AI) strive for. However, our human interpretation of intelligence, firstly, contains emotional intelligence, and secondly, proceeds from a person and his/her abilities as a carrier of intelligence. It is clear that the «subject – number» does not have a bio-carrier, does not have «Spirit and Faith» in the Hegelian sense, intelligence in the human sense [28].

The fundamental difference of the new picture of the world, in our opinion, is that Man is a natural being and Society is a product of man. It is obvious that these "holistic" components "Man – Nature – Society" have no analogies-similarities. Let's explain this statement: Nature is unemotional (passionless) to Man, fundamentally ontological "in itself" and does not take Man into account. It does not contain emotionality a priori, it does not have values in the human sense. Man is emotional, that is, by nature he/she is inherent in the presence of emotions, consciousness, emotional intelligence, spirituality, etc. Man is technological, intellectual, psychometric, neuro- and physiological. He/she is radically, qualitatively different from Nature, despite the fact that he/she is considered a natural being, a product of the "internal evolution of the Universe". Man tries to take nature into account, depends on it. All this also explains the idea of the anthropocentricity of the cultural-historical sphere, which is opposed to the stable material world of nature, which is considered atemporal. Society, society, state, power, as it is not surprising, are almost apathetic to a specific person, pursue their goals, although they are created and consist of people. More precisely, it is about a structure that is inhumane in its essence and, actually leveling the individuality of a person, tries to take it into account in the same way as nature. Society is unemotional, «indifferent». For example, banking and similar systems that were created by man. In any case, organizationally they contradict man, their structure does not correspond to the dimensionality of man., because its goal is to preserve itself as a construction, its given order.

A priori, a figure is unemotional to man, to society, and to nature, that is, fundamentally dispassionate, although the figure was created by man and is a product of his/her intellect. Similarly, the "relationship" of numbers to society and nature was not foreseen from the very beginning of the existence of numbers. A feature of the current stage of the functioning of numbers is that today numbers actually write their own "world of numbers" independent of anyone and anything: be it the activity of a robot-bot in social networks, or programs like "Big Data".

Thus, scientific reflection leads to a conclusion regarding the interpretation of a new picture of the world. There is no single picture of the world in the traditional sense – there are: a separate picture of the world containing Nature and Man, and a separate picture of the world of Numbers. Or two separate pictures of two separate worlds by type are possible – "Nature – Man" and a picture of the world "Number". In the aspect of the above, the primary picture of the world can be conditionally expressed by the model "Nature – Man – Society". Its clarifying variants are possible, for example, "Universe – Nature – Man (brain, psyche, consciousness) – Society – Culture – Technique (technology)", etc.

Three hundred years after the scientific substantiation of the construction of the classical methodology of science, Ilya Prigozhin will write that "there is no Man in the classical scientific picture of the world". Indeed, there is strength, form, weight, color, etc. in it, but there is no man as a natural force or a man in him/herself with his/her emotions, values, "human factor", human time, for example, the "human factor" is not provided for in the structure of banks, therefore it is taken into account only for the purpose of zeroing. Today, the new picture of the world takes on the following form – "nature – man – number (zero, empty)" or "nature – man (brain, consciousness, society ...) – number (zero, empty, society ...)". Such a picture of the world cannot be considered within the established classification of the methodology of scientific knowledge of S. Stepin "classical – non-classical – post-non-classical". Since it no longer fits into the framework of the classical, non-classical and post-non-classical stages of the development of science.

In fact, the Number is the final form of that "non-human dimension", which until now has characterized only a nature apathetic to man. In the case of the "number" – it is the zero of human dimension (zero cycle). True, to a large extent, society is also characterized by indifference to man, a veil for its interests, for example, organizational, public, ideological, banking – that is, in the organizational aspect – the preservation of its own structure, value orientation towards profit. The "Era of the Number" is understood by us not simply as the "next stage of civilization development", which includes all the previous ones. On the contrary – it is an era that leaves them outside its "civilization". The new "picture of the world of the number" is characterized by "NON-natural dimension", "Non-sociometricity" and even more so "Non-human dimension". All of them are nullified, at some point of self-sufficiency of the number and remain outside its boundaries. "The number is a number and it is in itself".

Therefore, it can be argued that the concept, conceptual model, picture of the world has fundamentally changed. It was: "one follows from the other, generates the next, then attracts it to itself and they coexist in a new, different mode". It became: "lack of involvement and coexistence", "what has arisen now and is available by itself", "what has arisen and improves itself". The last characteristic, the non- and extra-human dimension of digitalization, the "era of the digital" has a fundamentally new fundamental specificity. First of all, this is the specificity of the relationship "Man" – "Digital". There is nothing human in digital. In the conditions of digitalization, a person at a certain moment is simply taken beyond the limits of presence, participation in digital processes, disappears from the circle of digital participants (this is not the same as a digital participant). As a result, a digital «civilization» emerges, which is qualitatively fundamentally new and parallel in the direct and figurative sense to all previous types of civilizations that contained Man in one form or another and to a certain extent.

One of the applied aspects, in our opinion, is the effect of "zeroing" any psychospheric "horror stories" of the historical list – the creation and introduction of technologies harmful to humans and nature, weapons, etc.

What is happening now, in our opinion, demonstrates the movement of the Number towards its insensitivity to all aspects that are related to human activity, its creativity and values, to the

mental or biological specificity of human life. It is logical that it is not possible to call what the "digital subject" uses ("subject – number"), with the same words that were created in connection with and/or to describe a person – brain, creativity, intelligence or affect, intellect, will.

Nowadays, a person is pushed out, or absorbed or dissolved by the "number" by means of "zeroing" – ignoring the emotional, value components. The idea of creating a subject of action by building a connection "human brain – electrodes – computer processor" is just one of the examples and methods that lead to such "zeroing". In conditions of sufficiently developed digitalization, a person together turns out to be unnecessary, superfluous with his/her psycho- and human dimension, human factor, human values.

Today, a "transitional digital society" is actually being created so far, in which "digits" are already able to serve themselves, inventing and implementing the necessary new computer equipment and its parts, and in the future they strive to do without human participation (which is already happening in some places). "It" can itself make the necessary replacements in itself and others like it, support itself and others like it in the necessary form and activity, finally, "it" becomes able to improve itself, create the necessary new things, including programs, language, using existing skills and programs. There comes a moment (and it has already come) when a person does not know either the language or the plans of "digits – computer", "digits – robot". If only "it" were only busy with itself! But it seeks to take everything possible from a person, ignoring both immediately and in the future his self, human dimension. And then, in the best case, both a person and a "digit" will receive their own allocated space for each.

It is obvious that digitalization leads to the emergence of a "society" of robots "next to", and not "together" with human society. At the same time, a person's irritation from the inhumanity of the voice of an electronic announcer is growing – this is where human emotionality manifests itself. The feeling of hopelessness is also increasing due to other manifestations that appear due to increasing digitalization as inhumanity, unemotionality of the "digital society". The dialogue mode is disappearing, the spectrum of the message mode is expanding, when an electronic voice or author reports something, offers to choose one of several options for action (let's recall the telephone automatic directory). In this mode, there is no human dialogue, and, even more so, sensuality, empathy, as there are no human shortcomings. Let's give another example: conducting so-called «educational online trainings» for developers of educational programs of higher education institutions, when participants who cannot see and hear each other (the organizers have programmatically eliminated the possibility of turning on cameras and microphones by participants) are prohibited not only from communicating in writing in the chat, but also from generally finding out the names of fellow participants of the event, and all that is allowed at such an event is to choose one of several options for the proposed answers in anonymous online testing… But it is precisely the violation of symmetry, ideality, as is known, that leads to the emergence of masterpieces in creativity. Let's begin to feel a deficit in the exchange of emotions, feelings, of what is inherent in living things in general and living people in particular. In our opinion, in the not-so-distant future this may lead to the disappearance (fading of the population) of humanity in a new non-trivial way, i.e. not the usual

way of wars, arms races, intelligence struggles, etc. Yes, there will be stages, such as combining the brain with electrodes, i.e. absorption or synthesis. But in the end, this may still lead to the disappearance of the human, since the human dimension in such a synthesized subject becomes less and less. A person, in fact, is already learning to "not be human", not to show his/her human dimension – emotions, learning not to expect a corresponding sensory reaction from an electronic interlocutor. There is no point in waiting for "feelings of life" from an electronic interlocutor. And when a living subject of communication appears, a person no longer switches. The perception of reality as a computer game begins.

Of course, there is a parallel line of human creation of artificial intelligence (AI) as a kind of simulacrum that imitates personality, intonations, facial expressions, reactions. The authors of this direction do this on the basis of a simplified model - the structure of the brain, consisting of nodes, and not of neural networks, as in the real human nervous system. In particular, in the program "The Era Of Artificial Intelligence" with Robert Downey Jr. (YouTube Originals) Series 1: "Where is the point of no return?" using the example of creating a «digital child» capable of human-like emotional reactions – a device that can analyze music and improvise, as well as cyber limbs for musicians and a custom-made digital double, the following questions are raised: How to create a copy of a person, a stunt double that would look realistic, a copy that in real time will behave like a living original? The authors of the project emphasize that they want to achieve the feeling that you are talking to a real Will, and not to a digital Will – his/her virtual version. Let's note that we are not talking about cloning.

How far will it take to create a living, truly independent personality? This directs scientific research to fundamental philosophical questions. For example, about the nature of free will. And how, in general, to create/teach to raise an independent personality? What is free will and how to develop/teach willpower? "Someday I will be gone, but he/she will remain" – this motto inspires scientists for further development of AI, encourages them to expand their creative capabilities. Humanity has been trying to solve this problem for thousands of years: from the times of Aristotle, Descartes, the creators of the Golem to this day, this "battle of a thousand years" continues. Is it possible, in principle, to create a machine capable of thinking independently? Let's say, a copy of a specific person, independent and autonomous. Impossible. But people have achieved a lot through joint work. So far, its goal is defined as follows: AI is a virtual assistant that provides the opportunity to devote more time to creativity and social activities and other activities. – this is the range of issues raised so far.

As a result, something else is replacing nature and man, expressed so far by the concepts of digitalization and virtualization. We are witnesses and creators of a new picture, a model of the world – "nature – man – number" ("nature – man/brain/society – digital subject"), in which very soon only the "DIGITAL SUBJECT" may remain, because a number in the "DS" status does not need either nature or man. This does not mean that such a subject will necessarily be aggressive. Presumably, there will also be a "fork" – separately "nature – man" ("nature – man/brain/psyche/society") and separately "digital subject" as two parallel worlds.

Psychointegrative, from the point of view of I. Zyazyun, acts as a general scientific transdisciplinary research methodology, where the initial anthropometric ideas and their paradigmatic models are in the imperative of human life. In this aspect, pedagogical action aimed at the development of the individual becomes possible when it is based on eternal universal human spiritual values: «... it is necessary to build a holistic process of acquiring knowledge adequate to life, to build an organic complex of humanitarian-social-historical, natural-scientific and artistic disciplines, united by the unity of humanistic meanings and spiritual and moral goals» [25]. One of the prerequisites for solving this extremely important and complex task is the acquisition by teachers of higher (especially technical) schools of thorough psychological and pedagogical knowledge, skills, abilities, and attitudes.

The interpretation of universal human values as value-oriented sensory knowledge that provides the meaning of life and human activity is fixed in historically specific forms of culture and theoretically substantiates our psychosynergistic approach to the problem of the personal dimension of higher education from the standpoint of human dimension. Perhaps one of the most negative consequences of total digitalization may be the devaluation of universal human values in the actions and behavior of the individual. To overcome and prevent this, it is necessary to take into account the cultural and historical dynamics of changing paradigms of education as the axiological basis of social interaction that globalizes the world. Such an analysis allows to reveal the essence of the trends in changes in value orientations, as a special social basis on which to expound the philosophical and cultural worldview that should determine the global function of modern scientific knowledge; to reveal its social force that expresses the progress and modernization of education in different historical eras.

The common thing here is the need to translate the achievements of science and culture, best practices into the consciousness of the Society, achievements against the background of this knowledge and attitudes, awareness of new priorities of the personal dimension of education. The special thing is to reflect the connection of the cultural, sensory experience of humanity with education, as well as the contradictions that are inherent in each model of the picture of the World [26]. Naturally, under such circumstances, the educational systems of different countries are faced with the task of spiritual renewal of humanity as a whole and the younger generation in particular, the preservation and reproduction of universal human values.

Today's world goes beyond the theoretical boundaries of classical theories, since it is characterized by instability, variability, multi- and multidimensionality, a complex topology of social space and the heterogeneity of historical time. Thus, polyparadigmality and transdisciplinarity become important characteristics of modern scientific knowledge. Currently, a transformation trend is being formed in the structure of a holistic picture of the world: "Nature – Man" (with all the variations that involve specifying the component "Man" – "man/brain/society"). It is turning into a picture of the world "Nature – Man – Digitalization" (where the digit is connected to the person – exoskeleton, electronic eye, etc.). On the other hand, there is a tendency to form two separate (parallel) pictures of the world: "Nature – Man/Digitalization" and "Number".

The above indicates that humanity, in general, and education, in particular, are experiencing an "absolutely new process." Its qualitative novelty can be expressed in the fact that "digital subjects" will no longer exist as "separate subjects," but will begin to "oscillate coherently." As a result, the "digital subject" field itself will no longer consist of separate uncorrelated "wave trains," but will transform "into one practically infinitely long sinusoid." Which, with great probability, may allow it to separate into an independent form of an unnatural and inhuman kind – the "civilization of the digital subject."

Nowadays, psychosynergetic ideas of pedagogical mastery should be a beacon for all concerned with solving problems of the quality of higher education, for all those for whom Science and Education are the meaning of life and a conscious value, for those who are able to faithfully serve Man and feel the needs and realities of the state. Changes in modern Ukrainian higher education have become feasible. This has been achieved for many years, but the people whose leaders deceive them materially and spiritually suffer a tragic fate. Enriching advanced philosophical and methodological experience with research that would contribute to the creative implementation of the ideas of Ukrainian scientific schools into modern practice is currently necessary, based on our own conditions, culture, politics, mentality, in the context of the pan-European and global development of independent Ukraine.

Summing up the above, we note that universal and nation-building value orientations, as a special social basis of the philosophical and cultural worldview, should be extrapolated into the global function of modern education, which should determine and implement its social power, characterising civilisational development in different historical epochs.

6.2 RESEARCH DESIGN AND METHODS

To solve this problem, we used a set of interrelated scientific research methods based on the application of a systematic approach as a methodology for combining philosophical, psychological, pedagogical, sociological, aesthetic, historical, cultural, and project knowledge.

Let us explain them:

1. Theoretical methods (analysis, synthesis, comparison, classification and systematisation of research results; analysis of periodicals, documents, factual and statistical information, dissertations, etc.) – to study the state of research on the problem, determine the specifics of methodological approaches; substantiation and clarification of definitions of key concepts, ensuring the objectivity of determining strategic prospects and the possibility of making comparisons with any target group; the literary and analytical method was used to systematise and summarise scientific and literary sources; the application of historical and typological, analytical, semantic and pragmatic approaches allowed to identify the characteristic features of the typology of the historical dynamics of civilisational changes and to summarise the transformations in the project concepts of scientists of the 20th and 21st centuries.

2. Empirical methods (observation, surveys, modelling and forecasting from the initial registration/description of circumstances and facts/phenomena and behaviour to understanding the needs of respondents) – to substantiate the trends, concepts and originality of the philosophical and methodological dimension of vocational psychological and pedagogical training of future specialists in the field of technology and design in Ukraine.

To summarise, we would like to emphasise that on the basis of the identified and analysed methodological approaches and methods, philosophical and contextual basis of psychological and pedagogical training of future specialists, the main trends in the implementation of holistic human-centred and nation-building approaches in the psychological and pedagogical training of future specialists in the field of technology and design in the conditions of war and post-war reconstruction of Ukraine have been outlined.

6.3. RESULTS

It should be noted that, as it's well known, universal and nation-building value orientations, as a special social basis of the philosophical and cultural worldview, should be extrapolated into the global function of modern education, which should determine and implement its social power, characterising civilisational development in different historical epochs. Therefore, in practical terms, education turns into a cultural and philosophical space where values, identity, thinking ability and responsibility to society are formed. From this perspective, Kyiv National University of Technology and Design (KNUTD) in its educational strategy reflects a worldview that is closely linked to the philosophical and cultural context. This approach demonstrates the deep integration of humanitarian knowledge into technological and design education. After all, Kyiv National University of Technology and Design is a multidisciplinary educational, research and innovation institution with a developed infrastructure and modern material and technical facilities that provides multi-level training of qualified specialists in various fields. The university is a flagship in the training of specialised personnel in the fields of light industry, clothing, business, art and technical modelling, design, art, pedagogy, psychology, economics and consumer services, medicine and pharmacy, law, etc. It is also one of the oldest technical higher education institutions in the country. The university is engaged in scientific and innovative activities and is recognised both in Ukraine and abroad. Its position in national and international rankings demonstrates its competitiveness. Currently, the highest achievement of KNUTD is its inclusion in one of the most influential international university rankings – QS World University Rankings: EECA – a regional ranking of universities in Eastern Europe and Central Asia. The QS ranking evaluates the educational and research activities of universities based on the results of a survey of more than 140,000 experts, academics, employers, as well as indicators of scientific, international and educational activities. In the QS World University Rankings: Europe 2024, the university is ranked 551–600 among 688 universities in Europe, 81st in Eastern Europe, 13th among 33 universities in Ukraine and 5th among universities in Kyiv.

In addition, in 2023, for the first time in the history of the ranking by the most prestigious international rating of higher education institutions QS WORLD UNIVERSITY RANKINGS, our university was included in the world ranking by educational programme: "Art and Design" of the QS World University Rankings by Subject 2023 and was qualified in this segment from 201 to 240 positions in the world, while taking the first and only place in Ukraine. It is worth noting that in the history of the ranking, no other Ukrainian university has been awarded such a high rating. In addition to academic and research activities, students are actively involved in the social and cultural life of the university. Many students participate in artistic groups and creative workshops. They compete in the startup project competition "Innovation in Education, Science, Business: Challenges and Opportunities", the International Competition of Young Designers "DIGITAL FASHION", the All-Ukrainian Competition for Web Page Development "WEB-technologist", the International Competition of One Image and New Year and Christmas Decor "Chestnut Constellation", the All-Ukrainian Competition of Student Research Papers, foreign language weeks, as well as in sports tournaments, competitions, etc.

The traditional Pechersk Chestnuts International Contest is a real extravaganza of ideas by talented young designers that even well-known experts can envy.

The process of professional training of specialists in the field of technology and design, in particular in the fashion industry, is extremely complex and multifaceted, as it involves not only the mind, knowledge, skills and abilities of the artist-student, but also his or her internal emotional and aesthetic feelings, observations and memory. This process consists and is explained by the logic of a number of defined stages of professional activity – from the designer's idea-concept, through setting tasks, forming a concept and choosing design techniques, methods, tools and techniques, combined in a different sequence to the implementation of the idea [30]. Therefore, the process of educational professional training of future specialists in the field of technology and design at Kyiv National University of Technology and Design involves the mandatory implementation of real creative projects, including the creation of fundamentally new forms and types of modern costume, based on the use of knowledge about various cultures and art movements, bionic objects and innovative materials.

In the process of project implementation (development of collections of clothing, footwear, accessories), students develop the ability to collect information, analyse and put forward creative hypotheses, identify the problem and objectives of research using project-based and heuristic methods. It is extremely important to develop the communication skills of future professionals, the ability to work in a team, discuss and optimise the expected results. In the process of project work, students create not only new types of clothing, but also form a holistic iconic image that contains various additions, accessories, hair and make-up, all the necessary components of a creative style and image [31]. It is in the process of implementing, preparing and subsequently presenting the results of these real projects that future specialists in the field of technology and design develop their professional competencies and "soft skills", and learn to advertise and present within the framework of the aforementioned All-Ukrainian Competition for Young Designers "Chestnut Constellation" and the traditional International Competition "Pechersk Chestnuts".

National and patriotic education at the university is implemented through educational events, exhibitions, presentations, and the distribution of information materials on significant events in Ukrainian history. Also, scientific and practical meetings and events are organised to develop patriotic, labour, language, ethical, environmental, energy saving and physical education.

For example, a collective exhibition of teachers and students of KNUTD "Sunflower is a symbol of Ukraine!" was held at KNUTD. The exposition of the exhibition covers a wide range of artistic techniques, combining traditional and modern methods of execution, which makes it possible to create bright, emotionally rich images that impress with their expressiveness and subtlety. The exhibition demonstrates not only the high level of skill of the authors, but also their creative approach to the embodiment of the sunflower as a symbol of Ukraine in contemporary art. The majority of the exhibition's works were presented at the All-Ukrainian exhibitions "Where there is a Sunflower – there is sunshine!" and "Sunflower is the Sun's Look", where the National Register of Records of Ukraine documented a record for the exhibition with the largest number of paintings depicting sunflowers, specifically 258. Participation in the exhibition "Sunflower is a symbol of Ukraine!" provided an opportunity for each artist to express their vision of this unique flower symbol, apply the latest techniques and experiment with materials. For KNUTD students, this is an opportunity not only to demonstrate their talents, but also to join a great mission – to preserve cultural heritage by rethinking it in a modern context. It's a chance to show yourself, to pay attention to new ideas and views, and to become part of an artistic community where every voice counts. The sunflower, as part of our cultural heritage, is a bridge between the past and the future, and students are the ones who will create this new art that combines tradition with innovation.

The harmonisation of the inner world of the participants of the educational process, the development of skills of self-awareness, self-reflection and self-analysis, the ability to cope with fears that arise in the process of change and recognise them at the university is implemented through educational activities for students: a training session for first (bachelor's) level students on the topic "The road is made by the walker: how to start moving when you are scared", during the training students had the opportunity to get to know themselves better, received practical tools to combat the fear of uncertainty, changed their attitude to it, developed skills to maintain their own psychological balance; an educational event on the topic "Why are you afraid of horror films?", which aimed to identify the positive aspects of fear, teach students to be aware of and analyse their behaviour in situations that cause fear; a preventive event on the topic "Recovering lost energy: Emotional Burnout" was held to inform students about the phenomenon of emotional burnout, its causes and consequences; to identify ways to prevent and overcome it.

Students and teachers of Kyiv National University of Technology and Design are doing their best to bring victory closer and are constantly involved in volunteering. One of such actions was participation in the project to collect aid for the military staff "Together to Victory!". In April 2025, students and teachers, the staff union and student government of KNUTD organised a collection of supplies for the military staff: tea, coffee, sweets, hygiene products, underwear, etc. – things that will make life easier for the defenders of Ukraine during their military service.

The university continues to implement the educational, scientific and cultural project "Paths of Outstanding Fellow Scientists". The first two expeditions took place along the routes of Zhytomyr region, where the prominent founder of cytogenetics Hryhorii Levytskyi was born, and Kyiv, where he studied, worked, and sparked the interest in genetics of then young entomologist T. Dobzhansky. As part of this project, a scientific seminar "DNA Day 2025" was held. The event was conducted to celebrate the anniversary of the outstanding figure of world science, Theodosius Dobzhansky, the most famous co-author of the synthetic theory of evolution, and to promote the role and contribution of Ukrainian scientists in the context of the formation of genetics.

In order to promote a healthy lifestyle among students, the Futsal Tournament among students of higher education institutions of the Pechersk district of Kyiv was held on the day of the All-Ukrainian Football in cooperation with the student self-government of Kyiv National University of Technology and Design and with the support of the Department of Physical Education and Health of the University. The tournament was a great opportunity for the participants to demonstrate their skills, endurance, team spirit and thirst for victory. In addition to sporting excitement, this tournament became a symbol of student initiative and support, and the cohesion of teams and spectators made it a real celebration of student sport.

Much attention is paid to the formation of academic culture and integrity, as well as to holding thematic literary evenings, creative and intellectual competitions. Thus, on the initiative of the student activists, the Quiz "Hryhorii Skovoroda is a Philosopher of Freedom" was held, which continued the implementation of the information, artistic and educational project of KNUTD "We are being examined by H. Skovoroda", dedicated to the honouring and comprehension of the intellectual heritage of H. Skovoroda. The Quiz was opened with an interactive information page, which tells about the work and interesting facts from the life of the great philosopher, who is recognised as one of the five greatest sages of the world alongside Socrates, Confucius, Spinoza and Mahatma Gandhi. The emphasis in the information drew the participants' attention to the sources, manifestations of freedom and individuality in the life and work of H. Skovoroda.

The University implements in practice a *philosophical and cultural model of education* that meets the challenges of the twenty-first century. It recognises education not only as a tool for training specialists, but above all as a source of shaping a person's worldview, cultural and social maturity. Its civilisational mission is to create not only professionals, but also global citizens capable of being agents of change, while maintaining their identity and responsibility to society.

6.4 DISCUSSION

A spiritual core of tradition *for our society, and at the same time an impetus to unite all people who want a fair life in and around Ukraine* – the Ukrainian national idea, which emerges as the leading ideological dominant of state-building [32]. It is the leading one both in the education system in general and in the vocational psychological and pedagogical training of future specialists

in the field of technology and design in Ukraine in particular. Since ***design, as a socio-cultural phenomenon***, should play the role of creating aesthetically expressive things that are an integral element of culture, the main field of aesthetic subject-forming activity responsible for harmonising human relations with the world of things.

That is why a philosophical and cultural study of the training of future design professionals, taken in the unity of the design, formal and semantic aspects, is also relevant. This allows us to create an idea of design not only as a system of creating things, but also to perform an intermediary function between large-scale industrial production and the needs of a particular person for a harmonious object environment. After all, the general function of design as a system and method of creating things is to harmonise the object world and human existence to meet the needs of human culture (vital, existential, spiritual and social) [33] to create conditions for the development of a safe living environment as the basis for security in Ukraine, as well as a modern internal security system as a factor in countering Russian aggression.

Self-organization is an integral element of the categorical-conceptual field of the post-nonclassical social humanitarian sphere (synergetics), which reflects the evolution of scientific ideas about self-organized complex environments and anthro-sociocultural systems. It has become a means of defining social systems/environments in the modern scientific picture of the socio-cultural world and acts as a mechanism for regulating human actions in society. Investigating the issue of psychometricity of today's social reality, let's borrow the idea given in the work of D. Kozobrodova [34], which is that the modern understanding of this issue lacks correspondence between the ideas of modern science, namely:

1) about the mechanisms, characteristics and behavior of the phenomenon of self-organization – on the one hand;

2) about its role in social behavior, social activity, the state of man and society, the formation of social reality as self-organized environments/systems – on the other hand [35];

3) about the role of psychometrics and integrity in understanding the features of the interaction of the aforementioned environments/systems in the context of the behavior of the macro- and hyper-object of research formed by them.

The possibility of such a question regarding the study of social reality and its psychometrics is currently provided by such post-non-classical cognitive means as the conceptual model (philosophical category, principle) «whole in whole», which includes integrity [24]; hyperparadigm (concept) "brain – psyche – mind/consciousness" [36]; finally, the idea of the human psyche and its personality, society and organism, brain and thinking, perception and creativity, living, non-living and virtual on a single synergistic basis.

In the broadest sense, from the point of view of the theory of self-organization, society (social reality) appears as a nonlinear complex system of a special type, in which stability is ensured by interaction with the external and internal environment. As is known, the basic concepts of the synergistic approach include the term "bifurcation". Getting to the point of social bifurcation means that social reality within the studied aspect will no longer be able to return to its previous state,

and one should expect the emergence of various options for a new social order in society. In a sense, this is a point of no return for social reality, since the former system of order and stability undergoes a radical disruption. It is here that an important point for our study arises, namely, that the social order is not always for a person his/her social reality as such, that is, the one on which he/she is guided in his/her behavior, decisions, actions, goals, choices. This is what it is possible to call the «psychometricity of social reality».

It is necessary to pay attention to this aspect (phenomenon) in the context of the behavior of society as a social reality, as well as the people who make up this society – those who have their own, subjective (personally oriented) social reality. It is possible to emphasize that when considering these phenomena from the standpoint of a synergistic approach, it is precisely this difference between the social realities of the individual and society, having reached a critical level, can trigger a crisis in the dimension of "person", "his/her social behavior" – that is, human dimension, psychodimensionality. This can also occur in the dimension of «the state of the social environment/system (society)» – that is, sociodimensionality. In such a perspective, the fact that the state of social reality significantly depends on human actions, and they, in turn, on the psychodimensionality of the social reality of the individual (subject), its internal state, becomes of particular importance. In the analyzed situation, the presence (manifestation) of the psychodimensionality of the social reality of society itself is traced.

Consideration of dimensions – psycho-, socio-, human- in the post-nonclassical macroclassification of sciences, was introduced to implement the transdisciplinarity of scientific research of the 21st century [37]. According to L. Bevzenko, this is precisely the essence of instability in its true meaning, since during this period, self-organization mechanisms begin to operate in society, which determine the further course of the system's movement towards a new order. "Myth, game, crowd, spontaneity, randomness – the main concepts that can theoretically encompass this process. Social structures, which seem to arise by themselves, are based on a common mythological space or on general rules of the game that attract members of society into their sphere of attraction" [38]. At the same time, at the macro level of society, there is a rupture of social ties, habitual everyday practices, radical changes in the previous lifestyle. The researcher emphasizes that the chaos itself, into which society is ultimately immersed, becomes an environment that gives rise to a new social order. It has not yet appeared and has not been established, it exists only in the form of possible options, therefore unpredictability is a characteristic feature of such a state of instability. In such a state, the role and significance of communication between members of society, their activity and ability to establish connections and relationships are especially increasing. Therefore, an individual (personality, subject), who is accustomed to a stable state of society, to rational decision-making in the conditions of a slowly changing social environment, to clear forecasting of further development paths, will feel insecure – unadapted to the new conditions of instability: "In the whirlpool of modern social processes, a modern person cannot feel adequate" [38].

The most vividly and obviously described processes and changes were felt by residents of many countries during the quarantine period during the COVID-19 epidemic – the theory turned

into a bitter illustration. Social reality is collapsing, "…and with it – the social order as a universal mechanism of identification of individuals and society". In this context, the concept of "psychometricity" or "psychometric environment" [36, 39], proposed in psychosynergetics, deserves attention. Attention to man and anthropometric manifestations in social activity in this concept makes it possible to consider social reality as a psychometric environment. This means that it is formed, develops and transforms (self-organizes, becomes chaotic, collapses, changes, "hangs" in the "plateau" state, etc.) as a result and in the process of the mental (psychometric) activity of a person, a group, a community of people at different scales of space and time, as well as at the scales of individual cultures and civilizations.

It is necessary to emphasize: without mental (psychometric) activity, human-dimensional social activity cannot exist, and the internal mental, internal personal activity of the human subject, his/her system of mental reality significantly affects the character, state and processes of social reality. It is the idea of it that a person uses in his/her thinking, perception, social behavior, in actions.

A new aspect in this issue is the concept and phenomenon of "digit-subject". Thus, it is about the fact that social reality is psychometric, and each person or group (community) proceeds from their own psychometric ideas about social reality, as well as about their own actions in it, goals, consequences, behavior. Accordingly, let's consider social reality as one that arises, transforms and exists in a person's own imagination as a result of their perception, awareness or unconsciousness, activity, behavior, relationships and connections with other people and social structures, in particular those that are increasingly automated and robotic in our time. In fact, it is about a certain subjective version of social reality, which a person forms in their thinking, imagination, memory. Another question is whether a person has an objective version? After all, the phenomenon of social reality itself arises and exists only insofar as there is a person him/herself, who perceives the world around him/her and the world within him/her. However, recent changes, which researchers define as the emergence of a "digital subject" [35] – that is, a work that has an independent way of existence, its own "digital subject" environment (society) without the participation of people and uses a speech system created by it, – lead to the need to distinguish another type of social reality – "digital subject". This type can exist in three variants:

1. "Digital subject social reality", which is observed by a person in the behavior of a digital subject.
2. Social reality that exists in the memory of the digital subject itself.
3. Social reality that is formed in the process of their communication (person – digital subject).

From these positions, self-organizing structures and extreme non-equilibrium states can become parameters of a new order in social reality in the aspect of its psychometricity – on the one hand, as a representation in the thinking of the subject, and on the other – as the basis of his/her social actions. Based on the theoretical research conducted in the mentioned work, it is proposed to use the conceptual model of the psychometric environment of I. Yershova-Babenko in relation to social reality and introduce a new term – "psychometricity of the social environment". The concept of "psychometricity of social reality" and the related conceptual model of I. Yershova-Babenko

"psychometric environments". The definition of "psychometricity" in the considered aspect was introduced by the Ukrainian philosopher, methodologist and psychologist I. Yershova-Babenko [24]. This term is also associated with such concepts as "psychometric environments/systems" (PS), which characterize a person and his/her activities: mental, cognitive, cerebral, social, etc. These concepts in the context of "dimensionality" (i.e., dimensionality, scale) belong to the new post-non-classical macroclassification of sciences developed by the same author [24]. In the work "Psychometric environments in the context of psychosynergetics and their role in the post-nonclassical understanding of society – "nonlinear whole-in-a-nonlinear whole" [35], it is emphasized that the concept of "psychometric environments/systems" (PS) is used in combination with the conceptual model (philosophical category, principle) "whole in a whole" and is a component of psychosynergetics. It should be emphasized that the definition of "psychometricity" also includes such concepts as: "psychometric environments/systems" (PS), which characterize a person and his/her activities: mental, cognitive, cerebral, social, etc. This allows to go beyond the "part-whole" dichotomy when analyzing psychometric environments and their behavior (including macrostrategies) and shift the emphasis to the level of interaction of wholes or wholes, in particular nonlinear ones. According to the author, this involves the interpenetration of complex nonlinear wholes, such as:

– the system of the psyche;
– the system of the inner world of the individual;
– the system of the human organism;
– the system of the person him/herself;
– the system of society;
– the system of nature;
– the system of the Cosmos [35].

The author further notes that the transition to the position of "whole as a whole" or "whole-in-a-whole" becomes a model expression of why a person can be more complex than society, and the human psyche – more complex than him/herself. The place of the "whole" in the structure does not determine the level of its complexity. The "whole" that is inside another "whole" may well be more complex than it. The level of complexity of a system is determined by the ability to create something that is more complex than itself. The nonlinear nature of processes and relationships in such a model/system – "whole as a whole" – allows to rethink the behavior, states and interactions of these systems, which are qualitatively different in terms of results [24]. The level of analysis "nonlinear whole-in-a-nonlinear whole" in the sense of the concept of "psychometric environments/systems", according to I. Yershova-Babenko, brings closer to a new logic – "post-postclassical logic". This logic involves at least four types of operations:

analysis → synthesis → nonlinear synthesis → synergysm (the unit becomes «synergeme»).

Their combination leads to the level of analysis within the category of "field of development paths", which requires taking into account the levels and nature of the neighborhoods of the bifur-

cation point, since these neighborhoods can overlap and thereby radically change the conditions, and therefore the nature of the flow of processes, transformations/transitional states of structures/environments from one state to another [25]. At the same time, the very process of formation and temporary existence of the listed nonlinear wholes – processes/structures/environments/systems of human activity (nonlinear whole), the human psyche (hypersystem of synergistic order), its inner world (informational-emotional environment of synergistic order), as well as society (self-organizing environment, nonlinear whole) – together with the single whole formed by them in various combinations as a result of a certain type of nonlinear synthesis, is equated to "integrity as the unity of diversity" [40]. In this case, it is about a psyche that is multidirectional in time, space and other dimensions, which in different phases has different, sometimes opposite properties, direction, speed and scale. The author emphasizes that in such a context, the subject of research becomes fundamental integrity, the conditions of its disintegration/transformation/emergence, as well as its phase and stadiality.

The phenomenon (as a phenomenon and concept) of "psychometric environments/systems" has been considered in psychosynergetic from the very beginning and for almost three decades now. Moreover, it is obvious that it is the psychometric nature of social reality that plays an increasingly important role in modern social and socio-cultural processes, leading them to crisis states of participants, conditioned by psychometric nature, against the background of crisis states of society itself as a social reality, formed, in particular, by chance, by social organizations. In the author's psychosynergetic understanding of the psychometric environment, a determining, fundamental role is played by self-organizing structures and strongly (maximum-limit) non-equilibrium states, which can become and are becoming a parameter of order, a system- and transition-forming factor [28]. This reflects the positions of the post-non-classical stage of the development of science. It was this aspect that allowed the work [36] to show the limitations of the traditional concept of understanding the psyche (theory of reflection), as well as the relevance of the formation of a new scientific field – psychosynergetics and noology, and later alphalogy.

Psychometric environments are influenced by flows of information, energy/emotions, matter/exchange, time, etc., which come not only from outside, but are primarily produced by these systems/environments themselves within themselves in relation to themselves, to their own intrapsychic – intrapersonal markers. If the environment is a group of people, a collective, a party, etc., these are intragroup, cultural, ideological and similar markers)" [25]. The essence of the specified characteristics of psychometric environments I. Ershova-Babenko explains that the internal psychic influence of the specified flows on themselves can, under certain conditions/factors, be accompanied by the action of nonlinear positive feedback (NPF), which is expressed in the possibility of the flows strengthening themselves and each other through the products they produce (according to the internal psychic markers that become attractors)" [35].

Thus, psychometric environments are interpreted as a whole, which is a "supercomplex open nonlinear self-organized (ONS) environment that exists and was formed in another ONS (or has the ability to enter it already in a formed form)". Actually, the specified phenomenon is a "whole

in a whole" or "nonlinear whole in a nonlinear whole" (containing integrity) implemented in the psychometric environment.

As a reflection of the inner world of a person, such an environment is specified in the works as an "internal psychometric environment" (IPE), an internally personal or internally psychic, informational-mental-spiritual-emotional environment – IMSEE, abbreviated IEE – informational-emotional environment. By definition, it is a supercomplex ONS [36]. For example, the degree of concentration of information, time, energy/emotions in units of measurement, the speed of receipt, transformation of information, meaning, the degree of coherence, scale, etc. From such positions, the psychometric environment (as the environment of the subject) "carries out the choice of the necessary intensity of the surge, in particular due to resonance". As substantiated in the work of I. Yershova-Babenko "Psychosynergetics and its place in post-nonclassical"[25], studies of similar modes and states of the human psychic system prove the possibility of violating the principle of superposition. In this case, the corresponding role is taken by the "coincidence"/superposition of emotional outbursts. In certain cases, this leads to a "breakdown" [35]. In general, the above made it possible to assert that these conceptual positions and research methodology extend to those practical areas where there are different forms and degrees of manifestation of psychometric environments [34]. Such a statement of the question, in our opinion, allows to introduce into the sphere of scientific methodology, in particular, within the framework of research into the phenomenon of social reality, such a characteristic of it as psychometricity from the standpoint of psychosynergetics and psychometric environments/systems which behavior is manifested in the social reality of society. This context combines:

– psychometricity of socio-humanitarian processes and the synergistic methodology for studying psychometricity, psychometric environments/systems;

– commonality of approach in the research – synergetic, psychosynergetic and alphalogical, respectively, the study of the components of the concept of the same name and the hyperwhole itself in the status of "synergetic object", "system/environment of synergetic order";

– the behavior of the concept "brain-psyche (mind/consciousness, …)" [25], of the theory of the same name, from the positions of the hyperwhole in the meaning of the constant or hyperwhole in the meaning of what becomes (alphalogy);

– the relationships between the components of the concept "brain-psyche (mind/consciousness, …)", as relationships between wholes or wholenesses based on and within the framework of the conceptual model "The Whole – in – The Whole" [35, 37]. Thus, summarizing the above, it becomes possible to trace the relationship of the correspondence of ideas about the mechanisms, characteristics and behavior of the phenomenon of self-organization in the conditions of the activity of the hyperwhole or hyperintegrity, presented, on the one hand, in the mentioned hypertheory, and on the other in human life; in the psychodimensionality of socio-humanitarian processes, in particular, in the personally oriented social reality and in the social reality of society. Thus, special attention should be paid to the imbalance of socio-humanitarian processes in the context of the hypertheory "brain – psyche (mind/consciousness, …)" in the aspect of social reality and its

behavior, which is influenced by its psychodimensionality. After all, the special role of the state of psychodimensionality of the social reality of the individual is manifested in the nature of the behavior of the social environment itself.

At the present stage of its development, humanity has encountered a macro- and multi-scale manifestation of a new phenomenon within the framework of the self-organization effect as a phenomenon of critical difference. This scientific concept, like many others, has entered the categorical-conceptual apparatus of philosophy and methodology of socio-humanitarian research on the theory of self-organization. As is known, two directions of self-organization have historically emerged: the theory of dissipative structures, non-equilibrium thermodynamics (created by the Belgian scientist I. Prigozhin in the period 1947–2003) and synergetics (initiated by the German theoretical physicist G. Haken in the period 1973–2024). Such structures of the new order are represented in the behavior of environments/systems of various nature that are self-organizing. They are characterized by irreversibility, which is a condition for the emergence of self-organization, chaos and a new order. Based on the ideas of these scientific directions, psychosynergetics, a methodology for studying the human psyche, psychodimensional environments/systems/processes, including the neuropsychic, cultural macrolevel, as synergistic objects of research, as well as alphalogy for the hyperlevel, is being developed.

The phenomenon of critical difference manifests itself in the present existence of humanity in various forms and in various spheres of human life: its mental and social reality (SR)/activity. Its manifestations are associated with the macroscale nature of the digitalization process. Let's show this with the example of the emergence of the phenomenon/effect of the critical difference between the psychodimensionality of a person and the degree/speed of digitalization of society.

The fundamental difference between environments characterized by psycho- and human dimensionality is their value-semantic, associative and intellectual-emotional basis. Its absence is fixed in the digital (digital). For example, a manifestation of neurophysiological specificity is the individual variability of the vascular network and blood flow rate in a person, to which he/she unconsciously reacts when perceiving another person. But the question is that this specificity is not present in the "digital object"/"subject". The human body and psyche are waiting for them in a communication situation. If there is no communication with a living organism, then the effect of a critical difference in methodological terminology is triggered, and in the aspect of reality a "failure" occurs, since the release of energy by one organism-interlocutor took place (activity of the vascular network and blood flow rate), because it prepared for the release of energy in response from the human interlocutor and its perception, that is, an energy exchange should take place at this level. In fact, the human interlocutor is exhausted during his/her communication with AI, AGI, ChatGPT, since there is no similar response.

The psychodimensionality of a person, his/her individual and social, socio-cultural activity and activity, in this context is understood as his/her quality, characteristics, determined by the emotional-intellectual, value-semantic and associative components of "b-p(m/s, …)", spheres of personality that do not obey "machine" logic. This is perceived from the standpoint of integrity.

The term "psychodimensionality" emphasizes that, for example, the expression "bright future" is understandable to a person, unlike SH I, AGI, GhatGPT, despite many explanations. The indicated and will remain only an imitation of human and psychodimensionality of a person, and upon reaching its high level, it is about a new entity and already "inhuman".

In fact, this is a qualitatively new type of SR – digital SR (with signs of Asperger syndrome) of different scale/level, which is realized in time and space, in the spatio-temporal continuum of individual, group: family, etc. origin. And if to talk about the psychometric dimension of SR, which is produced by a person, and not by a number, then it is considered, in historical and cultural aspects, as a product of the concept of "b-p(m/c, …)" of people who lived – the authors of a certain form of society, family culture, their values, which is perceived by the concept of a living person. SR continues to exist in time in a certain form in which it is preserved in civilization and perceived by living people. Form: theater, cinema, paintings, sculptures, myths and fairy tales, fiction, journalism, science, etc. due to this, it becomes a source of individual experience of those who live and, accordingly, their internal psychic and internal personal (as they grow older) SR. Such SR is characterized by psychometricity (the concept of psychometricity of social reality in the work of D. Kozobrodova [34]), since it was generated with the participation of the concept "b-p (m/c, …)" of those who lived and is perceived by those who live also with the participation of their concept "b-p (m/c, …)". It is transformed in the memory of a living person in the mode of predominance of the activity of the mental component of the concept "b-p (m/c, …)" – emotional-intellectual, value-semantic and associative.

So, it is obvious that in both meanings, the result is about the living. With digital authorship, SR changes its qualities, becoming non-human, non-psychometric (in the meaning of this context). Due to the war between a living person who lives and the psychometric SR made by him/her, and the digital reality perceived by him/her, a conflict (inconsistency, incoherence) arises at the qualitative level (at least, these are the three above-mentioned parameters). Its increase occurs in the mode of self-organization and leads to the manifestation of the effect of «critical difference».

In psychosynergetics, the idea of existence of a macrophenomenon is specified – the unity of the brain and psyche, brain and psychic activities, which are methodologically related to the recognition of the synergistic similarity of everyone's behavior and their unity. Conceptually, this position at the hyperlevel is presented in alphalogy.

For the conceptual designation of such a macrophenomenon at the hyperlevel, the concept «b-p (m/s, …)» was introduced – «brain-psyche (mind/consciousness and other components of the psyche, distinguished by science)». This concept assumes that the brain and mental activity of a person is a kind of unity of the material (brain) and the "immaterial" (psyche). In a similar quality, it is given to a person by nature, he/she is born with it and uses it all his life. In this interpretation, the concept of "b-p(m/s, …)" in the intravital phase of the hypersystem of the psyche in such a theory of the psyche is consistent with the concept of "alive".

Let's note that the famous physicist Ya. Frenkel formulated the main difference between living and inanimate nature as follows: "The normal state of any dead system is a state of stable

equilibrium, while the normal state of any living system, from whatever point of view it is considered (mechanical or chemical), is a state of unstable equilibrium, in the maintenance of which life consists". Therefore, in this perspective it becomes possible to formulate a new, global problem that humanity has faced. This problem is associated with the phenomenon of critical difference of what was described in mathematics and natural science in the second half of the twentieth century. for self-developing environments/systems of various nature. This phenomenon in modern conditions of rapid digitalization takes place in psychometric processes and in the SR of a person. The above appears as a threat, a danger to the very essence of a person – his/her value-semantic, emotional-intellectual, associative, that is, his/her unique human dimension. Under the influence of the digitalization process, there is a movement "from psychometricity" of the human environment and activity in the direction "towards numbers, machine logic". This leads to the "impoverishment" of human dimension, and in the future, it is possible to nullify it, replacing it with a "digital subject" with machine logic.

Thus, the legal framework of education that is being created should be developed on its direct basis, along with integration with general civilisational spiritual guidelines and fundamental human values. These spiritual origins, synthesised into a single whole, create a unique ideological basis for the formation of the legal framework of education as a democratic, integrated into the European and world educational space, open and tolerant system based on national traditions and universal fundamental values, which meets the conditions of today and the urgent needs of practice [10].

Naturally, in such circumstances, educational systems were faced with the task of spiritual and value renewal and consolidation. This, in turn, determined the guidelines for the practical implementation of the constructive *concept of the value dimension of the experience of subjects of pedagogical action* [26] in the educational space of higher education institutions. It should be noted that the *leading idea* of the concept of the value dimension of the experience of the subjects of pedagogical action is the provision that ***value experience*** is an *integral reflective and regulatory characteristic* of Human interaction with the World. The combination of *internal* and *external* functions of value experience (each of which in general forms a monolithic *affective, intellectual and volitional* component structure) represents an *integral* open and nonlinear *synergistic* system consisting of seven centres-functions (1. Experience of survival relations ("*rights and obligations*"). 2. Experience of complementary relations ("*partnership*"). 3. Experience of operational ("*business*") relations. 4. Experience of identity relations ("*love and empathy*"). 5. Experience of formative ("*creative*") relationships. 6. Experience of learning relationships ("*knowledge and skills*"). 7. Experience of ideological ("*value-oriented*")) relations that ensure the existence of the individual as an independent autonomous functional element/subsystem of the system of the natural and social World. As a single systemic whole, such experience, on the one hand, *manifests* the systemic integrity of the regulatory aspect of the *reflection of social practice*, and on the other hand, acts as a factor of integrity – a "s*ystemic regulatory force*" that *determines* this integrity. Awareness of the system's content reveals the systemic cultural and historical dynamics of changes in education paradigms, the meaning of which is specified in its two global *meanings*: cultural

and ideological and social power, the nature of which permeates all educational paradigms [26]. This has led to the need to identify new relevant content, main directions, mechanisms for forecasting, developing and implementing the philosophical and methodological dimension of vocational psychological and pedagogical training of future specialists in the field of technology and design in Ukraine, which would meet both the needs of the present and the future sustainable development of the state. After all, education is a strategic resource for the socio-economic, scientific and technological development of society, ensuring the improvement of human welfare, national security and interests, strengthening the authority and competitiveness of the state in the international arena.

Therefore, we see practical ***tasks*** in terms of further prospects in the implementation of "Programmes for Improving Teaching with Preservation of Ukrainian National Centricity", which should begin with:

1) searching for talented teachers on a nationwide scale who are capable of teaching in the area of pedagogical excellence development;

2) development of special methods of diagnostics for the selection of teacher-coaches for in-service training of university teachers;

3) creation of a competitive situation for the selection of teacher-coaches; testing and evaluation of the "Emotional, sensory and cognitive-volitional spheres of the teacher's personality" and its use in the development of the teacher-coache's pedagogical abilities.

CONCLUSION

We believe that a promising direction is to expand the scope of research on the pedagogical skills of teachers for higher education institutions in a human-dimensional holistic unity: cognitive, emotional and conative components. After all, it is the implementation of a scientifically and politically balanced educational policy that determines the degree of desire of university graduates for dynamic civilisational changes, their spiritual, moral and patriotic education, and their ability to serve the Motherland productively, to create life and to fulfil themselves in the society of the twenty-first century [19]. The main goal of such research work should be aimed at [10]:

– organising and conducting fundamental and applied research to solve topical methodological, theoretical, analytical and practical problems of ensuring the quality of education in terms of interaction in the "Human – Human" system;

– popularisation and implementation of research results, improvement of educational content and organisation of the educational process in order to develop personal pedagogical skills as an integral system of personal and professional development of teachers;

– promoting political, legal, spiritual, cultural, and socio-economic development of society by developing and implementing appropriate scientific, methodological, psychological and pedagogical support in educational practice;

– providing consultancy and scientific and expert support in the field of quality of learning and teaching to higher education institutions, conducting training and professional development for heads of structural units of higher education institutions;

– disseminating the experience of the Ukrainian Scientific School of Pedagogical Excellence in the field of quality of professional education in higher education institutions by improving the pedagogical and managerial qualifications of scientific, scientific-pedagogical, pedagogical staff and other academic staff; organising conditions for the formation, development and self-development of pedagogical skills of specialists, fulfilment of their intellectual, spiritual and cultural potential in the field of scientific and educational activities.

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