

## CHAPTER 3

DEVELOPMENT OF PERSONAL AND PROFESSIONAL QUALITIES  
OF THE FUTURE TEACHER UNDER THE CONDITIONS OF UPDATE  
OF THE INFORMATION CULTURE OF SOCIETY

## ABSTRACT

Modern society needs citizens who are creators of their own lives and contribute to innovation and development of society. The problem of developing the personal and professional qualities of the future teacher in the conditions of updating the information culture of society requires special attention, in particular, the search for ways to optimize the social formation of young professionals, the formation of their social maturity as a prerequisite for the individual's path to successful self-affirmation and interaction with the social environment.

One of the most relevant trends in the development of modern society is the informatization of social reality. The impact of information and communication technologies on society is wide and multifaceted, especially in the economy, culture and education. Today, information has become a leading factor in socio-economic, political-legal and spiritual-cultural development of modern society. Information and communication technologies increasingly influence various spheres of life, science, and education. It is also natural that with qualitatively new transformations in social life caused by the process of informatization, the question of the peculiarities of the integration of the individual into the social system has become topical.

Under the conditions of the introduction of informatization into all areas of human life and activity and under their direct influence, a complex of needs is formed in it, which corresponds to the development of the information society: in self-realization through the use of information and communication technologies in all aspects of one's existence; in self-development in the conditions of the formation of the information society; in constant updating and continuous improvement of professional capabilities. The realization of these needs is one of the fundamental conditions for the formation of social maturity of a person.

As a separate criterion of the social maturity of the future teacher, the ability for informational self-development is singled out. The content of the ability to informational self-development is revealed through the following indicators: the need for constant updating of knowledge; professional mobility and adaptability in the information society; responsibility when working with technical means; relation to information, objects and phenomena in the information environment; critical attitude to information consumption; self-assessment and reflection at the level of informational contacts.

## KEYWORDS

Future teacher, personal and professional qualities, social maturity, self-development, information culture of society.

The problem of developing the personal and professional qualities of the future teacher in the conditions of updating the information culture of society, in particular, the search for ways to optimize the social formation of young professionals, the formation of their social maturity as a prerequisite for the individual's path to successful self-affirmation and interaction with the social environment, is gaining particular importance.

The epochs of change in society make it necessary to compare and reconcile accumulated scientific experience with new facts of reality. In addition, social changes that provide a new point of reference, change the usual criteria of attitudes to the world, put forward new problems for science actualize its contradictions, formulate new tasks.

The relevance of studying the problem of formation and development of a mature personality is caused not only by the demands of science, but also by the requirements of life. An actively developing society sets increased demands on an individual, expecting the adult to be active, independent, self-sufficient and personally responsible, to construct a personal system of values and identity. Today's society needs citizens who are creators of their own lives and who promote innovation and development of the world. Therefore, solving the problem of understanding the essential features, structure, mechanisms and conditions of the formation of a mature personality will contribute to the development of society as a whole, since only a mature individual is able to create a harmonious and mature world around oneself.

It should be noted that the issue of social maturity has been given attention by researchers. It has become the subject of a thorough study mainly in such fields of scientific knowledge as philosophy, psychology, pedagogy, sociology.

Owing to the research of psychologists: K. Abulkhanova-Slavskaya, B. Ananiev, O. Asmolov, L. Bo-zhovich, D. Leontiev, M. Pokras et al., we have deep understanding of the social maturity phenomenon.

O. Andrienko, O. Ganzha, M. Yemlyanova, O. Kameneva, M. Lebedyk, V. Radul, O. Soldatchenko, O. Temruk et al. studied the social maturity of the individual in the context of the future teacher's training.

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Today, information has become a leading factor in the socio-economic, political-legal and spiritual-cultural development of modern society. Information and communication technologies are increasingly influencing different spheres of life, science, education. It is also natural that with the

qualitatively new transformations in the life of society caused by the process of informatization, the issue of the peculiarities of the integration of an individual into the social system is actualized.

S. Afanasiev, S. Duka, T. Eriksen, M. Kastels, M. Moiseiev, I. Negodaiev, S. Rastorguiev, E. Toffler et al investigated the problem of personality formation in the information society.

In the conditions of informatization introduction in all spheres of life and human activity as well as under their direct influence, there forms a complex of needs that corresponds to the development of the information society: in self-realization through the use of information and communication technologies in all aspects of one's existence; in self-development in the conditions of formation of the information society; in constant updating and continuous improvement of professional capabilities.

The realization of these needs is one of the fundamental conditions for the development of person's social maturity.

The analysis of the specialized literature gives us the right to say that there are almost no studies that integrate these issues into one whole, which is comprehended in the social and philosophical aspects. In the current scientific discourse, there is no consensus on the integrity of the individual, one's social maturity in the information society, and thus gives the topic of research a problematic character.

The aim of the study is to characterize and test ways of developing the social maturity of the future teacher in the context of updating the information culture of society.

In order to solve the formulated tasks in the research, we have used a set of interrelated theoretical and empirical methods of pedagogical research:

- theoretical: learning, analysis and generalization of scientific literature to familiarize with the state of the problem under study, systematization, comparison, generalization of scientific and theoretical data obtained;
- empirical: questionnaire, pedagogical experiment – to check the effectiveness of the ways of development of social maturity of future teacher in the conditions of updating the information culture of society;
- methods of mathematical statistics in order to verify the accuracy of the study results.

There are many approaches in the scientific literature to construct the structure of social maturity and to identify the components that are most important and play the role of the "supporting element", "core" of social maturity [1].

Before beginning the analysis, it should be mentioned that at least two theoretical and methodological approaches exist to reveal the essence of the concept of "maturity". First, maturity is understood as a separate period in the development of person, the longest and most productive in the sense of industrial relations. In terms of time limits, it is limited to the end of adolescence and the beginning of aging. Second, maturity is interpreted as a certain integral property of the individual, which consists in the possession of certain qualities that contribute to the harmony of human interaction with the environment and themselves, an effective solution to life's tasks. It should be first noted that maturity is understood not as a period, but as a quality of personality, so the first

approach is considered by us only as a guideline in the temporal plan of human development, and the other is taken as the basis in the study. The approach we have chosen rather studies not the notion of maturity at all, but maturity as a concrete manifestation of the process of maturation in a person's relationships and personal qualities.

K. Baker and G. Varga argue that this quality should be distinguished from physical maturity, which is manifested in the final formation of the organism and its preparation for the fulfillment of all basic functions, as well as from psychological maturity, which is at the level of development sufficient for effective activity cognitive processes, emotions and will [2].

The dictionary of psychology states that maturity is a state of full personality development, complete readiness for anything. Her associated with growing up personality, readiness for the highest development spiritual, intellectual and physical abilities. To the defining features of mature personalities belong to developed sense responsibility, the individual 's need to care for others, the ability to be active interaction with others, effective using their own knowledge and practical skill constructive solution complex life problems on the way to self-realization [3].

Psychologist G. Olport [4] names maturity temporary interval, process, that step by step takes place in time and space. It continues for everything life depends on it from motives personality.

The author singles out such basic characteristics of psychologically mature personalities: mature person has wide the limits of "I". She can look on the side, to see your positive and negative features, its social activity (communication with others, interest a certain type of activity, desire to solve political and religious the question is yours life and life others); mature person always ready for warm social relationship that appear in the following categories: friendly intimacy and compassion. It characterizes the first ability a person worry deep love, respect, understanding for relatives and close people. The second is understanding, empathy and tolerance for others; mature person perceives himself/herself objectively and always emotionally stable. She adequately treats her own the shortcomings also led to the fact that her maybe to annoy. It is explained skills cope with oppression, feelings anger and guilt. That's it attitude towards life has a positive effect on the personality itself and on people who are located next to mature person realistically perceives surrounding world, own experience and harassment; mature person perceives himself/herself positively, therefore he is ready for self-discovery. Important component of self-knowledge is humor because he allows people to see and perceive extremely absurd aspects own and other people's lives situations; from Rila man has integral vital philosophy, and therefore can single out important things in their own life thanks to formed by system values [4].

In the study of K. Abulhanova-Slavska [5], it is stated that a mature person strives to realize his/her life line, that is, to realize himself/herself as the subject of his/her personal life. The same opinion is held by V. Safin [6], emphasizing that an indicator of personality maturity is self-awareness as a subject capable of objectively perceiving the surrounding world and relationships, ready to create and perform socially significant activities.

Maturity of the individual is manifested in various types of culture and is determined by social self-determination, activity and degree of responsible attitude to the intended goals, the nature and

quality of planning to achieve them. The value orientation of the individual is a necessary element of the content of a person's maturity, a necessary link in the determination of his real actions and deeds in the field of work, knowledge and communication. Activity is a human way of relating to the world. M. Kvetnoy singles out the general points of human activity as a whole system: "By its content, activity is a process of practical, subject-transformative assimilation by a person of the objective world, which is the very "self-affirmation of a person". According to the method of regulation, human activity unfolds on the basis of consciously defined goals (ideal projects, plans, programs, forecasts). According to the means of implementation, human activity is implemented through the mechanisms and products of culture historically formed and mastered by the subject of activity [7].

Summarizing the results of scientific research on the interpretation of the essence of the concept of "maturity" makes it possible to define "social maturity".

In the large modern encyclopedia of pedagogy, "social maturity" is defined as the level of formation of attitudes, knowledge, skills and ethical qualities, which is sufficient for the voluntary, skillful and responsible performance of the entire set of social roles characteristic of an adult [8]. In the narrower sense, this term means a set of personal qualities of the subject, which constitute his/her ability to interact with other people in the process of achieving common goals [9].

According to N. Andrienkova, social maturity is a stage of personality that occurs at the end of socialization [10]. We do not agree with this statement. Socialization occurs throughout a person's life. Therefore, social maturity is a characteristic of the impact of the socialization process on the holistic development of the individual. Social maturity is unthinkable without the process of socialization of the human individual.

According to L. Kogan, social maturity "is a systemic quality, state, degree of development of the personality system as a whole. The social maturity of an individual is characterized by the degree of assignment of social relations and their implementation in practical activities, that is, the degree of development of the socially essential forces of the individual, his worldview, knowledge, abilities, needs, skills, abilities, social feelings" [11]. It is necessary to reflect on events, by degree social and personal coherence in them interests about social maturity personality.

L. Kogan refers to the most general, albeit insufficient, signs of social maturity:

a) compliance of this personality with the main essential characteristics of the historical personality type;

b) conformity of her lifestyle, her life activities to the requirements of the environment to the lifestyle of each individual [11].

M. Lebedyk correlates the concept of "social maturity of an individual" with the categories "socialization of an individual", "sociality of an individual" and "social type of an individual" and reflects the specific historical and cultural conditions of the development of society and serves as a benchmark for those social qualities that students must master. The scientist points out that in the process of socialization, the student's sociality is formed and developed in accordance with the "requirements" and "goals" of society, where sociality presupposes the presence of collectivity and

general actions of students, their social groups and collectives, which make them capable of acting as subjects of social production, the subject of history [12].

Analyzing social maturity in the context of the formation of the professional orientation of an individual, T. Komar comes to the conclusion that social maturity is one of the main socially determined substructures of the personality, therefore, according to the scientist, it exerts a significant influence on the formation of the professional orientation and professional maturity of the individual, which according to its essence, it is also the result of socialization of the individual, education, upbringing, personal and professional development [13].

Analyzing the meaning of the concept of "social maturity of the personality of the future teacher", it should be noted that this is the maturity that appears "for others". As O. Kharchev notes, "the more mature our society becomes, the more the role of the human factor in its functioning grows in it, and therefore the importance of education, which is designed to have the greatest impact on the realization of human potential as a biosocial structure" [14].

Thus, M. Yemelyanova, researching the formation of the professional maturity of a social teacher in the educational process of a university, interprets social maturity as a substructure of professional maturity as follows: "social maturity in the structure of professional maturity is an integrative quality of an individual that integrates social knowledge, social experience and social responsibility, providing individuals successful socialization and harmonization with the environment" [15].

Investigating the social maturity of students of the Pedagogical institution of higher education O. Kameneva defines social maturity as an integrative quality of the individual, which is characterized by the presence of social responsibility, social activity, tolerance, reflection, creativity and the inclusion of public interests in the content of one's own value orientations [16]. At the same time, the scientist emphasizes that "the development of an individual's social maturity takes place over a long period of time and presupposes the presence of an individual's age-related predisposition to this process, and the chronological boundaries that separate social immaturity from social maturity are mobile and individual for each individual" [16].

The results of O. Soldatchenko's scientific research deserve special attention. The pedagogical concept of the formation of social maturity of higher education students developed by the scientist is built on the basis of a social order for the formation of socially mature specialists, the main characteristics of which are social responsibility, the ability to carry out social interaction based on partnership relations, the presence of a system of universal humanistic values and a formed civil position, the ability to act in non-standard situations, initiative, etc. [17].

Understanding the formation of social maturity of students of higher education institutions as a self-organizing system allows to determine two complementary patterns that determine the effectiveness of this process. The first regularity reveals the connection between the method of management and the effectiveness of the process of developing social maturity of higher education students and is formulated as follows: the effectiveness of the process of developing social maturity of higher education students decreases if this process is tightly controlled externally. The second regularity complements the first and is explained as follows: the effectiveness of the process of

developing the social maturity of higher education students increases if the transition from external management to self-management is carried out through this process [17].

V. Maksimova singles out social maturity as an integration criterion that reflects the quality of education, the results of training, upbringing and development [18]. Education in this context is associated with students' achievement of general cultural, pre-professional competence; the ability to solve tasks of a diverse nature (cognitive, value-oriented, communicative), relying on the acquired social experience [18].

By social maturity, S. Vershlovsky understands a person's focus on behavior in society, which involves the ability to make independent and responsible decisions, determine one's own life path, and strive for self-development and self-improvement. According to this approach, the main components of social maturity are called: developed cognitive experiences, critical thinking, readiness for cooperation, tolerance, responsibility, self-respect, which are detailed in independent cognitive activity, conscious choice of profession, way of personal life, organization of one's leisure time, preservation of health [19].

T. Khmurnyska shows significant scientific activity in the study of the phenomenon of "social maturity" at the current stage. Thus, considering the essential characteristics of the socio-professional maturity of future social pedagogues in higher educational institutions, the researcher [20] notes that the maturity of a person is largely manifested in the culture of personal aspiration, is determined by the degree of responsible attitude towards the set goal, the nature and quality of planning for its achievement. Therefore, social maturity includes a complex range of intellectual qualities and social feelings: an objective vision of the world; historical (life) optimism; hard work; high professionalism [20].

According to T. Khmurnyska, in the pedagogical sense, the content of social maturity reproduces only what is actually formed in a person in the form of personality qualities, as well as what is transformed from the outside into the internal structure of new formations of the personality directly "participates", is realized in his/her transformative activity, aimed at improving activities and relationships that shape the personality and other people. Therefore, in the opinion of the scientist, in the pedagogical analysis it is appropriate to proceed from the fact that not only the activity forms the social qualities of the pupil, but also the accumulated personal potential is realized for the improvement of this activity and social relations. "Such a bilateral relationship can be a sign of the social maturity of an individual", writes T. Khmurnyska [21].

Also, T. Khmurnyska notes that the process of forming social maturity does not include in its structure the final stage, the stage of unconditional social maturity. After all, as soon as a person stops working on himself/herself, improving himself/herself, developing as a person, social maturity loses its relevance. After all, its essence lies in the desire for self-development, the search for new forms, methods, and tools for improving professional activity, and the manifestation of a creative approach when solving complex tasks. A feature of the formation of social maturity is the continuity and systematicity of this process. "Social maturity is formed throughout a person's life. The systematicity of this process can be seen in ensuring the formation of social maturity in activity, in particular implementing the logic of continuity", writes the scientist [21].

By exploring various approaches to definition of the essence of the concept of "social maturity" in pedagogical research, M. Shkolna established what, despite conflicting views on this issue, all researchers agree that this is a desirable social personality type that is closely related to development society and includes knowledge about society, respect for society's values, compliance with social norms; formed complex of basic social personality qualities [22].

Like any complex, integral phenomenon, social maturity consists of separate components. As such, there are certain states and personalities that accompany her activity in various spheres of society life.

Investigating the development of the social maturity of the future teacher in the conditions of updating the information culture of society, Y. Galeta comes to the conclusion that in pedagogical studies the social maturity of the individual is investigated in the context of the theory of socialization, since one of the priority tasks facing the education system today is to ensure the effectiveness of the flow process of socialization, and social maturity is considered as the result of this process [23].

Y. Galeta exploring a variety of approaches to defining the essence of the concept of "social maturity", the difference of views in the understanding of personality and its maturity explains the absence of a single theory capable of fully describing the development and formation of social maturity.

In the course of the scientific search, the researcher discovered that the meaning of the concept of "social maturity of the individual" in various sciences is revealed as a stage; moment of progress; system status; the position of the individual in society; a person's acquisition of an independent social position; realization of the need for self-improvement; result of socialization; readiness for social self-realization; personal self-determination; multidimensional human condition, acmeform; integration characteristics of the individual; a complex of personal qualities; age and socio-pedagogical characteristics of a person; integration criterion of the results of education, upbringing, development; the result of human development. A mature person should be responsible and active in carrying out activities, his/her actions correspond to the requirements of humanity, relations with himself/herself and other people should be harmonious. In general, such a personality is characterized by freedom of choice and independence, as well as possession of the integrity of characteristics and worldview [23].

The author shows that in the context of the author's conceptual approach, the "social maturity of the individual" is understood as the process and result of the impact on the individual of a set of social relations, which lead to the formation of the basic properties of the individual, which fundamentally adequately reflect the essence of modern society. The presence of such a mechanism allows the functioning of the feedback system of the individual and society, which is determined, in turn, by the level of development of social relations [23].

According to the statement Y. Galeta, "a feature of the formation of social maturity is the continuity and systematicity of this process. Social maturity is formed throughout a person's life. The systematicity of this process is seen in ensuring the formation of social maturity in activities, in particular, implementing the logic of continuity with methodological approaches regarding the formation of social maturity of students of higher education institutions, in addition to synergistic,



there are socio-interactive and socio-educational approaches" [23].

Y. Galeta draws attention to the fact that the social maturity of a future teacher characterizes his development, which is determined by the level and features of interaction with the social environment, other people, a high level of integrity and stability of the individual, his readiness for personal and professional self-determination, labor activity, the identification of an active social position) [23].

The researcher rightly points out that the social maturity of an individual in the conditions of updating the information culture of society consists in mastering the technologies of interpersonal communication, social navigation and rules of behavior in computer networks, as well as social norms, values and role requirements that exist both in specific virtual network communities, as well as in the social community of the information space as a whole.

According to the scientist, the specificity of the process of developing the social maturity of students of a pedagogical university lies in its sequence and the possibility of including students in various types of activities. In this regard, the researcher suggests implementing stages in the formation of social maturity of an individual:

- motivational stage (at this stage, students are formed to focus on the motivation of socially valuable activities);
- social action stage (ensures the acquisition by students of a set of skills to carry out socially valuable activities based on their own accumulated experience);
- social-creative stage (the task of this stage is to create conditions for independent implementation, search and development of skills for organizing socially valuable activities. The most important function of this stage is to expand the boundaries of social interaction and provide a wide range of opportunities for social interaction at different levels – from intragroup and intergroup to interaction with social structures (social services of the city, institutions of additional education, youth associations and the like) [23].

An analysis of the works of many scientists proves that each of them singles out their own criteria for personality maturity.

So, O. Ganzha distinguishes and justifies criteria for the development of the level of social and professional maturity of student youth:

- self-determination (the desire to acquire a profession; the desire to achieve success in life; the identification of mutual understanding and adequate behavior in relation to the environment; using the opportunities of the environment to realize one's aspirations; taking into account the opinions of others);
- activity (desire for self-realization; to be useful to others; to be a leader; to have an active position in life);
- responsibility (having a sufficient level of professional training; demonstrating responsibility for assigned duties; taking into account the opinions of others; being responsible for oneself and others) [24].

The scientist emphasizes that "in order to obtain a holistic assessment, it is necessary to analyze them in unity, since the relationships between them serve as a sign of the holistic formation

of the socio-professional maturity of an individual" [24].

In the process of constructive analysis and based on the obtained results of research and experimental work, the scientist comes to a balanced conclusion that social activity and social responsibility of students in the conditions of a higher education institution of pedagogical direction are formed by means of creative problem solving with the help of the content of social self-determination [24].

Scientists, based on the methodological basis of their own research, identify different criteria of maturity. Quite common are those oriented either to adaptation to the society (socially oriented) or to the discovery of the resources of an autonomous personality, individuality (individually oriented).

Considering socially oriented indicators of maturity, it is necessary to distinguish two spheres of the relationship of personality: with close environment – "I-Others" and with society – "I-Society".

Researchers in the I-Others field identify the following characteristics of a mature personality: the need to care for other people; the ability to be psychologically close to another person. Thus, V. Petrovskiy connects the maturity of a person with personalization, namely, the one's being lying in other people.

The works of V. Orlova [25], V. Slobodchikova [26] are devoted to the criteria of personality maturity in the sphere of "I-Society" [26]. They distinguish values orientation, social and moral norms, beliefs and attitudes.

G. Yavorska [27] work highlighted such criteria requirements maturity personality:

- objectivity examination (signs recognized criteria should actually manifest in this process or phenomena);
- representativeness (the qualities of a person, endowed with the traits of the criterion, must be stable and sufficient for describing and evaluating representatives of the chosen type or community);
- the use of interpretation (representation of general sociological categories by empirical indicators and indicators) [27].

The author also outlines the requirements, which at the same time are the principles of organization of the system of criteria of social maturity: systematicity (a characteristic of the social maturity of an individual in the unity of all its structural elements) and the unity of objective and subjective criteria with the determining function of the former (unity of actions, real behavior of the individual as criterion of maturity and indicators of a person's internal subjective world, the state of his knowledge, beliefs, needs, which are regulators of his actions) [27].

I. Kon pointed out the contradictions in the allocation of criteria for assessing social maturity. He writes that, "trying to formulate a single criterion of social maturity, some authors choose the beginning of an independent working life as such a criterion. Taking this criterion as a basis, we would first of all find a huge pitfall uniformity in the rates of social maturation of different groups of youth: rural youth mature earlier, then workers, and later – youth, students" [28]. I. Kon does conclusion that necessary considers social maturation as multidimensional process that has not one, but several criteria. To the most important and he is one of them refers to: "completion education, acquisition stable profession, the beginning of work activity, material independence from parents,

political and civil coming of age, serving in the army (for men), marriage, birth the first child. Transition from childhood to adulthood characterized by increase quantity and expansion range actually available or legally binding for an individual given age social roles that related to expansion spheres him life activities. In process development substantially is changing subjective significance and correlation different roles and related relations" [28].

In the context of the idea of the development of social maturity of the individual, we are interested in individually oriented indicators in the system of "attitude towards oneself". These include: the ability to effectively use one's own knowledge and abilities [29], the ability to constructively solve different life problems on the way to completeness of self-realization [30].

N. Leonov believes that the study of personality maturity by socially and individually oriented criteria is isolated and even unproductive in their relationship. He believes that their integration gives rise to qualitatively new subjective integration formations that ensure the integrity of the individual's maturity and organize one in a particular way [31]. Therefore, in order to study the maturity of the individual, it is necessary to analyze the process of one's development, formation, researching as criteria indicators of subjectivity, which are born in the process of integration of social and individual components of social maturity.

In particular, the Ukrainian scientist V. Radul came to this conclusion. He states that one of the main conclusions that exist in most scientific studies concerning the notion of "social maturity" is the conclusion that the individual acts as a subject of human activity aimed at transforming the surrounding reality [32].

Our analysis has shown that the content of the definition of "personality's social maturity" in various sciences is revealed as a stage; moment of progress; system status; the position of the individual in society; obtaining a person's social status; realization of the need for self-improvement; the result of socialization; readiness for social self-realization; personal self-determination; multidimensional human condition, acmeform; integration characteristic of the individual; complex of personal qualities; age and socio-pedagogical characteristics of a person; integration criterion of results of training, education, development; the result of human development.

It should be noted that a mature person should have responsibility and activity in carrying out actions, one's deeds are in accordance with the requirements of humanity, relations with oneself and other people should be harmonious. In general, such a personality is characterized by freedom of choice and independence, as well as by possessing the integrity of characteristics and world outlook.

Responsibility is one of the characteristics that ensure their adequate fulfillment, as the basis of the formation of this quality is the mechanism of interiorization, the incorporation of external demands of society into the internal structure of motivation and is a criterion characteristic of the social maturity of the future teacher.

The next criterion directly related to the responsibility of the individual is the social orientation of person's behavior, in general, and of the future teacher in particular. The criterion based on the tasks and beliefs of the authors under our consideration regarding the maturity of a person is the active participation of a person in the life of society (activity). Activity should be considered in a

complex with the concept of responsibility. The socially mature pedagogue should be able to be responsible for the results of one's actions and the choice made.

Another maturity criterion we offer is the ability to interact. The relationship between the criterion of ability to interact and the criterion of personality self-dependence (the fifth criterion) can be traced through the notion of psychological space. A healthy measure of independence from the environment and the sovereignty of a person's psychological space lies in the ability to uphold the sovereignty of values.

In the conditions of informatization of education, the general set of professionally important qualities necessary for the success of professional activity is supplemented by the specific qualities that characterize the level of information culture of the teacher. This logic allows to consider as a separate criterion of future teacher's social maturity the ability for information self-development.

In choosing the conditions of development of the phenomenon under study, we have preferred such measures that do not require a significant complication of the pedagogical process. We believe that pedagogical conditions should be determined by the available possibilities of the pedagogical process, which can accelerate and improve the result.

According to L. Vygotsky, "development is continuous process self-propelled, that characterized by above all permanent emergence the formation of a new one that was not there in the previous ones stages" [33]. That is, acquired quality is more adapted, more perfect. Self-development is the development of someone or something on their own, without influence, without the assistance of any external forces. Self-development is mental or physical development the person it reaches independent classes, exercises [33].

Self-development is the subject's self-change in the direction of his/her ideal self, which arises under the influence of external and internal factors.

The concept of "self-development" is in the interdisciplinary context of such sciences as pedagogy, philosophy, sociology, psychology. In the encyclopedic literature, various interpretations of the concept of self-development are offered. On the one hand, it is interpreted as mental or physical development the person it reaches independent classes, exercises, or someone's development by one's own forces, without the influence or assistance of any external forces, on the other hand, self-development is defined as self-movement, which is characterized by a transition to a higher level of organization [34].

Psychology reveals facts, mechanisms and laws mental activity, and that is why in psychology the term "self-development" rightfully occupies a central place, because the specificity of self-education as a factor of personality development is that, among all other factors, it relies to the greatest extent on the individual physiological and psychological characteristics of a person, his/her inclinations and needs and is an interesting subject for research and study by psychologists. Thanks to this, a person manages to identify dominant qualities for himself/herself, which in the future can significantly determine his/her entire life path, ensure the development of physical, intellectual and moral qualities. The results of the experiments of modern psychologists confirm that a personality becomes harmonious not due to the "proportional" and "even" development of all its qualities, but as

a result of the maximum development of those abilities that dominate its structure and determine the meaning of its life and activity [35].

In the formation of a personality, its various orientations seem to compete with each other, until the one of them appears, which will unite all the others around it, penetrating into each of them. That's its dominance is not the displacement of other human qualities, but the transformation of one of them into a leader. This is a special variant of "coordinating individual aspirations by uniting around the strongest of them" [36].

V. Andreev [37] formulated the law of creative self-development of the individual as a person of culture. The essence of this law is that education turns into self-education, learning into self-learning, socialization into self-realization, provided that a person actively masters philosophical, psychological, and pedagogical culture, that is, becomes a philosopher, a psychologist, and a teacher for himself/herself.

Thus, O. Glavatska [38] states that: "Self-development is carried out both in spontaneous, unconscious forms (imitation, play, adaptation, etc.), when the individual does not set a goal to change himself through his own efforts, and in conscious, consciously determined, purposefully used to achieve a mental boundary, an ideal (self-education, self-creation, self-improvement). Conscious forms of personal self-development have an activity-providing and spiritual-valuable nature" [38].

S. Kuzikova [39] offers the following definition of the process of self-development "...as a varying degree of conscious, self-controlled and self-directed activity of an individual – self-development as a psychological and personal change" [39]. The author emphasizes that such a multifaceted understanding of the essence of the researched process allows to fill it more meaningfully, to adapt it for better understanding, and we agree with this vision.

In the process of self-development in an individual, conscious mechanisms for managing this process are already included, because it is carried out in accordance with the ideas and goals of the individual himself/herself. The basis of self-development is a person's need for new achievements, the desire for success, for improvement, an active life position, positive thinking, faith in one's abilities, understanding the meaning of life, and this is nothing but conscious motivation.

As we can see, this definition of self-development emphasizes the role of homeostasis, a means of maintaining the immutability of the individual's Self, his psychological health in a changing world (in this case, self-development can be spoken of as an adaptation strategy, emphasizing its functions of self-regulation and self-organization). This view is reflected in the congruent approach to understanding the process of self-development, the main idea of which is that its function is the harmonization of a person's relationship with himself/herself and the surrounding world (K. Vazina, M. Mamardashvili, K. Obukhovskiy, O. Suvorov). And in this definition, self-development is presented as a conscious and controlled activity of the individual.

The opinion of R. Faizullin is important [40], who believes that self-education and self-development can be represented as a continuous expansion of the scope and content of self-awareness, that is, the inclusion of an ever-increasing number of human life functions, habits and mental states into the sphere of consciousness [41].

Self-development as mastering the opportunities that life offers to a person is considered by D. Leontiev [42], H. Ortega-i-Gasset [43] and others. According to H. Ortega-i-Gasset "to live is means be in circles certain possibilities..." [43].

As we can see, attention to the process of self-development is due to its defining role in the life of an individual, the active inclusion of a person in the process of his/her own life creation. This position is stable in Ukrainian psychological science (H. Ball [41], H. Kostyuk [44], etc.). However, there is a terminological discrepancy and difference in the interpretation of the psychological essence of self-development by various scientists.

Self-development is closely related to self-realization, but has a slightly different motivational basis: to develop, to enrich one's essential powers for better self-realization in the future. Here, human activity is aimed at itself.

In the context of dialogical, inherently humanistic communication, students receive experience of using constructive forms of interaction, responsibility for the effectiveness of such a form of activity [45].

Taking into account various factors, dialogue in the classroom can be constructed as:

- dialogue-imitation: oriented on a question-and-answer form, where the role of the leader is assigned to the teacher;
- dialogue-discussion: involves communication of conditionally "equal" subjects in the educational process;
- dialog-cognition: which encompasses the complex interconnections and cognitive relationships of the subject with the world, with others, with oneself.

In the course of the research, the conditions for dialogue realization have been identified. One of them has been the reflexive management of its performance, when the teacher not only sets the goals of students' mastering an educational standard, but seeks to ensure that these goals are internally accepted.

Technology of creating a dialogue has the following steps:

- selection a value component in the professional problem (facts, ideas, life problems);
- transformation of deductive-descriptive statements into questions-answers, problematic ones;
- building a logical system of questions;
- thinking through evaluation questions in order to develop in students a value attitude to a professional problem.

Research and experimental work on vocational training of students on the basis of dialogic interaction has been carried out in the system of all cycles of disciplines of establishments of higher education, including pedagogical practice.

Productive technology in the development of social maturity of students – future teachers, the technology of workshops has been implemented within the framework of the first pedagogical condition.

The basic ideas of this technology correspond to the essence of the principles of dialogization and personalization of education:

- everyone are able to do it;

- the knowledge of one person must be enriched with the knowledge of others, a constant dialogue with the author, pedagogue, friends, oneself is needed;
- learning takes place in an atmosphere of openness and complete equality of participants, where everyone has the right to make a mistake, where ignorance and failure are respected.

The conditions that contribute to the increasing efficiency of independent work have been defined: the presence of the necessary training and methodological support, the existence of a system for monitoring the quality of independent work; the presence of a mobile feedback system (for example, the presence of a test system); computer support.

The organization of independent work in the information environment is associated with identifying the stages of the process of this work.

The first stage is awareness of the need to find information, to identify search goals. The second stage is the information search. The third is the processing of information, the choice of storage method. The fourth is the transfer of information into knowledge (application in practice).

We have outlined the main stages of creation and integration of information and learning environment resources in the traditional educational process:

1. The initial or "innovation" stage is usually characterized by the fact that the profile of the traditional course does not change.
2. The second stage is defined as the stage of "pedagogical modernization" – change of course profile.

During the research, a project has been designed to create an information and educational environment – a dynamic system, which is a holistic set of educational situations that are gradually substituting one another. Educational situation means a system of psychological and pedagogical and didactic conditions and incentives that put a person before the need for conscious choice, adjustment and implementation of their own model of learning, i.e. the implementation of independent learning activities.

The information and educational environment implements the following functions:

- prompt delivery of educational information to the learner;
- interaction between all participants of the educational process and feedback from the lecturer;
- providing individual and group independent work.

In order to stimulate the use of knowledge and skills acquired during the course, professionally oriented motivational-stimulating situations have been used, providing for certain steps and sequence of implementation, namely:

- conducting a common orientation in the personally meaningful subject area for students;
- identification of problems of interest to students as future teachers;
- consideration of problems in the context of students' professional and personal values.

An effective version of the organization of students' club work – "virtual laboratory", has been developed and tested.

Our experience of pedagogical practice is based on the use of so-called enhancing technologies that provide "significant benefits" without being fundamentally new to technologies and approaches.

It has been proved that one of the innovative approaches to the organization of pedagogical practice is the scientific-practical conference that precedes it. Unlike a traditional conference, it involves several steps. The first stage is demonstrative lessons of school teachers. In the second stage, in the round table mode, there is a joint reflection of teachers, students and lecturers of the establishment of higher education. The third stage – "student reading": future teachers offer for collective discussion their own research work on pedagogy and psychology, teaching methods (the topics of the reports correlate with the content of demonstrative lessons). The final stage is conferences, the final reflection of all subjects of the educational process, in the context of which students receive recommendations for future practice.

We also consider portfolio as an innovation in teaching practice.

The experience of organizing pedagogical practice of students, which involves its support through a specialized faculty website containing information on pedagogical practice, has been implemented.

Technology of pedagogical support of future teacher's professional training within pedagogical practice framework includes the following stages:

- 1) the target – the stage of self-knowledge of educational needs;
- 2) the motivational – the stage of programming changes in one's personality;
- 3) the procedural – the stage of implementation and demonstration of own presentation;
- 4) reflection – the stage of opening a resource of new opportunities.

It has been found that one of the effective methods of extending social experience and developing social maturity is social practice. We have implemented the following types of social practice: charity activities; volunteer activities. Opportunities of the project method have been introduced. The method of projects implemented in the educational process, determines the formation of social characteristics, promotes the development of social maturity of the student, one's willingness to adapt in society, professional activity.

An important factor in the activation and development of student research work is the effective organization of individual student research work. The individual approach allows the implementation of the statements:

- involvement of students in research work from the very 1<sup>st</sup> year and continuous observation of their professional and scientific growth throughout their period of studying in higher education;
- availability of a permanent research topic during the last 2–2.5 years of study;
- relevance of the subject of research work of students with the profile of specialists training;
- practical orientation of research work, possibility of realization of scientific developments in practice;
- merging of student work topics with complex topics being developed by the departments, possibility of publishing student scientific works;
- presence of a competent specialist as a scientific supervisor;
- introduction of "research training", when a skillful student works from the very beginning of the study not on the diploma, but on the dissertation (thesis) research;
- an individual education program aimed at identifying talented students and stimulating their scientific research activities.



### 3 DEVELOPMENT OF PERSONAL AND PROFESSIONAL QUALITIES OF THE FUTURE TEACHER UNDER THE CONDITIONS OF UPDATE OF THE INFORMATION CULTURE OF SOCIETY

Essential for activating students' scientific research work is holding competitive organizational and public events, competitions for the best group, department, faculty in organizing students' research work within the framework of establishment of higher education.

The results of the evaluation by the experts of the level of development of social maturity of the future teacher we have displayed according to the criterion "ability of informational self-development" (**Table 3.1**).

● **Table 3.1** The level of development of social maturity of future teachers according to the criterion of "ability of informational self-development" in the expert group

| No.          | Indices   | Experts   |           |           |           |           |           |           |           |           | Total      |
|--------------|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
|              |   | 1         | 2         | 3         | 4         | 5         | 6         | 7         | 8         | 9         |            |
| 1            | The need for constant updating of knowledge   | 7         | 6         | 7         | 6         | 6         | 7         | 6         | 6         | 7         | 58         |
| 2            | Professional mobility and adaptability in the informational society                 | 6         | 6         | 6         | 7         | 6         | 7         | 6         | 6         | 7         | 57         |
| 3            | Responsibility when working with technical means                                    | 7         | 7         | 8         | 7         | 8         | 8         | 8         | 7         | 8         | 68         |
| 4            | Relationship to information, objects and phenomena in the informational environment | 4         | 5         | 4         | 5         | 2         | 4         | 4         | 4         | 4         | 36         |
| 5            | Critical attitude to information consumption  | 4         | 4         | 5         | 4         | 2         | 5         | 5         | 5         | 5         | 39         |
| 6            | Self-esteem and reflection at the level of information contacts                     | 4         | 5         | 5         | 5         | 4         | 5         | 5         | 5         | 5         | 43         |
| <b>Total</b> |   | <b>32</b> | <b>33</b> | <b>35</b> | <b>34</b> | <b>28</b> | <b>36</b> | <b>34</b> | <b>33</b> | <b>36</b> | <b>301</b> |

Since the expert study has been conducted by the method of direct evaluation, we will normalize them.

The results of the normalizing are shown in **Table 3.2**.

● **Table 3.2** Normalized estimates for EG

| Indices      | Experts  |          |          |          |          |          |          |          |          | Total    |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|              | 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8        | 9        |          |
| 1            | 0.22     | 0.18     | 0.20     | 0.18     | 0.21     | 0.19     | 0.18     | 0.18     | 0.19     | 1.7385   |
| 2            | 0.19     | 0.18     | 0.17     | 0.21     | 0.21     | 0.19     | 0.18     | 0.18     | 0.19     | 1.7081   |
| 3            | 0.22     | 0.21     | 0.23     | 0.21     | 0.29     | 0.22     | 0.24     | 0.21     | 0.22     | 2.0429   |
| 4            | 0.13     | 0.15     | 0.11     | 0.15     | 0.07     | 0.11     | 0.12     | 0.12     | 0.11     | 1.0704   |
| 5            | 0.13     | 0.12     | 0.14     | 0.12     | 0.07     | 0.14     | 0.15     | 0.15     | 0.14     | 1.1545   |
| 6            | 0.13     | 0.15     | 0.14     | 0.15     | 0.14     | 0.14     | 0.15     | 0.15     | 0.14     | 1.2856   |
| <b>Total</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>9</b> |

Let's calculate the group estimates and the coefficients of competence of each expert. To do this, we will use the above algorithm for calculating group estimates and the coefficients of experts' competence (accuracy of calculation  $\varepsilon=0.01$ ).

Average object estimates  $x_i^1 = \sum_{j=1}^9 x_{ij} k^0$  the first approximation by the coefficient of compe-

tence  $k^0 = k_j^0 = \frac{1}{m} (m=9)$  is equal to:

$$x_1^1 = 0.193, \quad x_3^1 = 0.227, \quad x_5^1 = 0.128,$$

$$x_2^1 = 0.190, \quad x_4^1 = 0.119, \quad x_6^1 = 0.143.$$

The normalization coefficient  $\lambda^1 = \sum_{i=1}^6 \sum_{j=1}^9 x_i^1 x_{ij} = 1.583$ .

The values of the coefficients of competence of the experts of the first approximation (**Table 3.3**)

let's calculate by the formula  $k_j^1 = \frac{1}{\lambda^1} \sum_{i=1}^6 x_{ij} x_i^1$ , where  $j = \overline{1,9}$ .

● **Table 3.3** Competence coefficients of expert at first approximation

| Experts  | Competence coefficients |
|----------|-------------------------|
| Expert 1 | 0.111357                |
| Expert 2 | 0.109296                |
| Expert 3 | 0.110804                |
| Expert 4 | 0.109608                |
| Expert 5 | 0.116872                |
| Expert 6 | 0.111057                |
| Expert 7 | 0.110473                |
| Expert 8 | 0.109475                |
| Expert 9 | 0.111057                |

Let's calculate the group estimates of the second approximation. We can find the average

object estimates by the formula  $x_i^2 = \sum_{j=1}^9 x_{ij} k^1$ :

$$x_1^2 = 0.1934, \quad x_3^2 = 0.2274, \quad x_5^2 = 0.1279,$$

$$x_2^2 = 0.1899, \quad x_4^2 = 0.1186, \quad x_6^2 = 0.1428.$$

The result of the second step satisfies the condition of completion of the iterative process:

$$\begin{array}{r} |x_i^2 - x_i^1| \\ \hline 0,00020062 \\ 0,00015751 \\ 0,00041405 \\ 0,00037421 \\ 0,00035514 \\ 0,00004283 \\ \hline \max = 0,00041405 \end{array}$$

Since  $\max(|x_i^2 - x_i^1|) = 0,00041405 < 0,01$ , then the value of the group estimation is taken to be the average estimates of the second approximation objects, which will allow to determine and place the indices of the content and operational criterion in an ascending order according to the rank (**Table 3.4**).

● **Table 3.4** Average estimates of objects in the second approximation in EG

| Indices   | Average estimates |
|---|-------------------|
| The need for constant updating of knowledge   | 0.2274            |
| Professional mobility and adaptability in the informational society                 | 0.1934            |
| Responsibility when working with technical means                                    | 0.1899            |
| Relationship to information, objects and phenomena in the informational environment | 0.1428            |
| Critical attitude to information consumption  | 0.1279            |
| Self-esteem and reflection at the level of information contacts                     | 0.1186            |

To check the consistency of expert opinions, we calculate the dispersion coefficient of concordance. To do this, let's rank the expert estimates, calculate the sum of ranks  $r_i$ , the deviation of the sum of ranks from their overall average  $\bar{r}_i - \bar{r}$ , as well as the deviation square  $(r_i - \bar{r})^2$ . The results are presented in **Table 3.5**.

Let's calculate the coefficient of concordance for  $m=9$ ,  $n=6$ ,  $T_j=120$ ,  $S=802.83$ :

$$W = \frac{12S}{m^2(n^3 - n) - m \sum_{j=1}^m T_j^2} = 0.604771.$$

Therefore, the peer review of the above criteria is significant and thorough.

● **Table 3.5** Calculation of the dispersion coefficient of concordance

| Indices | Experts |    |   |    |    |    |    |    |    | $r_i$ | $r_i - \bar{r}$ | $(r_i - \bar{r})^2$ |
|---------|---------|----|---|----|----|----|----|----|----|-------|-----------------|---------------------|
|         | 1       | 2  | 3 | 4  | 5  | 6  | 7  | 8  | 9  |       |                 |                     |
| 1       | 7       | 6  | 7 | 6  | 6  | 7  | 6  | 6  | 7  | 58    | 7.8333          | 61.361              |
| 2       | 6       | 6  | 6 | 7  | 6  | 7  | 6  | 6  | 7  | 57    | 6.8333          | 46.694              |
| 3       | 7       | 7  | 8 | 7  | 8  | 8  | 8  | 7  | 8  | 68    | 17.833          | 318.03              |
| 4       | 4       | 5  | 4 | 5  | 2  | 4  | 4  | 4  | 4  | 36    | -14.17          | 200.69              |
| 5       | 4       | 4  | 5 | 4  | 2  | 5  | 5  | 5  | 5  | 39    | -11.17          | 124.69              |
| 6       | 4       | 5  | 5 | 5  | 4  | 5  | 5  | 5  | 5  | 43    | -7.167          | 51.361              |
| $H_j$   | 2       | 2  | 1 | 2  | 2  | 2  | 2  | 2  | 2  |       |                 |                     |
| $h_1$   | 2       | 2  | 0 | 2  | 2  | 2  | 2  | 2  | 2  |       |                 |                     |
| $h_2$   | 3       | 2  | 2 | 2  | 2  | 2  | 2  | 2  | 2  |       |                 |                     |
| $T_j$   | 30      | 12 | 6 | 12 | 12 | 12 | 12 | 12 | 12 |       |                 |                     |

The next step is to describe the results of the estimation by the experts of the level of development of social maturity of future teachers according to the criterion of "ability of informational self-development" in the control group. The results of the experts' work are presented in **Table 3.6**.

● **Table 3.6** The level of development of social maturity of future teachers according to the criterion of "ability of informational self-development" in the control group

| No.          | Indices   | Experts   |           |           |           |           |           |           |           |           | Total      |
|--------------|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
|              |   | 1         | 2         | 3         | 4         | 5         | 6         | 7         | 8         | 9         |            |
| 1            | The need for constant updating of knowledge   | 2         | 2         | 3         | 2         | 3         | 3         | 3         | 3         | 3         | 24         |
| 2            | Professional mobility and adaptability in the informational society                 | 2         | 3         | 3         | 3         | 2         | 3         | 3         | 3         | 3         | 25         |
| 3            | Responsibility when working with technical means                                    | 5         | 5         | 6         | 5         | 6         | 6         | 6         | 5         | 6         | 50         |
| 4            | Relationship to information, objects and phenomena in the informational environment | 2         | 3         | 2         | 3         | 3         | 2         | 3         | 2         | 2         | 22         |
| 5            | Critical attitude to information consumption  | 5         | 5         | 4         | 5         | 6         | 5         | 6         | 5         | 6         | 47         |
| 6            | Self-esteem and reflection at the level of information contacts                     | 2         | 3         | 2         | 3         | 3         | 2         | 3         | 2         | 2         | 22         |
| <b>Total</b> |   | <b>18</b> | <b>21</b> | <b>20</b> | <b>21</b> | <b>23</b> | <b>21</b> | <b>24</b> | <b>20</b> | <b>22</b> | <b>190</b> |

Expert research has also been carried out by the method of direct evaluation, so the results will be normalized.

The results of the normalizing are shown in **Table 3.7**.

● **Table 3.7** Normalized estimates for CG

| Indices      | Experts  |          |          |          |          |          |          |          |          | Total    |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|              | 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8        | 9        |          |
| 1            | 0.11     | 0.10     | 0.15     | 0.10     | 0.13     | 0.14     | 0.13     | 0.15     | 0.14     | 1.14     |
| 2            | 0.11     | 0.14     | 0.15     | 0.14     | 0.09     | 0.14     | 0.13     | 0.15     | 0.14     | 1.188    |
| 3            | 0.28     | 0.24     | 0.30     | 0.24     | 0.26     | 0.29     | 0.25     | 0.25     | 0.27     | 2.3733   |
| 4            | 0.11     | 0.14     | 0.10     | 0.14     | 0.13     | 0.10     | 0.13     | 0.10     | 0.09     | 1.0384   |
| 5            | 0.28     | 0.24     | 0.20     | 0.24     | 0.26     | 0.24     | 0.25     | 0.25     | 0.27     | 2.2257   |
| 6            | 0.11     | 0.14     | 0.10     | 0.14     | 0.13     | 0.10     | 0.13     | 0.10     | 0.09     | 1.0384   |
| <b>Total</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>1</b> | <b>9</b> |

Let's calculate the group estimates and the coefficients of competence of each expert. For this purpose we will use the algorithm of calculation of group estimates and coefficients of competence of experts (accuracy of calculation  $\varepsilon=0.01$ ).

Average estimates of first-approximation objects by competence factor  $k^0 = \frac{1}{9}$  for CG are equal:

$$x_1^1 = 0.1262, \quad x_3^1 = 0.2637, \quad x_5^1 = 0.2473,$$

$$x_2^1 = 0.132, \quad x_4^1 = 0.1154, \quad x_6^1 = 0.1154.$$

The normalization coefficient  $\lambda^1 = 1.7161$ . Let's calculate the values of the competence coefficients of the first approximation experts for CG (**Table 3.8**).

● **Table 3.8** Competence coefficients of experts in the first approximation for CG

| Experts  | Competence coefficients |
|----------|-------------------------|
| <b>1</b> | <b>2</b>                |
| Expert 1 | 0.114373                |
| Expert 2 | 0.1081                  |
| Expert 3 | 0.110938                |
| Expert 4 | 0.1081                  |
| Expert 5 | 0.1115                  |

**Continuation of Table 3.8**

| 1        | 2        |
|----------|----------|
| Expert 6 | 0.112517 |
| Expert 7 | 0.110059 |
| Expert 8 | 0.11046  |
| Expert 9 | 0.113953 |

Let's calculate the average group estimates of the second approximation for CG:

$$x_1^2 = 0.1264, \quad x_3^2 = 0.264, \quad x_5^2 = 0.2475,$$

$$x_2^2 = 0.1319, \quad x_4^2 = 0.1151, \quad x_6^2 = 0.1151.$$

The result of the second step satisfies the condition of completion of the iterative process:

$$\begin{array}{r} |x_i^2 - x_i^1| \\ 0,00017284 \\ 0,00013087 \\ 0,00027267 \\ 0,00026884 \\ 0,00022304 \\ 0,00026884 \\ \hline \max = 0,00027267 \end{array}$$

Since  $\max(|x_i^2 - x_i^1|) = 0,00027267 < 0,01$ , then, for the value of the group estimation, the average estimates of the second approximation objects are taken, which will allow to determine and place the indices of the criterion for "ability of informational self-development" in an ascending order according to the rank (**Table 3.9**).

● **Table 3.9** Average estimates of objects in the second approximation in KG

| Indices   | Average estimates |
|---|-------------------|
| 1   | 2                 |
| The need for constant updating of knowledge   | 0.2475186         |
| Professional mobility and adaptability in the informational society                 | 0.2475186         |
| Responsibility when working with technical means                                    | 0.1318694         |
| Relationship to information, objects and phenomena in the informational environment | 0.126422          |

**Continuation of Table 3.9**

| 1   | 2         |
|---|-----------|
| Critical attitude to information consumption                    | 0.1151098 |
| Self-esteem and reflection at the level of information contacts | 0.1151098 |

To check the consistency of the opinions of the experts on CG, let's calculate the dispersion coefficient of concordance (**Table 3.10**).

● **Table 3.10** Calculation of the dispersion coefficient of concordance

| Indices | Experts |    |    |    |    |    |    |    |    | $r_i$ | $r_i - \bar{r}$ | $(r_i - \bar{r})^2$ |
|---------|---------|----|----|----|----|----|----|----|----|-------|-----------------|---------------------|
|         | 1       | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  |       |                 |                     |
| 1       | 2       | 2  | 3  | 2  | 3  | 3  | 3  | 3  | 3  | 24    | -7.667          | 58.778              |
| 2       | 2       | 3  | 3  | 3  | 2  | 3  | 3  | 3  | 3  | 25    | -6.667          | 44.444              |
| 3       | 5       | 5  | 6  | 5  | 6  | 6  | 6  | 5  | 6  | 50    | 18.333          | 336.11              |
| 4       | 2       | 3  | 2  | 3  | 3  | 2  | 3  | 2  | 2  | 22    | -9.667          | 93.444              |
| 5       | 5       | 5  | 4  | 5  | 6  | 5  | 6  | 5  | 6  | 47    | 15.333          | 235.11              |
| 6       | 2       | 3  | 2  | 3  | 3  | 2  | 3  | 2  | 2  | 22    | -9.667          | 93.444              |
| $H_j$   | 2       | 2  | 2  | 2  | 2  | 2  | 1  | 2  | 2  |       |                 |                     |
| $h_1$   | 2       | 2  | 2  | 2  | 2  | 2  | 0  | 2  | 2  |       |                 |                     |
| $h_2$   | 4       | 3  | 2  | 3  | 3  | 2  | 4  | 2  | 2  |       |                 |                     |
| $T_j$   | 66      | 30 | 12 | 30 | 30 | 12 | 60 | 12 | 12 |       |                 |                     |

Let's calculate the coefficient of concordance for  $m=9$ ,  $n=6$ ,  $T_j=264$ ,  $S=861.33$ :

$$W = \frac{12S}{m^2(n^3 - n) - m \sum_{j=1}^m T_j} = 0.7063.$$

Therefore, the expert evaluation of the CG against the above criterion is significant and thorough.

## CONCLUSIONS

The essence of the concept of "social maturity" has been revealed, its genesis and the degree of exploration of the problem at the interdisciplinary level have been characterized.

It has been established that the phenomenon of personality maturity has not acquired a clear conceptual expression at different levels of theoretical research and within them. This is due primarily to the fact that the meaning of the concept of "integrity" is understood on different grounds, based on the specific approach of one or another author. Specificity of philosophical, sociological and psychological-pedagogical approaches to the problem of personality maturity consists, first, of finding out the essence of maturity as a special qualitative state in the development of any system and, second, in revealing the essence and social conditionality of the maturity of the individual as indicator of one's integration into the social whole.

It has been revealed that the content of the concept of "social maturity of personality" in various sciences has been revealed as a stage; moment of progress; system status; the position of the individual in society; obtaining a person's social status; realization of the need for self-improvement; the result of socialization; readiness for social self-realization; personal self-determination; multidimensional human condition, acmeform; integration characteristic of the individual; complex of personal qualities; age and socio-pedagogical characteristics of a person; integration criterion of results of training, education, development; the result of human development. Mature personality must have responsibility and activity in carrying out the activities, one's actions are consistent with the requirements of humanity, relations with themselves and other people should be harmonious. In general, such a personality is characterized by freedom of choice and independence, as well as by possessing the integrity of characteristics and outlook.

The following criteria of development of social maturity of the future teacher in conditions of updating of information culture of a society have been defined and substantiated: responsibility, social orientation, activity, ability to interact, independence, ability to informational self-development.

The pedagogical conditions for the formation of the social maturity of the future teacher were singled out.

The most favorable conditions for shaping the development of social maturity are the following:

1. As a result of planning and goal-setting of their development by comparing socio-professional expectations and achievements in the process of professional formation, taking into account initiative and responsibility.
2. Organization of quasi-professional activities of students on the basis of taking into account the essential characteristics of the phenomenon of activity in the student environment. Quasi-professional activities of students are carried out in parallel with the educational process on a continuous basis and involve constant contact of students, teachers and practitioners.
3. Participation of students of establishments of higher education in social and project activities. Social projects are becoming more widespread in the professional training of professionals involved in the field of work with people (educators, psychologists, managers, state and municipal officials and others).

The results of diagnostics of the level of development of social maturity of the future teacher according to certain criteria give grounds to claim that the substantiated and realized pedagogical conditions are effective. The most effective have been the following conditions: dialogue of



pedagogical interaction between teacher and student; involvement of students in socially useful activities and activation of students' research activities.

The study does not exhaust all the theoretical and practical aspects of the problem. The subject of a separate scientific search may be any of the identified pedagogical conditions. Further scientific exploration requires the development of a methodology for studying the social maturity of the individual and identifying opportunities for virtualization as a new path of personality development.

## REFERENCES

1. Khmurnytska, T. O. (2012). Osoblyvosti formuvannia sotsialno-profesiinoi zrilosti maibutnykh sotsialnykh pedahohiv. Zbirnyk naukovykh prats Khmelnytskoho instytutu sotsialnykh tekhnolohii Universytetu "Ukraina", 6, 169–172.
2. Beiker, K. (2005). Teoriia semeinykh sistem Miurreia Bouena: Osnovnye poniatiia, metody i klinicheskaiia praktika. Moscow: "Kogito-Tcentr", 496.
3. Petrovskii, A. V., Iaroshevskii, M. G. (Eds.) (1990). Psikhologiiia. Slovar. Moscow: Politizdat, 494.
4. Ollport, G. (1998). Lichnost v psikhologii. Moscow: "KSP+", 345.
5. Abulkhanova-Slavskaiia, K. A. (1991). Strategiiia zhizni. Moscow: Misl, 299.
6. Safin, V. F. (1986). Psikhologiiia samoopredeleniia lichnosti. Sverdlovsk, 142.
7. Kvetnoi, M. S. (1974). Chelovecheskaia deiatelnost: sushchnost, struktura, tipy (Sotsiologicheskii aspekt). Saratov: Izd-vo Saratovskogo universiteta, 223.
8. Rapatceovich, E. S. (2005). Pedagogika: Bolshaiia sovremennaia entsiklopediia. Minsk: Sovrem. slovo, 720.
9. Komar, T. V. (2016). Sotsialna zrilist osobystosti yak chynnyk stanovlennia profesiinoi zrilosti psykhologa. Problemy suchasnoi psykhologii, 34, 200–210.
10. Andreenkova, N. V. (1970). Problema sotsializatsii lichnosti. Sotsialnye issledovaniia, 3, 38–52.
11. Kogan, L. N. (1985). O poniatii "sotsialnaia zrelost". Formirovanie sotsialnoi i professionalnoi zrelosti studentov. Sverdlovsk, 3–12.
12. Lebedik, N. P. (2012). Indeks sotsialnoi zrelosti uchenika kak pokazatel rezulativnosti vospitaniia. Vospitatelnaia rabota v shkole, 6, 66–71.
13. Komar, T. V. (2014). Social-psychological space as cause for person's professional maturity. Visnyk Natsionalnoi akademii Derzhavnoi prykordonnoi sluzhby Ukrainy, 2. Available at: [http://nbuv.gov.ua/UJRN/Vnads\\_2014\\_2\\_17](http://nbuv.gov.ua/UJRN/Vnads_2014_2_17)
14. Kharchev, A. G. (1990). Sotsiologiiia vospitaniia: (O nekotorykh aktualnykh sotsialnykh problemakh vospitaniia lichnosti). Moscow: Politizdat, 222.
15. Emelianova, M. A. (2005). Stanovlenie professionalnoi zrelosti sotsialnogo pedagoga v obrazovatelnom protsesse vuza. Moscow: RGB, 354.
16. Kameneva, E. G. (2004). Razvitie sotsialnoi zrelosti studentov pedagogicheskogo vuza. Orenburg, 184.

17. Soldatchenko, A. L. (2017). Pedagogical conception of formation of social maturity of students of institutes of higher education. *Sovremennaiia Vysshiaia Shkola: Innovatsionnyi Aspekt*, 2, 114–121. doi: <https://doi.org/10.7442/2071-9620-2017-9-2-114-121>
18. Maksimova, V. N. (1994). Put k sotsialnoi zrelosti. *Narodnoe obrazovanie*, 7, 36–40.
19. Vershlovskii, S. G. (1996). *Lichnost, semia, shkola*. Saint Petersburg: UPM, 134.
20. Khmurinska, T. O. (2011). Naukovi aspekty analizu sutnisnikh kharakteristik sotsialnoprofesiinoi zrilosti maibutnykh sotsialnykh pedagogiv. *Visnik Zaporizkoho natsionalnogo universytetu. Pedagogichni nauky*, 3 (16), 174–179.
21. Khmurynska, T. O. (2012). Osoblyvosti formuvannia sotsialno-profesiinoi zrilosti maibutnykh sotsialnykh pedahohiv. *Zbirnyk naukovykh prats Khmelnytskoho instytutu sotsialnykh tekhnolohii Universytetu "Ukraina"*, 6, 169–172.
22. Shkolna, M. S. (2016). Vyznachennia sutnosti poniattia "sotsialna zrilist" u pedahohitsi. *Naukovyi visnyk Natsionalnogo universytetu bioresursiv i pryrodokorystuvannia Ukrainy. Seria: Pedahohika, psykholohiia, filosofii*, 253, 322–327.
23. Haleta, Ya. V. (2018). Sotsialna zrilist osobystosti v umovakh onovlennia informatsiinoi kultury suspilstva. *Kharkiv: Machulin*, 392.
24. Hanzha, O. V. (2011). Sotsialno-profesiina zrilist maibutnoho vchytelia istorii. *Kirovohrad: PP "Tsentr operatyvnoi polihrafii "Avanhard"*, 78.
25. Orlova, V. V. (2009). Sotsialnaia zrelost molodezhi: sotsialno-psikhologicheskii aspekt. *Mezhdunarodnyi zhurnal prikladnykh i fundamentalnykh issledovani*, 5, 124–125.
26. Slobodchikov, V. I. (1995). *Psikhologiiia cheloveka*. Moscow: Shkola-Press, 384.
27. Yavorska, H. Kh. (2005). Sotsialno-profesiina zrilist kursantiv vyshchykh zakladiv osvity MVS Ukrainy. *Odesa: PLASKE ZAT*, 408.
28. Kon, I. S. (1999). *Sotsiologicheskaiia psikhologiiia*. Moscow: Moskovskii psikhologo sotsialnyi institut; Voronezh: Izdatelstvo NPO "MODEK", 560.
29. Omarov, E. Z. (2011). Osobennosti lichnostnoi zrelosti uspeshnykh i neuspeshnykh predprinimatelei. *Tiumen*, 196.
30. Bozhovich, L. I. (2008). *Problemy formirovaniia lichnosti*. Moscow: Direkt-Media, 612.
31. Leonov, N. I., Glavatsky, M. M. (2014). Socio-psychological Maturity of the Person: Integrative Approach. *Izvestiia SGU*, 14 (1), 55–60.
32. Radul, V. V. (2002). Sotsialno-pedahohichna zrilist. *Kirovohrad: PVTs TOV "Imeks LTD"*, 248.
33. Vygotskii, L. S.; Davydova, V. V. (Ed.) (1991). *Pedagogicheskaiia psikhologiiia*. Moscow: Pedagogika, 480.
34. Fedchenko, Yu. O. (2014). Obgruntuvannia problemy samorozvytku mahistra vyshchoi shkoly. *Visnyk Cherkaskoho universytetu. Seria: Pedahohichni nauky*, 17, 118–122.
35. Rubinshtein, S. L. (2002). *Osnovy obshchei psikhologii*. Saint Petersburg: Piter, 720.
36. Maksymenko, S. D. (2004). *Zahalna psykholohiia*. Vinnytsia: Nova knyha, 704.
37. Andreev, V. I. (1998). *Pedagogika tvorcheskogo samorazvitiia: Innovatsionnyi kurs. Book 2*. Kazan: Izd-vo kazanskogo un-ta, 230.

38. Hlavatska, O. L. (2010). Osnovy samovykhovannia osobystosti. Vyshcha shkola, 1, 5–14.
39. Kuzikova, S. B. (2012). Empyrychne doslidzhennia samorozvytku sub'iektnoi diialnosti. Psykholohichni nauky: problemy i zdobutky. Tematychnyi vypusk "Problemy empyrychnykh doslidzhen u psykholohii", IV (1 (6)), 132–139.
40. Faizullin, R. N. (2003). Samopoznanie i samorazvitie uchashchegosia kak sostavnaia chast tcelostnogo pedagogicheskogo protsessa. Cheboksary, 207.
41. Leontev, A. (1960). O formirovanii sposobnostei. Voprosy psikhologii, 1, 7–17.
42. Ortega-i-Gasset, X. (1991). O sportivno-prazdnichnom chuvstve zhizni. Filoskie nauki, 12, 137–152.
43. Ball, G. O. (2008). Orientiri suchasnogo gumanizmu v suchasnii osvittii, psikhologichnii sferakh. Zhitomir: Volin, 232.
44. Kostyuk, H. S. (1976). Vikova psykholohiia. Kyiv.
45. Zhestkova, N. A. (2013). Metodologicheskie podkhody k issledovaniuu sotsialnoi zrelosti i sotsialnogo infantilizma lichnosti. Vestnik Permskogo universiteta, 2 (14), 128–135.