ECOLOGY OF PROFESSIONAL SELF-AWARENESS FORMATION OF FUTURE PSYCHOLOGISTS

The article elucidates the peculiarities of the professional self-awareness formation of future psychologists in the professional training process in a higher education institution (hereinafter, HEI). On the basis of the conducted empirical research, it was clarified such peculiarities of the formation of professional self-awareness structural components of future psychologists as cognitive, emotional, motivational, and operational during training in HEI. The materials present the main results of mathematical and statistical analysis and interpretation of research results. The revealed trends indicate that the normative process of professional development in HEI is characterized by qualitative and gradual changes in the professional self-awareness of higher education students. In particular, motivational and empathic components are identified as the main components of the studied phenomenon.

Moreover, to the presented results of empirical research, in the context of the ecological approach, the problem of social and psychological determinants of the formation of future psychologists' professional self-awareness is highlighted. The identification and inclusion of such determinants in the educational process organization will contribute to the actualization of ecological and psychological mechanisms of students' professional and personal formation. Among the general recommendations for the environmentalization of the professional educational environment in the HEI, the article proposed the practice of mentoring junior students by senior students on the basis of the "equal to equal" principle, as well as providing intervision and supervisory support for future psychologists at the stage of higher professional education.

Key words: self-awareness, professional self-awareness, the structure of professional self-awareness, professional self-concept, the self-image of a psychologist, future psychologists, ecological approach.

Formulation of the problem. Research in the field of environmental psychology is gaining special relevance today in connection with the search for effective ways out of the environmental crisis, which brings the following problems to the fore: 1) research on environmental awareness, in particular, professional awareness and self-awareness, by identifying the peculiarities of human perception of the environment and selection of factors significant for the subject of its unfavorable development; 2) identifying the motivation of environmental behavior, which reveals the reasons for persons' actions responsible for causing damage to the environment; 3) analysis of patterns of psychological consequences of the environmental crisis (mental health disorders, increase in crime, demographic changes, etc.).

We are most interested in the first aspect of research in the field of ecological psychology. Modern transformational changes in society and traumatic challenges exacerbate the problem of
professional formation and development of specialists in socionomic professions. Particular attention is drawn to the issue of the ecological friendliness of the psychologists' work, in particular, such aspects as the observance of high ethical standards and continuous professional improvement, the prevention of emotional and professional burnout in the conditions of intensive work with clients' traumatic experience. In this context, it is appropriate to single out the ecological problem of the professional self-awareness formation of future psychologists as a key link in their professionalization.

**Analysis of recent research and publications.** The problem of self-awareness has always attracted considerable interest from representatives of well-known foreign and domestic scientific currents and approaches. Therefore, the development of personal self-awareness is one of the key ideas of the psychoanalytic theory of S. Freud, who looked at it in the context of the identification and introspection of the parental self-identity; identity (E. Erikson); regulation, control, and efficiency (A. Bandura); independence of thinking and behavioral self-regulation (G. Hall); striving for self-expression and self-realization (R. Kheviakhkheps); the development of cognitive processes (J. Piaget); the inner potential of the personality, its ability to purposefully interpret the present, which includes both the future and the past (F. Perls); formation of the "I-concept" (R. Burns, C. Rogers) [2][6][10][11][12].

Problems of professional self-awareness are presented in the works of such domestic scientists as V. Haluziak, O. Moskalenko, V. Rybalka, V. Petrenko, E. Pomytkin, Yu. Shvalb, V. Yurchenko, and others. Most researchers tend to see this phenomenon as self-awareness in the professional activity course. Professional self-awareness is, on the one hand, a process by which a person recognizes themselves and relates to themselves as a representative of the relevant profession, on the other hand, it is the result of self-awareness - a formed relatively persistent complex of ideas about oneself as a specialist, professional "Self-concept".

Other scientific researches are directly devoted to the study of the professional self-awareness development in student life, where the subject of analysis is the influence of educational and professional activities on future specialists' professional and personal development in socionomic professions (I. Bulakh, L. Holovei, O. Kokun, L. Dolynska, L. Orban-Lembryk, and others).

A. Derkach and O. Moskalenko in their studies singled out such professional self-awareness functional and structural components as 1) cognitive, which is realized in self-knowledge; 2) motivational, realized in self-actualization; 3) emotional, realized in self-understanding; 4) operational, implemented in self-regulation.

In modern psychological and pedagogical science, the issue of developing future psychologists' professional self-awareness is mostly considered in the context of their general professional formation (O. Akimova [Error! Reference source not found.], V. Haluziak [3], V. Pedorenko, V. Shtyfurak [9], Z. Karpenko [4], A. Kolomiets [5], N. Lazarenko [7], O. Meshko & H. Meshko [8], and others). At the same time, there is a need to clarify the peculiarities of the structural components and socio-psychological determinants of the professional self-awareness formation of future psychologists, the identification and consideration of which in the professional higher education organization will contribute to the actualization of the ecological and psychological mechanisms of students' professional and personal formation.

**The purpose of the article** is to clarify the peculiarities of the formation of the professional self-awareness structural components of future psychologists in the ecological approach context.

**Outline of the main material.** After conducting a theoretical analysis of the phenomenon of professional self-awareness, we proceeded to diagnose the formation of its key structural components during the process of professional training in higher educational institutions (hereinafter, HEI).

An empirical study of the psychological characteristics of the formation dynamics of the professional self-awareness structural components was conducted with students of the first and fourth courses in the field of Psychology at Vinnytsia Mykhailo Kotsiubynsky State Pedagogical University. The research was carried out with students from 2016 to 2022. The final sample consisted of 360 respondents, with 90 individuals from each course, including 242 females and 118 males.

Analyzing the degree of discrepancy between the Ideal Self and the Real Self using N. Kolmogortseva's technique "Psychologist's self-image", which indicates the level of development of the professional self-awareness cognitive component among future psychologists, we obtained the following results, as depicted in Fig 1.

For the convenience of data processing, we have identified three main levels to determine the indicator: low, moderate, and high levels.
According to the diagnostic results, it was found that in the first year, 33% of the respondents - future psychologists, have a low level of cognitive component development (Real Self is significantly distant from Ideal Self), 43% have an average level (Real Self is distant from Ideal Self), which constitutes the majority. A high level of cognitive component development of professional self-awareness is observed in 24% of students. Consequently, among fourth-year students, a high level predominates (Real Self approaching Ideal Self in 57%), 33% of students have an average level (Real Self is distant from Ideal Self), and only 10% of students have a low level of cognitive component development where Real Self is far from Ideal Self. These results are confirmed by the "Awareness" scale results using another diagnostic method, "Professional Readiness" by A. Cherniavska, in which 63% of first-year students and 47% of fourth-year students have a predominance of average level development, highly developed awareness in 10% and 47% of first and fourth-year students respectively.

The average level of cognitive component development of professional self-awareness among first-year future psychologists indicates the formation of a positive attitude towards professional activities. However, there is still insufficient understanding of their role functions and their place in the profession. Therefore, the "Professional Real Self" is in a constant process of formation and self-understanding as a future professional. The ideal self-image of a professional may be more attainable, as first-year students tend to overestimate their competence, as evidenced by a significant percentage of students with a Real Self approaching the Ideal Self (24%). The professional knowledge itself remains primarily theoretical and has not become personally meaningful. Students have an average level of formation of the mentioned properties necessary for solving specific educational and professional tasks.

However, fourth-year students predominantly have a high level of cognitive component development of professional self-awareness, characterized by an adequate assessment of their professional Real Self and Ideal Self, as well as a tendency to reduce the discrepancy between them. This is achieved through the presence of knowledge among future psychologists about the purpose, role, and place of the profession in modern society, as well as the necessary professional knowledge.

Analyzing the operational component of professional self-awareness among future psychologists using A. Cherniavska’s "Professional Readiness" technique, we obtained the following results, presented in Fig. 2 and 3.
Based on the obtained results, we can conclude that for the majority of students, both in the first and fourth years (56% and 50% respectively), a general average level of professional readiness is observed. This indicates an average development of the operational component of professional self-awareness among students in these courses.

The indicator of the "Autonomy" scale shows that 50% of first-year students and 53% of fourth-year students have an average level of development. In the first year, 40% of students have a low level of autonomy, but in the fourth year, it is observed in only 7% of students. Additionally, only 10% of first-year students exhibit a high level of autonomy, compared to 40% of fourth-year students who demonstrate a high level of autonomy.

The results of the study on the "Autonomy" scale are supported by the data obtained from the A. Rean's questionnaire "Motivation for Success and Fear of Failure." In the first year, 43% of future psychologists exhibit "Fear of Failure" and 33% have "Hope for Success" motivation. In the fourth year, 40% of students are motivated by "Hope for Success," and another 40% of students have an undefined motivational pole.
Therefore, the average level of autonomy development among first-year students may indicate a lack of independence in their actions and behaviors. Students may not yet demonstrate sufficient initiative and proactivity in realizing their potential, as well as a sustained professional interest. Their desire to fulfill their professional duties primarily arises in situations that do not carry the risk of failure.

Students in the fourth course are characterized by a higher level of aspiration toward realizing their life potential, self-improvement, and self-development. In other words, 4th-year future psychologists are becoming aware of the significance of personal qualities for successful professional activity.

On the "Awareness" scale, 63% of 1st-year students and 47% of 4th-year students have an average level of development. Highly developed awareness is present in 10% of 1st-year students and 47% of 4th-year students. Additionally, 27% of 1st-year students and 7% of 4th-year students have a low level of awareness as a component of professional readiness.

The mentioned data can be compared to the indicator of the professional self-discrepancy between the Real Self and Ideal Self according to N. Kolmogortseva's "Psychologist's self-image" technique. According to this methodology, in the 1st year, 43% of students have a Real Self that is distant from their Ideal Self, while among 4th-year students, the Real Self is predominantly close to the Ideal Self (57%).

Accordingly, we can conclude that the awareness of 1st-year students is limited by their perception capabilities. At an average level, students are merely accumulating information about the future profession of a psychologist, but they have very few opportunities to actively participate in psychological work. They are faced with the pressing question of finding reliable and practical sources of knowledge that will allow them to obtain accurate and practical information about professional activities, which will ultimately enable them to realize themselves as psychologists.

We can also observe a positive trend among 4th-year students, where awareness regarding the profession is found at high and average levels. This indicates that to attain professional maturity, future psychologists are not only accumulating professionally relevant information but also actively seeking it to align the specificity of their personality with the demands of the professional field. In other words, by the 4th year, students are capable of more adequately assessing their chosen profession and correlating their personal qualities with its requirements.

According to the "Emotional Attitude" scale, an average level is observed among both 1st-year and 4th-year students (47% each). A low level is present in 40% of 1st-year students and 10% of 4th-year students, while a high level is found in 13% of 1st-year students and 43% of 4th-year students.

The corresponding results among students from both courses can be observed by comparing them with the results of the "Anxiety" scale of H. Eysenck's "Self-Assessment of Mental States" questionnaire. It indicates that the average level of anxiety predominates among both 1st-year and 4th-year students, with percentages of 57% and 70% respectively. Additionally, the results from the "Emotional Attitude" scale can be correlated with the results of the "Frustration" scale of the same H. Eysenck's questionnaire. The results indicate that 50% of 1st-year students have an average level of frustration, 33% have a high level, and 17% have a low level. Among 4th-year students, there is an equal expression of low and average levels of frustration (40% each), while 20% exhibit a high level.

Emotional attitude plays an important role in the process of making various crucial life choices for future psychologists, especially regarding their further professional path, psychological orientation, and so on. At the average level, this component is manifested in a generally positive attitude towards professional activity, and life optimism tends to be more resilient than pessimistic tendencies. Despite difficulties, students are capable of overcoming negative and frustrating situations. At a high level of development, this component becomes one of the most significant indicators of internal professional maturity.

Summarizing the results obtained using the "Professional Readiness" methodology (by A. Cherniavskaya), which allowed us to explore the operational component of professional self-awareness, we can observe an average level of development among 1st-year future psychologists and a significant portion of high-level development among 4th-year future psychologists.

The analysis of the professional self-awareness motivational component in future psychologists of the 1st and 4th year (according to A. Rean’s questionnaire "Motivation of success and fear of failure") showed the following results, presented in Fig. 4.
As we can observe from the histogram of the "Fear of Failure" scale, which reflects the low level of development of the professional self-awareness motivational component, such manifestation is present in 43% of 1st-year students and 20% of 4th-year students. In 24% of 1st-year students and 40% of 4th-year students, the motivational pole is unpronounced and indicates an average level of the motivational component. A high level, expressed by the "Hope for Success" scale, is observed in 33% of 1st-year students and 40% of 4th-year students.

The results obtained for the "Fear of Failure" scale are consistent with the results of the "Frustration" scale from H. Eysenck’s "Self-Assessment of Mental States" questionnaire. Among 1st-year students, the average level is observed at 50%, a high level at 33%, and a low level at 17%. Among 4th-year students, both low and average levels of frustration are equally expressed (40% each). According to the results of the "Anxiety" scale from H. Eysenck’s questionnaire, the average level prevails in both 1st and 4th-year students, with 57% and 70% respectively. The results of the "Motivation for Success" scale are consistent with the results of the "Autonomy" scale from A. Cherniavska’s "Professional Readiness" methodology. Thus, 50% of 1st-year students and 53% of 4th-year students exhibit an average level of development, while 40% of 1st-year students have a low level, which is only observed in 7% of 4th-year students. However, 10% of 1st-year students show a high level of autonomy development, compared to 40% of 4th-year students.

The study of the professional self-awareness motivational component revealed a low level of its development in 1st-year students, which is manifested in the predominance of the "Fear of failure" motivation among future psychologists, i.e., they try, first of all, to avoid punishment, condemnation of classmates and teachers. Even at the beginning of their work, future psychologists are characterized by a certain apprehension about the results. They show increased anxiety and a lack of confidence in their own capabilities. At the same time, they are quite responsible for the performance of activities and try to do everything correctly and rationally.

Most 4th-year future psychologists are characterized by the "Motivation to achieve success" tendency, that is, in general, they are directed to achieve constructive, significant, and positive results in their studies. The basis of individual activity is the hope for success and the need to achieve success. Such future psychologists are characterized by self-confidence, purposefulness, and activity.

In the process of researching the professional self-awareness emotional component in future psychologists according to the questionnaire of H. Eysenck’s "Self-assessment of mental states", we obtained the results shown in Fig. 5 and 6.
Fig. 5. The level of formation of the professional self-awareness emotional component in the 1st-year future psychologists (according to H. Eysenck’s «Self-assessment of mental states» questionnaire)

Fig. 6. The level of formation of the professional self-awareness emotional component in the 4th-year future psychologists (according to H. Eysenck’s «Self-assessment of mental states» questionnaire)

According to the data presented in Figures 5 and 6, it can be observed that the average level of anxiety prevails in both 1st and 4th-year students, with 57% and 70% respectively. Among 1st-year students, there are no students with low anxiety (0%), while among 4th-year students, 13% exhibit low anxiety. High anxiety is observed in nearly half of the 1st-year students (43%) and in 17% of the 4th-year students. Anxiety is an expression of emotional distress associated with a sense of danger or failure anticipation. Any instability or disruption in the normal course of events can lead to the development of anxiety.

The level of frustration according to the "Frustration" scale among 1st-year students is average (50%), 33% – high, and 17% – low. Fourth-year students have an equally expressed low and medium level of frustration (40% each), and 20% have a high level of frustration. In students, frustration manifests itself in oppressive tension, anxiety, a sense of hopelessness, and despair that arise in situations that an individual perceives as an inevitable threat to the goal achievement that is important to them, the realization of a certain need. The strength of frustration depends both on the degree of significance of the blocked action and on its proximity to the defined goal. The reaction to the state of frustration can be the following main types of actions: "withdrawal" from the real situation into the realm of fantasies, delusions, and daydreams; the emergence of an internal tendency to aggressiveness, which is either
delayed, appearing in the form of irritability, or openly breaking out in the form of anger; general "regression" of behavior, i.e., the transition to easier and more primitive ways of acting, frequent change of occupations, etc. As a result of frustration, residual self-doubt is often observed, as well as a fixation on the methods of action used in the situation of frustration.

The given results on the scales were also confirmed by the results of the "Fear of failure" scale (A. Rean's "Motivation of success and fear of failure" questionnaire), which expresses a low level of development of the professional self-awareness motivational component among 1st-year students (43%) and the "Emotional Attitude" scale (A. Cherniavska’s «Professional readiness» methodology), according to which the average level of its development was found in students of the first and fourth years (47% each), low – in 40% of students of the 1st and 10% of students of the 4th year, and high – in 13% and 43% of students of the 1st and 4th courses.

**Results.** The research results allowed us to identify different levels of professional self-awareness formation among future psychologists of 1st and 4th courses. A statistical analysis of the obtained results was also carried out using the SPSS Statistics 24 computer program for statistical data processing. The data obtained during the calculations indicate the presence of a correlation between the selected scales. The results of the pairwise correlation of the 1st-year students' sample indicators revealed the following significant relationships: the value of the scale "difference between the Professional Ideal Self and the Real Self" according to the method "Psychologist's self-image" by N. Kolmogortseva has a direct correlation with the scales "Autonomy" (empirical = 0.59698**, with p < 0.01), "Information" (empirical = 0.899213**, with p < 0.01), "general level of professional readiness" (empirical = 0.939888*, with p < 0.01) according to the "Professional Readiness" technique by A. Cherniavska, the "Emotional Attitude" scale according to the same technique with the "Anxiety" scales (empirical = 0.906878**, at p < 0.01), "Frustration" (empirical = 0.780300**, at p < 0.01) according to H. Eysenck’s «Self-assessment of mental states» questionnaire and the scale of "Motivation" (empirical = -0.405240 **, at p < 0.01) according to A. Rean's "Motivation for success and fear of failure" questionnaire. A direct correlation indicates that 1st-year future psychologists have a low and average level of professional self-awareness development as a whole, as well as its individual components. Such results are, first of all, connected with the formation of guidelines for professional activity, but with insufficient awareness among students of those properties of a psychologist's personality, which are professionally significant; do not clearly record their presence in themselves, have an average level of formation of the named properties; in solving specific educational and professional tasks, they occasionally show a tendency to reflection and empathy; motives of self-improvement are not always have professional nature.

The results of the correlation of the fourth-year students' sample indicators revealed the following significant relationships: the value of the scale "difference between the Professional Ideal Self and Real Self" according to the "Psychologist's self-image" technique has a direct correlation according to the "Autonomy" scales (empirical = 0.881604 **, at p < 0.01), "Information" (empirical = 0.842262 **, at p < 0.01), "general level of professional readiness" (empirical = 0.900430 **, at p < 0.01) according to the "Professional Readiness" technique, the "Emotional Attitude" scale according to the "Professional Readiness" technique with the "Anxiety" scales (empirical = 0.906878**, at p < 0.01), "Frustration" (empirical = 0.780300**, with p < 0.01) according to the questionnaire of H. Eysenck’s «Self-assessment of mental states» questionnaire and the scale of "Motivation" (empirical = -0.456753 **, with p < 0.01) according to the "Motivation for success and fear of failure" questionnaire by A. Rean. A direct correlation indicates that fourth-year future psychologists have a high and average level of professional self-awareness development both in general and in its individual components, in particular.

**Conclusions.** On the basis of the conducted empirical research, we can state that the low level of professional self-awareness in first-year students is caused by the lack of adequate guidance on professional activity; future psychologists are able to identify personality traits that are professionally significant but are not able to connect them with personal characteristics, and have a low level of these traits formation; they do not show a tendency to reflection and empathy while solving educational and professional tasks; self-improvement motives of first-year students are weakly related to their professional self-awareness.

The level of professional self-awareness development among fourth-year students is much higher since they already have a more clearly formed guideline for professional activity. They are aware of certain properties that arise on the basis of professional knowledge about the professional self-awareness components, in particular, the critical assessment of their presence in themselves and its implementation in the process of professional activity is more pronounced. Most fourth-year students are characterized by a tendency to reflection and empathy and a positive professional self-concept. The leading motive for
self-improvement is an understanding of the importance of personality traits for future professional activity.

The identified trends indicate that during the normative professional development in HEI, there is a gradual qualitative development of future psychologists' professional self-awareness. The most significant components of this integrated phenomenon are determined by the features of the motivational sphere of higher education seekers and the manifestation of empathy, which is also a key professionally important quality for future psychologists.

Among the ecological factors in the educational environment of HEI that should be strengthened in the professional training of first-year psychology students, the following are noteworthy. First is the involvement of first-year students in a greater number of practical and goal-oriented activities. Second, is the organization of interaction between junior and senior courses of study, which would be beneficial through the practice of mentoring junior students by senior students. This, in turn, would contribute to the formation of a more objective self-image in future professional activities. In this context, creating a cooperative space based on the principle of "equal to equal" is ecologically significant, where students from different courses of study can collaboratively solve problem tasks, engage in scientific research activities, and acquire practical skills and abilities.

Particularly relevant is the organization of supervisory and intervision student groups, which will ensure the ecological development of future psychologists in general and foster an atmosphere of cooperation and exchange of experience not only among students but also among HEI faculty members.

**Prospects for further research in this direction.** The development and implementation of ecological techniques and methods for providing psychological support in the development of professional self-awareness among future psychologists is the subject of our further scientific research.

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**References**


