Original Article

Influence of functional ego-states of lecturers and students at a higher school on the system of their individual value priorities

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Abstract

In the research of individual value priorities of the participants of the university educational process, there were applied the principles of the theory of transactional analysis. This allows developing effective scenarios of educational process quality optimization, which take into account the needs and requirements of its participants, depending on the nature of the development of the value structure of all educational process participants in higher education and the qualitative level of functioning of the characteristics of their personal structure (egostructure). The character of interdependence of individual value priorities of the participants of educational process in higher school with the characteristics of their personal structure is investigated. The purpose of the research was to find a causal connection between the level of the development of the system of individual value priorities of lecturers and applicants of higher education and the level of functioning of the characteristics of their personal structure - the dominant ego-states. The results of the research of lecturers and students of several higher education institutions of Ukraine (n = 480) showed that their dominant ego-state during the pedagogical transaction in the educational process acts as a predictor of the development of such integral value structures of their personality as: "value disposition of transcendence", "value disposition of achievement", "value disposition of conservatism". Also, the true character of the differences in the level of the development of integral value dispositions among lecturers and applicants of higher education was revealed, that confirmed the socio-educational character of its determination. Thus, it was established, that both the dominant ego-state and the socio-educational status of the participants of educational process in higher school are the predictors of the development of their integral value system.

Key words: dominant functional ego-state, ego-structure of the personality, individual value priorities, lecturers and students of higher education establishment.

Introduction

The experience of using the Eric Berne's concept of the transactional analysis (Berne E., 1961) and the Schwarz's value methodology (Schwartz Value Survey; Schwartz, 1992; Schwartz, 1996) as the theoretical and methodological means of psychological comprehension and cognition of various aspects of personality behavior is specified, first of all, in the direction of learning the peculiarities of its communicative potential manifestation, factors of the development of its value orientations system, mechanisms and regularities of interpersonal interaction in a group, etc. However, the integration of these tools into a single conceptual and research framework and the implementation of new psychological and pedagogical research on this basis is still a little-known fact. It is believed that the use of conceptual and methodological capabilities of above-mentioned approaches in a single research key will provide wider opportunities for a complex representation and comprehensive study of the interdependence between the level of the development of the system of individual value priorities of the participants of educational process in higher school and the level of functioning of the characteristics of their personal structure (ego-structure).

It should be noted that Berne's transactional approach has found its use not only in psychological practice and psychotherapy, but also in other branches of science. To understand this, it's suffice to analyze the work of T. Ohlsson (Ohlsson, 2010), that references to more than 300 research investigations on transactional analysis issues. In the aspect of investigating the relevant issue, researches based on the ideas and principles of transactional analysis in education and for education deserve special attention. In particular, many researchers (Lacy, 2012; Lankton and Brown, 1981; Lankton, 1981) note the synergy between cognitive learning and transactional analysis, emphasizing the role of the psychological level of communication in the transactional process. B. Lewandowska (Lewandowska, 2009) emphasizes on the importance of designing, selecting and

applying by a teacher the relevant psychological approaches to each individual pedagogical situation for the effective communication with students. A number of scholars directly point out (Kramer, Wieczorek, 1997) that one of the most effective concepts, the application of which will greatly increase the efficiency of the transfer of educational content in the process of communication between the university lecturer and students and bring their life positions closer, is a transactional analysis. It should be noted that the question of applying the principles of transactional analysis in the context of studying the peculiarities of educational activity and the characteristics of the behaviour of the participants of educational process has become the focus of many scholars' research works (Barrow, Bradshaw & Newton, 2001; Hellaby, 2004; Shotton, 2008; Stewart & Joines, 1987, Stuart & Alger, 2011). Scientific investigations of many other researchers (Kenney, Lyons, 1979; Jagiela, Sarnat-Ciastko, 2015; Fettgather, 1987; Finlay, 2016) have also become important in determining the conceptual performance of transactional approach for the analysis and prediction of the behavior of the participants of educational process.

The generalization of the results of the carried out theoretical-empirical explorations and the understanding of own experience while studying this problem has allowed to distinguish two research lines. Within the framework of the first line of the research, the dominant functional conditions of the participants of educational process in higher school were identified - lecturers of higher education institutions and applicants of higher education, as well as their individual value priorities were studied.

Strengthening of the conceptual position of this research within the framework of the implementation of the first research line was provided by the experience of teachers (Speck O.) and psychologists (Schwartz, 1994; Schwartz, 1996; Schwartz et al., 2001), dealing with issues of identifying of the lecturers and students' individual value priorities, their comparison and determination of both value "closeness" and certain differences. Those were the changes in the hierarchy of education values, starting with the generation of the sixties to the "generation Z", that caused changes in the behavior of both student youth and lecturers, which, in turn, led to a change in the "spirit" and principles of educational methodology. Instead of a repressive educational paradigm, a liberally oriented educational tradition came to the fore, that deprived of rigid educational restrictions and considerably expanded the limits of personal freedom. In this situation, we can talk about getting a value autonomy and independence by the lecturers and students in the new educational conditions, and hence the possibility of developing new ways of forming academic knowledge and acquiring professional skills.

The axiological measurement of educational activity and the peculiarity of the value structure of the participants of educational process have been the subject of theoretical and empirical research for a long time (Bardi & Schwartz, 2003; Kiriakova, 2004; Kluckhohn, 2000; Leontyev, 2003; Mariański, 1990; Semkiv, 2010; Slastenin, 2003; Trukhan, 2010). Taking into account a little-known fact concerning the data of the research of the peculiarities of the value structure of lecturers and applicants of higher education, that interact in the educational and cultural space of higher school in the new socio-economic conditions of the development in the 21st century (Ignell et al., 2019), the study of their individual value priorities can become an important and relevant aspect of the research.

The second line of the study has provided the determination of the nature of the relationship between the level of the development of individual value priorities of the participants of educational process in higher school and the level of functioning of their personal structure (ego-structure) characteristics. According to the results of the researches carried out by western colleagues, the representative empirical facts have been obtained. They show the determinacy of the process of pedagogical transaction in a higher school by the dominante ego-states ("Parent", "Adult", "Child") of its participants – lecturers and applicants of higher education (Jagiela, 2018; Wieczorek, 2015). On the basis of this, the assumption about the interdependence between the dominant functional ego-states of the participants of educational process in higher school and their certain personal and conative characteristics was made. It is obvious that the educational process as a permanent interaction (transaction) between all its participants, especially in higher school, presupposes the constant exchange of information, experience and values, at least, within the social dyad of "a lecturer – a student". If to consider the formation of a stable core of value priorities of a person as the main goal of the educational process in a higher school, besides learning and acquiring skills, it becomes obvious that the conceptual character and level of development of the value structure of the personality of the participants of educational process - both the lecturer and the applicant of higher education are likely to be determined by their current role positions or by the dominant functional ego-states.

So, taking into account the lack of the theoretical and empirical generalizations in the sphere of application of principals of the transactional analysis in the context of study of qualitative structure of individual value priorities of the participants of educational process in higher school in the new socio-economical conditions of the development, the organization and realization of this scientific investigation have become available.

Taking into consideration the main ideas of the theory of transactional analysis, confirmed by the results of the research of individual value priorities of the participants of educational process in higher school, will allow in future to predict the level of academic successfulness of higher education applicants due to the character of the development of value structure of all participants of educational process and qualitative level of functioning of their individual structure's characteristics (ego-structure); to develop effective scenarios for the

optimization of quality of the educational process in higher school; to ensure the effective functioning of the higher education system in accordance with the requests and needs of its participants.

Problems of Research

The main problems that were being solved in this research are:

- 1) Identification of the dominant functional ego-states and the level of the development of individual value priorities of the participants of educational process in higher school - lecturers of the institution of higher education and applicants of higher education.
- 2) Studying of the relationship of individual value priorities of lecturers of the institution of higher education and applicants of higher education with the characteristics of their personal structure - the dominant functional ego-states.

Research Focus

The purpose of the research is to study the nature of the interdependence of individual value priorities of the lecturers of the institution of higher education and applicants of higher education with their dominant functional ego-states in the process of the pedagogical transaction in higher school.

Material and methods

General Background

This investigation has become one of the directions of the implementation of a comprehensive research program on the study of the value priorities of the personality in the new socio-economic conditions of the development. Within the framework of the empirical investigation, two research lines were identified. The first line of the research was aimed at identifying of the dominant functional ego-states and the level of the development of individual value priorities of the participants of educational process in higher school - lecturers and applicants of higher education.

It allowed to differentiate all representatives of the above-mentioned categories into three groups due to the dominance of one or another ego-state: "Parent", "Adult", "Child". It was provided that the representatives of each category of research participants - both lecturers of the institution of higher education and higher education applicants - were characterized by a qualitative structure and a specific level of the development of the system of individual value priorities. The second research line involved studying the nature of the interdependence of individual value priorities of lecturers and applicants of higher education with their dominant functional ego-states in the process of pedagogical transactions in higher school.

Thus, based on the character of the tasks that were being solved at each stage of the empirical research, within each of the two research categories - the lecturers of the institution of higher education and higher education applicants, in the process of pedagogical transaction in higher school, the representatives with the domination of one of three functional ego-states ("Parent", "Adult", "Child") were identified. They were characterized by a certain level of the development of individual value priorities.

Instruments and Procedure

Investigation of the dominant functional ego-states in the representatives of different categories of the participants of educational process in higher school was conducted by means of the test "Eric Berne's Transactional Analysis" to determine the role positions (ego-states) of the individual in interpersonal relations. The dominant functional ego-state of the participants was determined by choosing the role position that was evaluated with the highest score. In order to study the personal values of the participants of educational process in higher school at the level of individual priorities, which are most often manifested in their social behavior, Schwartz's method was used. From the list with a description of a person that corresponds to one or another from 10 types of values, the participant was suggested to evaluate to what extent a person, described in the method, is similar or is not similar to him. A scale of 5 positions was used: from "is very similar to me" to "is not similar to me at all". As the indicators of the development of the system of individual value priorities of the participants of educational process in higher school, the following types of values are used at the level of individual priorities: conformity, traditions, benevolence, universalism, self-direction, stimulation, hedonism, achievement, power, security.

Research Sample

In the empirical research conducted between the end of 2016 and the middle of 2018, 480 lecturers and students from several institutions of higher education of Ukraine took part: Lesya Ukrainka Eastern European National University, Ternopil Volodymyr Hnatiuk National Pedagogical University, The Bohdan Khmelnytsky National University of Cherkasy, Rivne State University of Humanities. Through randomized selection, a representative sample was formed. Each institution of higher education had a proportional quantitative representation of the participants in it. Demographic (gender, age) and social (educational and professional status, professional affiliation) characteristics of the participants were determined as the criteria of the sample representativeness. The quantitative representation of the participants under the indicated criteria is reflected in Table 1.

Table 1. Demographic and social characteristics of the participants

Educational professional status	applicant of higher education - 248 persons; lecturer of a higher education establishment - 232 persons
Professional affiliation	specialty of applicant of higher education: humanities - 85 persons, natural sciences - 83 persons, technical - 80 persons; specialty of lecturer of higher education institution: humanities - 90 persons, natural sciences - 80 persons, technical - 78 persons
Sex	female - 229 persons, male - 219 persons
Age	applicant of higher education: 17-18 years old - 89 persons, 19-20 years old - 84 persons, 21 years old and more - 75 persons; lecturer of higher education institution: 26-35 years old - 59 persons, 36-45 years old - 64 persons, 46-55 years old - 67 persons, 56-65 years old - 53 persons, 66 years old and more - 48 persons

Data Analysis

The analysis of empirical research data was carried out in accordance with the logic and nature of the tasks that were solved within each of defined above stages. In view of this, the statistical apparatus of the study was substantiated.

Statistical analysis of data within the framework of the implementation of the first line of research was carried out in several stages. The first stage involved the analysis of Descriptive Statistics, in particular Frequencies. A two-dimensional frequency analysis of the expressiveness of the dominant functional ego-states of the research participants was performed separately in a sample of lecturers of higher education institutions and a sample of higher education applicants. Average indicators of the significance of individual values priorities (personal values) for the subjects, differentiated into different groups according to the criteria "dominant ego-state" and "socio-educational status" were calculated as well.

Quantitative indicators of two-dimensional frequency analysis of data at this stage of the statistical analysis were presented by means of the table of contingency (crosstabulation) of nominal attributes. The average indicators of the significance of individual value priorities (personal values) were presented separately for a sample of lecturers and higher education applicants - by means of one-dimensional table.

The next stage of the statistical analysis of data in the framework of the implementation of the first line of the research was to factorize the indicators measured by means of Sh. Schwarz's methodology, which allowed obtaining a factor model of the value structure of the personality of the participants of educational process in higher school. For this purpose, the method of Factor Analysis was used. The system of value dispositions (integral factors) of the participants of educational process in higher school became the result of this stage of statistical analysis.

The statistical analysis of data in the framework of the second line of the research was aimed at studying the nature of the interdependence of the individual value priorities of lecturers of higher education institutions and higher education applicants with their dominant functional ego-states in the process of pedagogical transactions in higher school. The dominant functional ego-states of the participants of educational process in higher school, determined by means of the E. Bern's test, were defined as the independent variable. Their value dispositions (integral factors), defined at the preliminary stage of the statistical analysis, were determined as the dependent variable. The grades of the independent variable became the dominant functional ego-states of the research participants: "Parent", "Adult", "Child".

Also at this stage of the analysis the nature of the interdependence of the system of integral value dispositions of the participants of educational process in higher school with their socio-educational status was studied. The need for this was conditioned by the fact that a pedagogical transaction in an educational process in high school is always interaction within the limits of, at a minimum, a social dyad "lecturer-student". Therefore, it was important to differentiate the research participants on the basis of "socio-educational status" in order to identify specific features, and therefore probably - meaningful differences in the level of expressiveness (development) of the system of individual value priorities of lecturers and applicants of higher education. Therefore, the socio-educational status of the participants of educational process in higher school, which had two graduations - "lecturer of higher education institution" and "applicant of higher education" - was determined as one more independent variable.

The solution of outlined tasks was accomplished by means of the interpersonal two-factor experimental plan with two subjective independent variables (or *ex post facto* variables). The two-factor dispersive analysis (2-Way ANOVA) was used for the statistical analysis of the obtained data. It was supposed that the 2-Way ANOVA method would provide for the determination of the degree of influence of the variables "dominant ego-state" and "socio-educational status" and their interaction on the distribution of values (factor estimates) of integral value disposition of the participants. Formally such a scheme of the analysis can be marked as ANOVA 3×2 . As a result, this allowed to get answers to the following questions:

1. Is there a major effect of the variable of "the dominant ego-state", i.e., are there any meaningful differences in the means of the significance of the integral value dispositions of the research participants with the domination of different ego-states, and what is the degree of such differences?
2. Is there a major effect of the variable "socio-educational status", that is, are there any meaningful differences in the means of the significance of integral value dispositions of the participants with different socio-educational status, i.e. lecturers and applicants of higher education, and what is the degree of such differences?
3. Is there an interaction between the variables "dominant ego-state" and "socio-educational status", that is, does the influence of one of these variables on the level of expression of the participants' integral value dispositions depend upon the gradation of the other one?

Results

In order to reflect the relationship between the non-metric (nominative) variables of the research participants as "socio-educational status" and "dominant ego-state", the table of contingency (crosstabulation) of nominative attributes (Crosstab) was used. The results of two-dimensional frequency analysis of the expressiveness of the dominant functional ego-states of the research participants in interdependence with their socio-educational status are presented in Table 2.

Table 2. Crosstabulation of "socio-educational status" and "dominant ego-state" of the research participants

		Dominant ego-state			Total
		Parent	Adult	Child	
Socio-educational status	lecturer of higher education institutions	67	119	46	232
	applicant of higher education	72	96	80	248
Total		139	215	126	480

Taking into account the data of the distribution of frequency of expression of the dominant ego-states of the research participants separately in the sample of lecturers and applicants of higher education, one can distinguish an important tendency. According to the data of the table, in the sample of lecturers of higher education there is a lower frequency of meeting the dominant functional ego-state "Child" (n = 46) than in the sample of applicants of higher education (n = 80). A similar character of tendencies, however, not so distinct, can be observed in relation to the dominant functional ego-state "Parent" (n = 67 and n = 72, respectively). The opposite trend can be noted in relation to the dominant ego-state "Adult": in the sample of lecturers of higher education institutions, the frequency of meeting it is higher (n = 119) than in the sample of applicants of higher education (n = 96).

Table 3. Average indicators of the significance of individual value priorities of the research participants depending on their "socio-educational status" and "dominant ego-state"

Individual value priorities	Socio-educational status		Dominant ego-state		
	Lecturer	Applicant	Parent	Adult	Child
Universalism	2,09	1,80	1,98	2,16	1,79
Benevolence	2,34	2,07	2,26	2,33	2,28
Power	1,30	1,28	1,32	1,25	1,29
Achievement	2,27	2,11	2,23	2,31	2,19
Self-direction	2,49	2,46	2,44	2,50	2,27
Stimulation	2,32	1,89	2,30	2,36	2,24
Hedonism	2,36	1,85	2,29	2,19	2,43
Tradition	1,26	0,83	1,30	1,32	1,20
Conformity	1,79	1,57	1,85	1,69	1,73
Security	2,25	2,16	2,28	2,34	2,18

At this stage, the content interpretation of the average indicators of the importance of the individual value priorities of the participants, differentiated into different groups according to the criteria of "socio-educational status" and "dominant ego-state", was not conducted for the reason that the need for this became

more relevant in the format of the analysis of the expressiveness of the factor score of integral value dispositions of the participants by the results of the next stage of statistical analysis. There is a need to make the meaningful interpretation of the results of the final stage of statistical analysis within the framework of the implementation of the first line of research.

As a result of the factorization of the indicators of individual value priorities of the participants of educational process in higher school, measured by means of Schwartz's method, a factor model of the value structure of their personality was obtained. The content of the factor model of the value structure of the personality of the participants of educational process in higher school is determined by three integral personal factors - value dispositions. The meaningful interpretation of integral factors is conducted.

The first factor, explaining 29.4% of dispersion of features, reflects the value characteristics of the research participants, which are formally determined by the positive pole of two and the negative pole of one variable. With the greatest factor importance, this factor includes the following variables: "universalism" (0.892) as a valuable characteristic of self-transcendence of the person whose motivational goal is tolerance, understanding, protection of the well-being of all people and nature; "Benevolence" (0.847) as a value type, derived from the need for positive interaction, the need for affiliation and ensuring the prosperity of the social group; the motivational goal of this type is to preserve the well-being of people with whom the individual is in the personal contact (utility, loyalty, leniency, honesty, responsibility, friendship, mature love); "power" (-0.779) as a value orientation, which, taking into account the sign, determines the absence of the desire to achieve or maintain a dominant position within the whole social system. The central motivational goal of this type is to achieve social status or prestige, control or dominance over people and resources (authority, wealth, power, preservation of their own social image, public recognition). Categorization of this factor makes it possible to identify its essential basis, the content of which is defined by the value orientation of the individual for the implementation of the motivational goals of universalism, to ensure the well-being of all people, regardless of their social affiliation, a manifestation of a benevolent attitude to people regardless of life circumstances and situations without the desire to control or dominate over them. Thus, if to summarize the variables that are included in the first factor, it can be interpreted as a factor of "value dispensation of transcendence".

The second factor, explaining 25.7% of the dispersion of features, reflects the value characteristics of the research participants, which are formally determined by the positive pole of the three and the negative pole of one variable. With the greatest factor importance, this factor included variables: "achievement" (0.856) as a value type, focusing on the social acceptance, respect, and manifested by a high level of individual competence in the direct interpersonal interaction; "independence" (0.824) as a valuable orientation, which lies in realizing the decisive personal need for self-control and self-direction. Such a value type is derived from the interactive needs for autonomy and independence, and is characterized by autonomy of thinking and choice of ways of action, it lies in creativity and research activity; "stimulation" (0.769) as a value type, which lies in the desire for novelty and deep emotions. The motivational goal of this type is to provide and maintain an optimal level of activity through a permanent change of impressions and stimulating environment; "hedonism" (-0.735) as a value type, the motivational goal of which, taking into account the sign, is defined as the indifference to pleasure and sensual satisfaction. If to substantially generalize the nature of the variables, included into the second factor, then one can identify a common feature for them - all of them, in a varying degree, determine the value orientation for personal success and achievement through the display of competence in accordance with social standards. In view of this, it can be interpreted as a factor of "value disposition of achievement."

The third factor, explaining 18.7% of the dispersion of characteristics, reflects the value characteristics of the research participants, which are formally determined by the positive pole of the three variables. With the greatest factor importance, this factor includes the following variables: "tradition" (0.778) as a value type, focusing on the reproduction of group experience and is concentrated on traditions and customs. The motivational goal of this type is to respect and accept the customs and ideas that exist in the culture and follow them; "conformity" (0.736) as a value type the motivational purpose of which is determined by moderation and prevention of actions, as well as inclinations and motives for actions that can harm others or do not meet social expectations; characterized by manifestation of obedience, self-discipline, courtesy, respect for parents and elders; "safety" (0.692) as a valuable orientation, which lies in the pursuit of social order, family safety, national security, mutual assistance. The motivational goal of this type is the security for other people and for oneself, harmony, stability of society and relationships in it.

If to summarize the character of these types, it becomes obvious, - the outlined value symptom complex reflects the personal attitude of the research participants to accept and reproduce the customs, ideas and norms of behavior adopted in the society; is characterized by the desire to avoid actions that do not meet social expectations; manifests itself in the cultivation of the primacy of collective and individual security. Thus, taking into account the generalizations made during the meaningful interpretation of the variables included in the structure of the third factor, one can interpret it as a factor of "value disposition of conservatism."

There is a need to analyse the results obtained in the framework of the implementation of the second line of the research, which was aimed at studying the nature of the interdependence of individual value priorities of the participants of educational process in higher school with their dominant functional ego-states. According

to the results of the dispersion analysis, a dispersion model was obtained for each of the three integral value dispositions of the participants (personal factors), that were separated out during factorization of empirical data.

The model for the dependent variable of "*value disposition of transcendence*" is statistically significant and explains 55.4% of the total dispersion. If to observe the interdependence between the independent variables "dominant ego-state" and "socio-educational status" and the factor of "*value disposition of transcendence*", it becomes obvious that both independent variables have a significant impact on the distribution of its factor scores. In this case, the main effect of the variable "dominant ego-state" was more reliable ($p \leq 0.001$) than the main effect of the variable "socio-educational status" ($p \leq 0.01$). As for the effect of the interaction between the factors "dominant ego-state" and "socio-educational status", it turned out to be statistically not significant ($p > 0.05$). Using the graph of average indicators, one can make a meaningful interpretation of the detected fact (see Figure 1).

Figure 1. Graph of average indicators for the factor of "value disposition of transcendence"

Graphic data show that the highest indicators of the factor of "*value disposition of transcendence*" are demonstrated by the research participants with the dominant ego-state "Adult". The research participants with the dominant ego-state "Parent" are characterized by the lower indicators of this factor. The participants with the dominant ego-state "Child" reach the peak of low indicators. It is also obvious that the maximum discrepancy in the average indicators of the factor of "*value disposition of transcendence*" is demonstrated by the lecturers of higher education institutions and applicants of higher education according to the dominant ego-state "Adult", and the minimal discrepancy in the average indicators under this factor is observed between them in the dominant ego-state "Parent". In this case, the interdependence of the variables "dominant ego-state" and "socio-educational status" with the variable of "*value disposition of transcendence*" has a distinct cause-effect (causal) character.

In fact, one can state that the high level of expressiveness of the value disposition of transcendence in the research participants is determined by the influence of such a dominant position in the structure of their personality as ego-state "Adult". This means that a person with a high level of autonomy and internal balance, which is capable to perceive the life rationally and assess the reality objectively, can prospectively realize its value potential at the self-transcendental level of life functioning. This kind of a personality can be characterized, to a great extent, by such value orientations as understanding, tolerance, protection of the well-being of all people and nature. The realization of the motivational goals of universalism, ensuring the well-being of all people, regardless of their social affiliation, displaying a benevolent attitude to people regardless of life circumstances and situations without the desire to control and dominate them, can become an important life priority for such an individual. Instead, a person with a dominant ego-state "Child" is unlikely to achieve such a level of value development as universalism and self-transcendence.

Another important regularity, revealed by the results of this stage of statistical analysis, has become the confirmation of trustworthy differences in the degree of expressiveness of the value disposition of transcendence among lecturers of the institution of higher education and applicants of higher education. In particular, the most expressive character of the differences between them is observed in relation to such a dominant ego-state as "Adult". It is believed to be naturally determined, because a typical lecturer of higher education institution, in contrast to the average applicant of higher education, is at the same level of ego-functioning ("Adult"), due to the age characteristics, the formation of personal and social identity, as well as quality and character of the acquired life experience. A typical lecturer with a high degree of probability will be more successful in the implementation of the motivational goals and values of universalism and self-transcendence.

The model for the dependent variable "*value disposition of achievement*" is statistically significant and explains 51.9% of the total dispersion. According to the results of the dispersion analysis, only the

cumulative effect (interaction) of the independent variables on the dependent variable was confirmed ($p \leq 0.05$). In this case, the interaction of independent variables manifests itself in the fact that the influence of the variable "dominant ego-state" on the factor "value disposition of achievement" manifests itself differently in different gradations of the variable "socio-educational status". Regarding the main effects of the influence of independent variables on the dependent one, they were statistically not significant ($p > 0.05$). Using the graph of average indicators, one can make a meaningful interpretation of the discovered fact (see Fig. 2).

Figure 2. Graph of average indicators for the factor of "value disposition of achievement"

Graphic data show that teachers of a higher education institution demonstrate trustworthy differences in the average indicators of the dependent variable according to their dominant ego-state. Thus, the average indicators of the dependent variable of the research participants with a dominant ego-state "Adult" are the highest, and in the participants with the dominant ego-states "Parent" and "Child" - are the lowest. A similar character of the distribution of the average indicators of the dependent variable is also observed in the applicants of higher education. They are significantly different at different levels (gradations) of their dominant ego-states: the highest average indicators are demonstrated by the dominant ego-states "Parent" and "Child". The research participants with a dominant ego-state "Adult" have the lowest average indicators.

In our opinion, the probable explanation of the revealed phenomenon can be the fact, that in the public consciousness, and specifically - in the individual psychological projection of most people, one of the important attributes of social and personal success is the value orientation of achievement, which often focuses on social acceptance, respect, and manifests high level of personality competence in the direct interaction with others. In view of this, the degree of the development of personality values, relevant to the attributes of personal, social, professional and life success, will probably be higher for the lecturers of higher education institution, which apparently took place in a professional sense and have a high social status. This is possible under the condition of "sober" and critical attitude to life, rational perception of life realities and their objective assessment, that, in fact, characterizes the person with the dominant ego-state "Adult".

Instead, according to the results of the research, it turned out that for most applicants of higher education, the high level of the development of the value orientation of achievement correlates with the domination in their personal structure of such an ego-state as "Parent". An obvious explanation for this may be the fact, that the person, who is at the stage of active professional and life formation, connects the potential social success and achievements with the need to interact with the significant others. In this case, due to the active process of professional development and personal formation, the lecturers, professionals, and other personalized and non-personalized referents become important others. The very significant others in the interaction with future professionals - applicants of higher education - perform the basic "parental" function - the formation of knowledge, transfer of experience and preparation for the adult life. All these points in the future will provide a high level of personal achievements.

Ego-state "Parent" - is the significant others, kept inside us, our mentality. These are our beliefs, values, orientations, ideals. Many of them are perceived as own ones, taken by ourselves, whereas in reality they are, through the mechanisms of "introjection," assimilated into the structure of our "Self" and become the elements of our identity. Actually, these facts indirectly explain that the applicants of higher education have the expressed interdependence of the high degree of the development of the value orientation of achievement and actualization in the structure of their personal functioning of ego-state "Parent".

The model for the dependent variable of "value disposition of conservatism" is statistically significant and explains 49.7% of the total dispersion. In this case, there was a significant impact on the dependent variable of only one independent variable - the "dominant ego-state" ($p \leq 0.05$). The main effect of the independent variable "socio-educational status" and the cumulative impact (interaction) of independent variables

on the factor "value disposition of conservatism" were statistically not significant ($p > 0.05$). By means of the graph of average indicators, the interpretation of the revealed fact can be made (see Fig. 3).

Figure 3. Graph of average indicators for the factor of "value disposition of conservatism"

The graphic data show that the highest indicators of the factor of "value disposition of conservatism" are demonstrated by the research participants with a dominant ego-state "Adult" with the expressed socio-educational affiliation, namely, the lecturers of higher education institutions. The participants with a dominant ego-state "Parent" are characterized by the lower indicators of the dependent variable. The participants with a dominant ego-state "Child" have the lowest indicators.

It is believed, that the value orientations for the adoption and reproduction of the customs, ideas and norms of behavior excepted in the society, for the avoidance of actions that do not meet the social expectations, for the provision of collective and individual security, to a greater extent characterize the position of a mature, "Adult" personality. For this personality the traditional and secure components of joint co-existence are necessary conditions not only for its personal survival but also for the effective functioning at the level of social community. Actually, the value orientations of this order are the most relevant to the personality that functions at the level of ego-state "Adult".

Discussion

Effective solving of educational problems that have become a stable trend and the subject of studying of fundamental and applied sciences in recent years, is impossible without taking into account the content, nature and specificity of pedagogical transactions (Adams et al., 2001; Hellaby, 2004; Stuart & Alger, Stewart & Amp; Joins, 1987). Researches devoted to studying the use of transactional analysis in education, which are connected with the study of fundamental mechanisms of personality development, anyhow, have become the basis for the development of the concept of this investigation. The consideration of the principles of the transactional analysis theory provided the basis for the examining of the assumption about the interdependence of the ego-structure characteristics (ego-states) of the educational process participants in higher school and the system of their individual value priorities (Alipieva, 2017). Although in the aspect of studying the issues of psychological support and accompaniment of the pedagogical transaction in higher school a number of studies have been conducted and representative scientific and empirical facts have been obtained, but in terms of its interdependence with structural (ego-states) and meaningful (values) characteristics of the participants of educational process in higher school these kinds of searches have not been carried out yet. Taking into consideration the importance of the role of the educational process in the formation of a stable core of value priorities of the individual, the relevance of this research is evident.

The results obtained in the framework of this research allow to raise the question of the substantiating of their significance in terms of both theoretical and practical "value". As the criteria for this justification, one may consider the degree to which the results are relevant to those obtained from other scientific researches, as well as the degree of their predictive value.

The data, obtained by S.H. Schwartz, the author of the Schwartz's Value Survey, were given as an argument to justify the relevance of the results of this investigation. Developed by S.H. Schwartz and used in this research theory of dynamic relations between the basic value types, which describes the conceptual organization of the personality values system is considered to be of great value. (Karandashev, 2004).

The results of S.H. Schwartz's research (Schwartz, 1992, 1996) within the framework of the theory of dynamic relations between the basic value types showed that they are organized in two bipolar axes:

- *openness to change*, which includes self-direction and stimulation – *conservatism*, which includes security, conformity and traditions;

- *self-enhancement*, which includes the values of power and achievement –*self-transcendence*, which includes the values of universalism and benevolence.

Hedonism as a basic value type includes elements of both *openness to change* and *self-enhancement*.

The results of this research generally confirmed the structure of Schwartz's basic value types. Three integral value dispositions: "*transcendence*", "*achievement*", "*conservatism*" were included into the structure of the empirical model of the relationship between the basic value types obtained from the sample of lecturers and applicants of higher education. According to the results of the research, the main value types of universalism and benevolence were included into the structure of the "*value disposition of transcendence*", which determined the content of a pole of the first axis (according to S.H. Schwartz) as self-transcendence. "Power" as a value orientation, which determines the lack of desire to achieve or maintain a dominant position within the whole social system became the third basic value type in the structure of the "*value disposition of transcendence*".

The pole of the first axis, or *openness to change*, and the factor of "*value disposition of achievement*" also became structurally similar both in the theoretical model of the relations between the basic value types of personality, described by S.H. Schwartz, and in the empirical model, according to the results of this research. It should be admitted that S.H. Schwartz's structure of the pole *openness to change* has been identified by two value types - self-direction and stimulation. In this investigation, in addition to the above-mentioned value types (self-direction and stimulation) the value types of "achievement" and "hedonism" (a value type that substantially determines the indifference to enjoyment or sensual pleasure) came into the structure of the "*value disposition of achievement*".

Also, the pole of the first axis of *conservatism* in the model of S.H. Schwartz and the factor of "*value disposition of conservatism*" according to the results of this research turned out to be structurally and substantially identical. The basic value types common to both models were: traditions, conformity, security.

Reasoning from this fact, it can be assumed that the value structure of personality, defined and described by S.H. Schwarz in the framework of the theory of dynamic relations between value types, expresses and confirms the universal character of the value structure of individual, regardless of his cultural and social affiliation. This fact indirectly found its confirmation in the results of this investigation.

Also, as an argument to justify the relevance and prognostic value of the results of this research, the data, obtained by western counterparts, can be presented (Wieczorek, 1997). These data indicate that in the educational process in higher school, the transfer of values and meanings is "experienced" and "awarded" by the applicant of higher education much more effectively in the system of pedagogical transaction "integrated adult" (Wieczorek, 1997). The development of a personal relationship between a student and an educator (lecturer) depends to a great extent on the presentation of confidence, care and feelings through them – necessary to give the young person its sense of personal value, with the natural lack of equality in action. (Dominian, 1988). Then, the interiorized values in the "Adult" position make it possible to make logical speculations, responsible decisions, realize and transform values into practice independently (Muriel, Dorothy, 1994; Wieczorek, 1997; Pelekh, 2009).

The actual data of this investigation not only confirmed the position of these researchers, but to some extent developed it. In the context of the results obtained in the research, it is important to understand that the domination in the personal structure of the students the functional ego-state of "Adult" determines their high level of the expressiveness of value disposition of transcendence. In other words, the realization by the applicants of higher education of their own value potential on the self-transcendental level of life functioning as the key task and the result of the educational process in higher school is most likely and typical for those representatives who function in the mode of dominant ego-state "Adult".

Extrapolating the above-mentioned principle to the plane of personal functioning and development, Z. Wieczorek emphasizes that their effectiveness is connected with the acceptance of the state of "Adult", which serves as a condition for the transformation of values into internal standards, including those that contain the principles of moral responsibility. On the other hand, young people themselves regulate their matters in a field in which it is possible for them and in which they feel responsible (Schoenebeck, 1994). The educational system, proceeding from the position of "Adult", is full of faith in man and his development. "Education must support the process of life itself, while approving the preservation of internal values by managers" (Leite, Parrish, 1994).

The consistency of the analyzed positions of the authors with the results of this research is obvious in the light of the fact that the important vital priority of a person with a high level of expressiveness of the value disposition of transcendence is the value orientations, relevant to a high level of its moral development, such as understanding, tolerance, ensuring the well-being of all people independently from their social affiliation, benevolent attitude to people regardless of life circumstances and situations without the desire to control and dominate over them (Mazurkevich et al. 2017).

In the logic of the given arguments it is possible to determine the prospect of further investigations in the direction of determining the conditions for optimizing the educational process in higher school and predicting the level of academic achievement of higher education applicants depending on the nature of the development of the value structure of all the participants of the educational process in higher educational establishment and the qualitative level of functioning of the characteristics of their personal structure (ego-structure). The verification

in the framework of a separate research of the hypothesis about the congruence of the role positions of the participants of educational process in higher school as a prerequisite for effective translation and "interiorization" of the value system of the highest order (such as the values of transcendence) by higher education applicants seems to be heuristic and promising.

It is provided, that, with a high degree of probability lecturers with a dominant functional state "Adult" will be the most value referential (i.e. will provide the most effective translation of values) for those higher education applicants, who, in the process of pedagogical transaction, will functionally resonate with them in the same mode of its congruent ego-state (that is, they will also function in the mode of dominant ego-state "Adult").

Conclusions

The process of transforming the qualitative structure of the educational process in higher education forms the demand for a productive educational paradigm, which will be based on the strategies of improving the quality of higher education on the basis of scientifically grounded concepts. In view of this, the idea of the content character and qualitative specification of the pedagogical transaction in the educational process in higher school, depending on the domination of one or another role position (ego-states) of its participants has the obvious research perspective within the implementation of the principles of transaction analysis. This idea was clearly specified and was converted into a research plan, which was to study the individual value priorities of the participants of the educational process in higher school in interdependence with the characteristics of their ego-structure (dominant ego-states).

According to the results of the study, it became possible to affirm that the system of individual value priorities of the participants of educational process in higher school - lecturers and applicants of higher education, has a specific structural organization, which is determined by a complex of integral value dispositions. As their integral value dispositions, the factors of "value disposition of transcendence", "value disposition of achievement" and "value disposition of conservatism" are singled out.

The assumption about the causal nature of the interdependence of the individual value priorities of the participants of educational process in higher school with the characteristics of their ego-structure (i.e. the dominant ego-states) was made. It was revealed that the dominant ego-state "Adult" acts as a predictor (factor) of the development of such integral value structures of personality as "value disposition of transcendence" and "value disposition of conservatism".

The assumption about the socio-educational character of the determination of the system of individual value priorities of the participants of educational process in higher school is confirmed. It was found that the socio-educational status of the participants, in particular, the status of a lecturer of higher education institution, acts as a predictor (factor) of the development of such an integral value orientation as the value disposition of transcendence.

Finally, the effect of interaction between the dominant functional states of the participants of educational process in higher school and their socio-educational status in relation to the development of such an integral value orientation as a "valuation disposition of achievement" was revealed.

Obviously, taking into account the fundamental principles of the theory of transactional analysis, supported by the results of the research of the system of individual value priorities of the participants of educational process in higher school, will allow in future to predict the level of academic success of higher education applicants depending on the nature of the development of the value structure of all the participants of educational process in higher school and the qualitative level of functioning of their personal structure (ego-structure) characteristics; to develop effective scenarios of optimizing the quality of educational process in higher education institutions, as well as to ensure the effective functioning of the higher education system in accordance with the needs and requirements of its participants.

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Compliance with Ethical Standards

Conflict of interest

All authors declare that they have no conflict of interest.

Human and Animal Rights

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

The research involved human subjects, each of which provided informed consent prior to the completion of all study procedures. An institutional review board approved all procedures prior to the completion of the study.

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