Psychological-Pedagogical Diagnostics of the Development of Individuals and Groups in the Education of Modern Students

Diagnóstico Psicológico-Pedagógico del Desarrollo de Individuos y Grupos en la Educación de Estudiantes Modernos

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ABSTRACT:
The ability of young people to adapt to their surroundings in higher educational institutions have a direct effect on their academic performance, as well as their moral and personal characteristics. The authors consider the possible causes of difficulties with the adaptation of students at the beginning of their study at universities and offer a specially formed complex of diagnostic procedures to examine the personal and professional characteristics of students and the characteristics of group dynamics during educational and professional activities. In order to achieve the set goal, the study analyzed special philosophical, psychological, pedagogical, scientific, and methodological literature on the problem at hand and conducted a two-stage diagnostics of the level of motivation of students who majored in Psychological and Pedagogical Education in 2014-2015 and 2016-

RESUMEN:
La capacidad de los jóvenes para adaptarse a su entorno en las instituciones de educación superior tiene un efecto directo en su rendimiento académico, así como sus características morales y personales. Los autores consideran las posibles causas de dificultades con la adaptación de los estudiantes al inicio de su estudio en las universidades y ofrecen un complejo de procedimientos diagnósticos especialmente formados para examinar las características personales y profesionales de los estudiantes y las características de la dinámica de grupo durante las actividades educativas y profesionales. Con el fin de alcanzar el objetivo fijado, el estudio analizó la literatura filosófica, psicológica, pedagógica, científica y metodológica sobre el problema y llevó a cabo un diagnóstico en dos etapas del nivel de motivación de los estudiantes que se graduaron en Educación Psicológica y Pedagógica en
1. Introduction

In the modern theory and practice of higher education, there is a number of problems that are determined by the social and psychological characteristics of the modern student community (Hemmati, & Valadi, 2016, pp. 101-124; Barros et al., 2014, pp. 102-103; Yu, & Wright, 2016, pp. 49-64). In this respect, special attention should be paid to the adaptation and self-adaptation of the developing personality of a future professions and the formation of his or her social and professional identity. Essential, conceptual, organizational-activity, and resultative characteristics of adaptation are related to more than just the adjustment to the rhythm of the educational organization, acceptance of the requirements and rules of conduct and interaction, and satisfaction with life in a new situation (Sandel, 2014, pp. 1-29; Tong, 2014, pp. 83-100; Mansur et al., 2016, pp. 41-45). To a greater extent, adaptation is related to a special area of professional activity of teachers and psychologists during the support of students. This implies the creation of favorable socio-psychological conditions for the effective learning and psychological development of students in situations of interaction during the educational process.

An important conclusion that was drawn from the analysis of theoretical deductions and experimental data was that it was impossible to register any final state of students’ adaptation (Rean, Kudashev, & Baranov, 2006, p. 479; Roslyakov, 2003, p. 195). Firstly, adaptation itself as a state has an inherent dynamic nature; secondly, the need for constantly recurring interactions of students with the educational and sociocultural environment implies a continuous emergence of new changes. This necessitates the search for and test of psychological and pedagogical conditions, in which the successful personal and professional development of prospective specialists will take place.

According to I.A. Zimnyaya (2002) and her co-authors, a crucial characteristic of positive personal development is the general culture of the student, which serves as a foundation for successful professional development. Considering the abovementioned problems in the development of higher education with regard to the social, psychological, and pedagogical characteristics of the modern student community, the pressing issue is to study comprehensively the personal and professional characteristics of future graduates. In this regard, in order to take into account the age-related and socio-psychological characteristics of a personality, as well as the specificity of its personal and professional development, it is necessary to design a holistic system of social, psychological, and pedagogical diagnostics, which would be logically incorporated into the educational process and could help solve a series of complementing problems related not only to the professional development of students’ personalities, but also to the prevention of personal and professional disadaptation and, if necessary, the correction of existing professional and personal disharmonies (Shchelina, 2013, pp. 69-82; Shchelina, 2012, pp. 79-85; Shchelina, Begantcova, & Markeyeva, 2014, p. 4446).

It is important to consider the fact for young adults, learning and professional activity becomes the main type of activity, which is why the pivot of their personality’s self-consciousness is the desire and ability to not only plan their future life, but also search for means of realizing their plans (Shchelina, 2012, pp. 79-85; Yu, & Wright, 2016, pp. 49-64; Luo et al., 2014, pp. 16). The situation is aggravated by the fact that senior pupils are often undecided about their
personal and professional preferences and wishes (Mirzayanova, 2006, pp. 9-57; Pilyugina, 2012, pp. 289-291). Thus, when designing the diagnostic tool system, it is necessary to take into consideration a series of factors that would facilitate the acquisition of information that would go beyond simply helping to improve the learning process within a specific education system. It is important to determine the potential personal abilities of each participant of the educational process, including the teachers, and take into account the social and psychological context of personality studies, which forms and manifests in the relationships between the participants of the educational process. Therefore, the diagnostic tools proposed in this study includes methods that are aimed at studying individual and psychological features of the personality and determining the dominating social, psychological, and activity orientation of the group.

2. Methods

It is important to know not only the professional orientation of students, their motivation and value orientations, self-esteem and level of aspirations, and attitude to their profession, but also the dominating and pronounced accentuations of their character, which allows predicting their future behavior and preventing personal disadaptation with regard to group dynamics.

During comprehensive psychological and pedagogical diagnostics, it is possible to compose a holistic social and psychological profile of a group with regard to the individual and personal features of students majoring in different subjects and their length of study at the higher educational institution, which allows determining the general trends that characterize the features of professional self-determination of modern students at various stages of their professionalization.

In order to distinguish the peculiarities of the professional and personal development of modern students, the psychological and pedagogical service of the Psychology and Pedagogy faculty of the Lobachevsky University Arzamas branch uses a special complex of psychodiagnostic methods. This complex is aimed at determining the professional orientation of the personality of modern students, their motivation, attitude to the profession, life and value orientations, the features of their self-consciousness, characterological features, and personal relationships in a team. The diagnostic complex includes a method for studying the motivation behind the choice of a profession and professional orientation of a person (J. Holland’s method, modified by A.A. Azbel and A.G. Gretsova) A.M. Etkind’s color attitude test, life-purpose orientation test (based on the PIL (Purpose in Life) test (Haugan, & Moksnes, 2013, pp. 296-319) by Crumbaugh & Maholick, modified by D.A. Leontyev and M.O. and O.E. Kalashnikovs), a M. Rokeach’s method for determining value orientations, a method for determining the actual structure of value orientations (Bubnova, 1995), the Dembo-Rubinstein self-esteem measurement method, Schwarzlander’s Level of Aspirations method (Schwarzlander’s method n.d.), K. Leonhardt’s method for studying personality accentuation (modified by H. Schmieschek), and J. Moreno’s sociometry.

3. Data, Analysis, and Results

The psychodiagnostic tools proposed in this study are used with regard to the peculiarities of the stages of occupational training. In case of first-year students, it is important to determine the initial level of their personal and professional development, which serves as the starting point for the analysis of its dynamics. The need to adapt first-year students to new living conditions (Liliental, 2003, p. 178; Mirzayanova, 2006, pp. 9-57) makes this period somewhat critical. Difficulties in adaptation could trigger disadaptation trends in personal development, which are related to discomfort, stress that is experienced in a new situation that is related to anxiety, and devaluation of oneself and one’s previous achievements, which could impede successful interaction with the environment and cause personal development disorders.

When a student enrolls at a higher educational institution, he or she becomes part of a new
social group, through which he or she approaches the profession at the earlier stages of learning. The group is where students have to learn the peculiarities of their studies at the higher educational institution by learning new ways of interacting with the new team and entering a new mode of their existence, with regard to their occupation of choice. This period is when the foundation of the future professional orientation of the individual is laid, when new personal formations emerge that are related to the motivation of personal growth and future achievement of a prominent professional status. This is when the need for one’s development as a professional either emerges or does not emerge. This is when students reflect on their own academic and professional activity and its results. This is when their notions of their own professional “Self” are amplified.

The solution of problems that emerge during this period is related to the adaptation of first-year students to the learning activity, the formation of a positive learning motivation and confidence, and establishment of positive personal relationships with one’s peers within the team, which characterizes the effectiveness of social integration into the society at this stage of professional development.

The results of a comprehensive study of students’ personalities, which aimed to optimize adaptation processes, show that the choice of a profession is often random and going against the aptitude of the person to this or that professional activity, which can weed out students from an educational institution. This and other factors can cause discomfort during the adaptation of learning in a higher educational institution and undermine the personal meaning of occupational training at its earliest stage (Gaponova, 1994, pp. 131-135).

With regard to the three stages of professionalization of higher educational institution students – adaptation, specialization, and professional orientation – we used an appropriate set of psychodiagnostic methods. The top-priority and continuous methods that were used throughout all the years of study included methods related to the existence of a person within a team (sociometry), its professional and value orientations (M. Rokeach), and formation of a person’s professional orientation (J. Holland). The prerequisites of professional self-determination are created as a result of the senior pupils’ achievement of a necessary level of personal development, which is related to the maturing and formation of such personality structures as value orientations, self-esteem, and professional orientation. Therefore, during the first year of study, it is important to detect the features and level of formation of the motivational-target block of learning, the features of the personality’s individual and psychological characteristics, and the personality’s spheres of self-consciousness. The motivational component is the main factor of personal and professional development; it is the indicator that enables predicting the conceptual risks of unacceptance of the chosen profession. The value-conceptual sphere of the personality is the foundation of its activity manifestations that are related to the formation of such a personality substructure as orientation, in particular, the formation of a personality’s motivation and need sphere, its sphere of self-consciousness, self-determination, inclinations, and interests.

At this age, the personal “Self-conception” is related to the professional one, which is mostly still diffusive. Schwarzlander’s Level of Aspirations method (n.d.) allows determining not only the degree of difficulty of the goals that the student aspires to, but also its relation to the degree of difficulty of the tasks that the student is currently facing. An equally informative indicator is the student’s attitude to his or her real abilities and capacities that are related to the choice of the goal of each following action, which forms as a result of the student experiencing success and failure in a number of previous situations. Therefore, the important aspect is the one that is related to the person’s self-evaluation, which are indicative of an individual’s critical and objective assessment of his or her successes and failures and adequate aspiration to complete set tasks. Inflated self-esteem can be indicative of the fact that the students have a wrong idea of themselves, their possible value for people around them, and their general activity. It can be flexible – grow with success and decline with failure. With such self-esteem, if it exceeds the capacities of a student, such a student tries to achieve the set
goals to the greatest extent possible, while developing his or her personal potential. The significant characteristics of students’ personalities that affect both emotional and behavioral aspects of students and, consequently, the degree of success of their learning activities and organization of personal relationships are the temperamental-characterological accentuations of the personality across various types, which enables predicting emotional and behavioral risks. Thus, the suggested set of methods for diagnosing first- and second-year students enables detecting “risk group” students as early as during the adaptation period. Such students have the following behavioral characteristics: increased anxiety, avoidance of any forms of competition, non-critical assessment of their achievements (false predictions), and a general deflated or inflated self-esteem accompanied by emotional breakdowns and conflicts (Roslyakov, 2003, 195). In this case, it is possible to render psychological assistance to students with regard to the characteristics of their “Self-conception”, axiological and conceptual sphere, and social status. In particular, this can be conducted in the form of individual consultations with a teacher with the use of techniques that give perspective to personal development, for instance, in a sphere that is close to the professional one, but is unrelated to a situation of failure. The activity that the student gradually demonstrates can be directed towards the professional sphere; its successful realization will increase the level of the person’s aspirations and restore deflated self-esteem. This is important, because the level of aspirations is a structure-forming component of the personality, a stable individual quality of the person, which characterizes not only the level of difficulty of the set goals, but also the desired level of the person’s self-esteem (Rean, Kudashev, & Baranov, 2006, p. 479).

The third year of study is the stage of intermediary monitoring of the students’ personal and professional development. Often students (second-year students less frequently than third-year students) can experience disappointment in their studies and reduced motivation for learning. This stage can be called arbitrarily the specialization stage, which commences after the adaptation stage. During this period, students come to realize their level of formation of professional knowledge, skills, and abilities, figure out the problematic areas in the formation of their professional “Self-conception” and ways of dealing with them, and conscientiously and purposefully plot their personal educational path in accordance with their changing idea of themselves as future experts (Pilyugina, 2012, pp. 289-291). During this period, it is important to diagnose the unconscious indicators of one’s attitude towards one’s profession and the conscious conceptual and life orientations, which is why special attention is paid to the data obtained through the color attitude test (CAT) (modified version) and the life-purpose orientation test (LPOT). The results obtained via CAT (modified version) enable determining the emotional attitude to the profession against the backdrop of a poorer motivational attitude thereto; meanwhile, the LPOT enables tracing the dynamics of the interiorized set of the students’ ideas of themselves as a result of realization of professional goals and meanings. This allows detecting unconscious intrapersonal conflicts that are related to the development of professional self-determination of the personality and the understanding and acceptance or unacceptance of oneself as a professional. Rokeach’s test and sociometry, which are the core methods that are used during all stages of learning, provide information that is related not only to the individual and personal development of students, but also to their development in a micro-community. From the first and to the third year of study, it is possible to argue that the professional component is underrepresented in the structure of students’ identities. What is also concerning is the fact that the learning activity and membership in a student community are insignificantly included in the identity structure.

For fourth- and fifth-year student, the more relevant issue is the choice of their future place of employment, formulation of their expectations of the chosen occupation, and the real situation in their professional development – the professional orientation stage. During this period, new forms and new content of the future professional activity are interiorized, the attitude to the profession and oneself as a representative thereof changes in the positive direction, and new personal meanings emerge in this sphere. This lays the foundation for the emergence of an
important new formation – readiness for professional activity, which ensures successful adaptation and self-fulfillment in the profession of choice. At that, it is impossible to rule out the possible existence of senior students, who realize that their profession of choice does not match their abilities, character, and financial demands. During this period, it is important to determine the gravity of various personality types, which enables specifying the real proneness of an individual to work in a specific field. J. Holland’s test allows determining the dominating personality types, which often affects the motivation of the students’ learning activity. When taking into account the specific personality type, it is possible to organize the learning activity in a way that would focus it on developing the abilities that are relevant to the professional activity and matches the students’ inclinations, which facilitates the fullest realization of their potential capacities and effective development of professional abilities.

Thus, the offered set of methods enables studying the individual and psychological characteristics of students, which the students themselves should be aware of to stimulate self-development and which while teachers should be aware of when developing teaching materials and training technologies that take into account the individual trajectories of the professional and personal development of students. Obtained results help to identify the “risk groups” among students at the early stages of their study, develop programs that correct interaction in primary groups and stimulate independent actions in formalized groups, and prevent possible personal and professional disadaptation of future specialists.

The results of repeated diagnostics of third- and fourth-year students majoring in Psychology and Pedagogy (2016-2017) found significant positive changes in their value-conceptual sphere, professional orientation, and motivational sphere. The results that were obtained through the professional choice motive method showed that students became more motivated to engage in learning and self-development within their profession of choice and found that their personal and professional attitudes matched. When compared to junior students, senior students had a greater motivation “to acquire in-depth and solid knowledge” (22% and 28%, respectively). At that, this motivation was higher in senior students that studied in 2016-2017 than in senior students that studied in 2014-2015 (28% and 24%, respectively). The significance of the motive to receive a diploma reduces significantly; it is the least important motive in the group of significant motives (24% during the first years of study and 14% during senior years in 2016-2017, respectively). At that, this motivation was lower in senior students that studied in 2016-2017 than in senior students that studied in 2014-2015 (28% and 24%, respectively). The motive to study properly and develop one’s abilities, with a view to achieving good results moved from the group of indifferent motives to the group of significant motives (9% during the first years of study and 18% during senior years in 2016-2017, respectively). Changes in the motivation sphere of students are indicative of the domination of internal motives in the general structure of professional self-determination motivation, which implies that motivational factors that govern the students’ professional self-determination are in harmony.

The analysis of the results obtained through J. Holland’s method showed that third- and fourth-year students underwent significant changes in the structure of their professional orientation versus the early years of their study. The social type of professional orientation became more expressed (13.2% after the first diagnostics and 40% after repeated diagnostics). At that, third- and fourth-year students that studied in the 2014-2015 academic year had 34.5% of students with a social personality orientation. This shows that changes in the dominating types of personalities also affected the students’ motivation to engage in the learning activity.

Representatives of this social type have pronounced social skills (communication skills, aspiration to leadership, need for numerous social contacts, etc.). These qualities are of professional importance for students that chose “individual-to-individual” professions. These students are personally and professionally flexible, capable of reacting to rapidly changed circumstances, and adapting to them successfully. These students are socially responsible and capable of preserving such personally and professionally important qualities as emotionality and empathy. Their choice of profession is governed by their desire to work with people.
The second-most frequently encountered type of personality is the intellectual one (7.9% after the first diagnostics and 25% after repeated diagnostics). The increase in the number of students that are characterized by the intellectual type of professional orientation is not random, since the teachers themselves have begun to take into consideration the characteristics of the students’ professional self-determination and render individual assistance in preparing them for continuous professional growth and social and professional mobility by purposefully designing technologies that develop the personality of the future specialist that is capable of and ready for self-design and realization of their professional career under serious contradictions between the requirements of the labor market and the specialist market.

Teachers create a favorable climate in the higher educational institution and conditions that facilitate the self-fulfillment of students, determination of their individual abilities, and formation of their value orientations.

The third-most frequently encountered personality type is the artistic type (26.2% after the first diagnostics and 20.3% after repeated diagnostics). Both the curating activities of teachers, which involved the self-development of creative potential, and the organization of interaction with parents and employers and extensive use of technologies involving extracurricular mass-culture and leisure activities of students aimed to unlock the creative potential of the students’ personalities, including ones of this type.

The fourth-most frequently encountered personality type is the enterprising type (39.5% after the first diagnostics and 10.7% after repeated diagnostics). This type mostly includes students, who are youth and trade union leaders, who have approved themselves in real activities, rather than simply having such an idea of themselves during the first years of study. They managed to showcase their managing and leadership abilities, as well as their social and personal communication skills, in real student life. Therefore, they facilitated the possibility that was provided by the educational system, which aimed to create mostly student self-government at the faculty and the higher educational institution in general and wished the teachers to give them certain liberties in the organization of the life of academic groups.

The fifth-most frequently encountered personality type is the conventional type (5.3% after the first diagnostics and 4% after repeated diagnostics). Students with this type of professional orientation are least prone to working in the “individual-to-individual” system. The sample that was studied in first and repeated diagnostics did not discover studies, who realistically had this type of professional orientation.

The results of repeated diagnostics that were obtained through the life-purpose orientation test show that most students had goals in both their current and future life. Most students considered the process of life interesting, emotionally rich, and full of meaning. They were satisfied with their life and looked to the future. They were confident in themselves. Most students were ready for and capable of taking responsibility for their life, making conscientious and reasonable decisions, and acting upon said decisions. All this occurred when the teachers realized the need to form in students a viable personality that is capable of self-determination and self-fulfillment, considering the ever-changing social and natural environment.

The results of repeated diagnostics, which were obtained through M. Rokeach’s method for determining value orientations, showed that the most significant terminal values (goal values) that had the greatest effect on the behavior of students majoring in Psychology and Pedagogy (education psychology and psychology and social pedagogy) were as follows: health, love, happy family life, good and loyal friends, and active life. Thus, by the time the students reached senior years of study, in the list of the more significant terminal values, confidence and financial security were replaced by values related to health, love, happy family life, good friends, active life, and self-confidence, although the rank of the value group was not high. Terminal values that were considered significant under certain circumstances were as follows: interesting job, development, financial security, wisdom of life, freedom, and cognition. The least significant terminal values were as follows: productive life, social recognition, other people’s happiness, pleasure, beauty of nature and art, and creativity. Cognition is not mentioned in this category of
4. Discussion

The analysis allowed distinguishing the arbitrarily “significant”, “neutral”, and “rejected” terminal values for senior students. The analysis of obtained results showed that the most significant terminal values (goal values) that had the greatest effect on the behavior of students majoring in Psychology and Pedagogy (education psychology and psychology and social pedagogy) were as follows: manners, honesty, education, responsibility, neatness, and cheerfulness. Although senior students did mention the latter characteristic, the more significant parameter for them was responsibility.

Instrumental values that had some significance in certain conditions were as follows: can-do attitude, development, empathy, courage in standing one’s ground, self-control, and independence. In this case, the “development” characteristic emerges and the ranking of a number of other values changes, for instance, “courage in standing one’s ground” becomes more important than “self-control”. When it comes to the least significant characteristics, senior students named the following ones: tolerance, efficiency, open-mindedness, rationality, intolerance of flaws, and high demands.

In general, the analysis of the ranking of instrumental values by senior students allows considering their spiritual-value orientation generally positive and insignificantly differing from that of junior students in certain parameters. For third- and fourth-year students that studied in the 2016-2017 academic year, the more significant terminal values were those of professional self-fulfillment. The more important instrumental values were those of business and self-assertion. Perhaps this is related to the fact that teachers created conditions for the formation of students’ integral personalities that were capable of self-development and efficient activity in the constantly changing political, economic, and social conditions.

The analysis of the diagnostic results that aimed to determine the structure of a person’s value orientations (Bubnova, 1995) showed that the main value orientations and the value core of senior students that studied in the 2016-2016 academic year were as follows: 1) learning new things about the world, nature, and the human being (an index of 8 versus 2.9 in the same students during junior years); 2) help and mercy to other people (an index of 7 versus 5.7 in the same students during junior years); 3) communication (an index of 6 versus 2.8 in the same students during junior years); social activity, with a view to achieving positive changes in the society (an index of 5 versus 3.2 in the same students during junior years).

It is worth bearing in mind that first-year students do not always have a clear idea of the result of the educational process and how it takes place, despite understanding the purpose of education in a certain specialty, which makes it difficult for them to adapt during the early stage (Sandel, 2014, pp. 1-29). Therefore, during this stage, it is important to hold motivational training sessions and express support to students, otherwise, the students may lose interest in the educational process.

5. Conclusion

Thus, it is possible to state that such contradictions as the desire to acquire in-depth and solid knowledge, but also a lack of readiness for developing one’s abilities or the choice of a profession that uses the “individual-to-individual” system, but a lack of a desire to communicate directly with another person is no longer characteristic of students. Most students aspire to social activity and are capable of setting professional goals and achieving the result purposefully; their value sphere includes fewer values that are related to pleasure. Their value orientations that are related to a creative and constructive attitude to the world, themselves, and other people, an explorer’s attitude to themselves and their partners, and the adequate empathic attitude to them are reflected in the most significant values that determine the behavior of future specialists. Thus, the suggested method allows not only diagnosing the level
of students’ motivation, but also developing pedagogical approaches to its increase.

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