PAPER • OPEN ACCESS

The relationship of value and life-meaning orientations of modern students with pedagogical technologies of educational activities

To cite this article: Sviatlana V Andryewskaja et al 2020 J. Phys.: Conf. Ser. 1691 012234

View the article online for updates and enhancements.



IOP ebooks[™]

Bringing together innovative digital publishing with leading authors from the global scientific community.

Start exploring the collection-download the first chapter of every title for free.

The relationship of value and life-meaning orientations of modern students with pedagogical technologies of educational activities

Sviatlana V Andryewskaja¹, Yuliya Bryksa, Aliaksandr S Kiryienka and Andrei **Y Khudziakov**

Polotsk State University, Novopolotsk, 211440 Belarus

E-mail s.v.andrievskaya@psu.by

Abstract. The paper examines the relationship between value and life-meaning orientations as well as of motivation for the affiliation of modern students with pedagogical technologies of educational activities. The following pedagogical technologies are considered: the technology of problem-based learning, multilevel learning, game technologies, the project method, learning technologies in collaboration, information and communication technologies in learning. The relationship between students' value orientations and their preferred learning organization technologies has been studied. It was revealed that students with dominant internal values prefer practice-oriented approaches and technologies in teaching. Students with a predominant locus of self-control prefer collaborative learning technology. Students with a high degree of "affiliation motivation" prefer communicative learning technologies associated with teamwork and active communication with peers. The study of personal characteristics and values of students allows organizing more efficient educational activities using new pedagogical technologies.

1. Introduction

In modern education, the personal approach increasingly dominates. In this regard, it becomes important to study the student's personality, value, life-meaning orientations, motivation for the affiliation of a person involved in the learning process. In this case, psychological methods of personality research can become a significant help in organizing educational activities. Knowledge of personal characteristics will allow choosing from a variety of modern pedagogical technologies exactly those that will be most effective for a given personality. In our opinion, the data obtained with the help of psychological methods of studying the personality, its value orientations, motivation should be used to conditionally divide students into groups for which one or another teaching technology is more acceptable.

Nowadays, when higher education has become widespread, many social groups that previously did not have access to higher education have gained it. However, the mass character of higher education has given rise to a number of problems, including: unification, leading to the erasure of personality traits, the presence of averaged assessment criteria, the lack of creativity in teaching, a negative attitude towards the manifestation of personality traits in teaching. At the same time, new educational technologies play an increasing role in teaching students, which requires a change in approaches to the organization of educational activities.

The purpose of the study was to provide an analysis of the possibilities of using some psychological techniques for organizing educational activities using new pedagogical technologies.

Content from this work may be used under the terms of the Creative Commons Attribution 3.0 licence. Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI. Published under licence by IOP Publishing Ltd 1

The object of the research was the possibility of applying knowledge about the value and lefiemeaning orientations of students in educational activities.

The subject of our research included the options for applying psychological knowledge about the personality of a student, in particular, about value and life-meaning orientations for the organization of educational activities and the selection of pedagogical technologies for a particular student.

2. Modern pedagogical technologies

Modern pedagogical technologies are aimed at fostering values such as openness, sociability, benevolence, empathy, mutual assistance and provide the educational needs of each student in accordance with his individual characteristics. They are aimed at developing soft skills in a person. That is why modern educational technologies play an increasing role in the organization of pedagogical activity.

The range of modern educational technologies is wide and diverse. The technology of problem learning is based on the provisions of the theory of psychologist and teacher D. Dewey [1]. Problem-based learning is understood as such an organization of training sessions, which involves the creation of problem situations under the guidance of a teacher and active independent activity of students to resolve them, as a result of which there is a creative mastery of professional knowledge, skills, abilities and the development of thinking abilities [2].

Problem-based learning is based on the creation of a special type of motivation - problematic, therefore, it requires an adequate construction of the didactic content of the material, which should be presented as a chain of problem situations. Problem methods are methods based on the creation of problem situations, active cognitive activity of students, consisting in the search and solution of complex issues that require the actualization of knowledge, analysis, the ability to see a phenomenon, a law behind certain facts. In this method, the ability to compare data is important, analytical skills are important [3].

Multilevel teaching is a pedagogical technology of organizing the educational process, within the framework of which a different level of mastering of educational material is assumed, that is, the depth and complexity of the same educational material is different in groups [4].

The project method is actively used in modern teaching of students [5]. This method came to the post-Soviet space with the beginning of the post-Soviet transformation. The aim of project-based learning is to create conditions under which students: independently and willingly acquire the missing knowledge from different sources; learn to use the acquired knowledge to solve cognitive and practical problems; acquire communication skills by working in various groups; develop their research skills (the ability to identify problems, collect information, observe, conduct an experiment, analyze, build hypotheses, generalize); develop systems thinking [1].

The project method is actively used at Polotsk State University in the framework of students' guided independent work. The accumulated experience of the authors of this article in the application of the project method allows us to notice that the most successful when working with projects are students who not only have the necessary skills, but also have a high level of motivation for affiliation, which contributes to their ability to find mutual understanding when performing a project in a group.

In research activities, the approach is decisive, and not the composition of sources on the basis of which the work is done. The essence of the research work consists in comparing the data of primary sources, their creative analysis and new conclusions made on its basis. Creative activity is an effective means of developing cognitive and research competence. It is necessary to create problem situations where the student shows the ability to combine elements to solve the problem [1]. Elements of students' research activities are present in coursework and projects.

Gaming technologies are interesting for the educational process. Game technologies are associated with the game form of interaction between the teacher and students through the implementation of a certain plot (games, business games). At the same time, educational tasks are included in the content of the game. In the educational process, entertaining, theatrical, business, role-playing, computer games

are used [1]. Game learning technologies can be useful for students with high affiliation motivation. Gaming technologies can facilitate socialization processes [6].

Collaborative learning technology is about enhancing the social skills of students. Collaboration is interpreted as the idea of joint learning activities [1]. The essence of the individual approach is to go not from the academic subject, but from the personality to the academic subject, to go from the possibilities that the person has to apply psychological and pedagogical diagnostics of the personality. Cooperation technologies include any work in a team, where each student shows his talents and personal characteristics [7].

Information and communication technologies are an important element of modern education [1]. Information and communication technologies in teaching is the use of computers and telecommunications for the implementation of information processes in order to efficiently and efficiently work with information in the learning process [8]. The introduction of these technologies is actively carried out at the Polotsk State University. In particular, Google classroom is used when working with students of both full-time and part-time education. In the educational process of Polotsk State University, the Microsoft Teams service is also widely used, which made the learning process more interactive and technological. However, there are certain difficulties in the application of all the above educational technologies. On the basis of Polotsk State University, no such studies have been carried out, but there is data from researchers from other organizations.

In particular, according to E. I. Dmitriev, a researcher from the Republican Institute of Higher Education, the latest educational technologies are widely used in modern universities in Belarus. However, this researcher gives the "index of illegitimacy" of innovative educational technologies (the sum of those who do not apply and apply from case to case, as a percentage of the total number of respondents). According to the data provided by the researcher E.I. Dmitriev, he compiled: case method - 84.2; method of active lectures (lecture-hypothesis, lecture-consultation, lecture-discussion) - 52.7; business game - 80.0; colloquium - 46.3; small group method - 63.2; round table (forum) - 81.1; press conference method - 92.7; rating system for evaluating abstracts (tests) - 57.9 [9].

The author believes that innovative educational technologies are not actively used in the modern educational process. Perhaps the way to expand their application is to focus on the study of the personal characteristics of students and the selection of a personal set of learning technologies suitable for each student. It is possible that the student could choose from a certain ready-made set. Thus, the following of the educational process is realized not from the teacher (who previously proposed both the method and technology), but, on the contrary, from the needs and requests of the student [9]. Added to this is the need for a preliminary study of the student's personality.

3. Description of psychological techniques used

In this study, the following methods were used: the methodology of O. I. Motkov and T. A. Ognevoy "Value orientations" [10], Test of meaningful life orientations by D. A. Leontiev [11], A. Mehrabyan's method as modified by M. Sh. Magomed-Eminov "Motivation of Affiliation" [12].

When creating the methodology, O. I. Motkov and T. A. Ogneva relied on the theory of selfdetermination of personality by E. L. Disi and R. M. Ruayana [10]. According to this theory, the greater manifestation of external or internal values is associated with the degree of satisfaction of the basic, initially existing, psychological needs of the individual: in autonomy (independence and independence), in competence and efficiency, in significant interpersonal relationships. "Autonomy is understood as the perception of one's behavior as consistent with one's own interests and values, autonomy is based on support and lack of control from other people. The need for competence is the tendency to master your environment and to be effective in it; it is supported by an environment that puts forward tasks of the optimal level of complexity for a person and gives him a positive feedback "[10]. The need in connection with others refers to the desire for closeness with other people; it develops if a person receives warmth and care from others. M. Lynch believes that the quality of interpersonal relationships among young people depended on the extent to which their basic needs "were satisfied within the framework of these relationships [13].

Poor satisfaction of basic psychological needs leads to the development of anxiety, problems with the psychological health of the individual, to the development of a greater orientation towards the external values of visible well-being and to a partial devaluation of internal values. The predominant orientation towards external values is a kind of manifestation of psychological protection and the desire for self-affirmation in society (if you cannot establish yourself in the family, then I will try - in society). Negatively the satisfaction of basic needs is influenced by the tightly controlling, emotionally cold, indifferent style of relations between parents and teachers towards children, moreover, in any culture [10].

External values orient a person mainly towards attitudes towards himself on the part of others and an assessment in the social environment of his significance, i.e. selfish social self-affirmation. While internal values focus more on the significance of the other in the social environment, in addition, on the development of the inner personal world and its self-expression in creativity, on a disinterested and aesthetic value attitude towards nature. Those, internal values are much broader and more altruistic than external values. The methodology also provides for the definition of the conflict of values in the individual [10].

The test "Life-meaning orientations" (method of LMO) of D. A. Leontyev allows one to assess the "source" of the meaning of life, which can be found by a person either in the future (goals), or in the present (process) or past (result), or in all three components of life [14].

The LMO test is an adapted version of the Purpose-in-Life Test (PIL) of James Crumbaugh and Leonard Maholick. The technique was developed on the basis of the theory of striving for meaning and logotherapy by Viktor Frankl and pursued the goal of empirical validation of a number of concepts from this theory [15].

Based on factor analysis adapted by D.A. Leontyev's version of this methodology was created by the LMO test, which includes, along with the general indicator of the meaningfulness of life, also five subscales reflecting three specific life-meaning orientations (goals in life, richness in life and satisfaction with self-realization) and two aspects of the locus of control (locus of control-I and locus control-life) [11].

The LMO test contains 20 pairs of opposite statements reflecting the idea of the factors of meaningfulness in the life of an individual. In the LSS test, life is considered meaningful in the presence of goals, the satisfaction obtained in achieving them and confidence in one's own ability to set goals for oneself, choose tasks from cash, and achieve results. It is important to clearly correlate goals - with the future, emotional saturation - with the present, satisfaction - with the achieved result, the past [14]

The situation provides each person with the opportunity to make a certain choice in the present in the form of an act, action or inaction. The basis for such a choice is a formed idea of the meaning of life or its absence. The totality of carried out, actualized choices forms the "past", which is invariable; only its interpretation is subject to variations. The "future" is a set of potential, expected results of efforts made in the present, in this regard, the future is fundamentally open, and different options for the expected future have different motivating attractiveness.

Despite the small volume of the questionnaire (20 items), factor analysis identified six factors, five of which (with the exception of the second) are well interpreted, include with a weight of at least 0.40 from 4 to 6 items each and significantly (p < 0.01) correlate with the general indicator of the meaningfulness of life. The results obtained during factorization make it possible to assert that the meaningfulness of a person's life is not an internally homogeneous structure. The obtained factors (with the exception of the second) can be considered as components of the meaningful orientations: goals in life, richness in life and satisfaction with self-realization. It is easy to see that these three categories are related to purpose (future), process (present) and result (past). As it is clear from the given data, a person can draw the meaning of his life either in one, or in another, or in the third (or in all three components of life) [11].

In developmental psychology, youth is characterized as a period of formation of a stable system of values, the formation of self-awareness and the formation of the social status of an individual. This is

the path to the future that the person chooses. The choice of the future, its planning is a characteristic feature of student youth. Young people have a strong motivation to communicate [16].

G. Craig and D. Bokum believe that the central problem of the previous adolescent period - the definition of identity - can persist in early adulthood, giving meaning to the integrity of adult experience [17]. According to E. Erickson, the crisis of intimacy and isolation is the most typical problem for the period of "early adulthood", which includes some students [18]. Intimacy implies the establishment of a mutual intimate relationship with another person, isolation - the inability or failure to establish reciprocity. In this context, for a young person, the motivation of affiliation becomes the leading one [19].

To diagnose the students' desire for affiliation, A. Mehrabyan's methodology was used in the modification of M. Sh. Magomed-Eminov "Motivation of Affiliation", which is designed to diagnose two generalized stable motivators included in the structure of motivation for affiliation. H. Heckhausen calls affiliation among social motivations, such as child and parental love, love for a spouse, friendship, seeking and maintaining good relationships with previously unfamiliar people of both sexes and about their age, which is relevant for students [16]. All methods are valid and reliable.

4. Research procedure and results

A sample of students n = 92 of Polotsk State University was investigated. The study was conducted anonymously and on a voluntary basis. At the second stage, students with a high level of affiliation motivation (n = 45) were studied. The Spearman rank correlation coefficient was used.

A weak positive correlation was found between the scale "Locus of control - life" of the Test of Life-Meaning Orientations of D. A. Leontiev and the scale "The Significance of External Value Orientations" of the Methodology "Value Orientations" of O. I. Motkova, T.A. Fire (r = 0.2). The level of conflict in the implementation of external values among the studied students is low.

Based on the fact that Locus-control is a personal characteristic, it can be argued that students are at the stage of youthful socialization and tend to attribute their failures and successes to the intervention of external forces or circumstances. The respondents rarely take into account their shortcomings in their activities, including educational ones, trying to transfer responsibility to others. The importance of internal value orientations (4.41) significantly exceeds external ones (3.44), which emphasizes the external orientation of first- and second-year students, for whom it is important to establish close friendly relations, maintain collective foundations and traditions.

Based on the widespread position that the value orientations of a person are based on a person's orientation towards an actual value or a group of values, we will cite the position of B. G. Ananyev [20], who believes that the basis for the development of value orientations are formed personal properties, among which he distinguishes motives of behavior, a person's position in life, and so on. B. G. Ananiev [20] focuses on the educational process as an important element of the formation of a person, and, consequently, of her entire psyche, including value orientations [21].

Based on this approach, it can be assumed that the orientation of students to internal value orientations is due to close interaction in the team during the learning process. Consequently, the development of value orientations sets a certain tone for personal growth in the educational environment, defining and concretizing the values that are relevant to students.

Students also show a keen interest in all learning technologies, which are based on active communication with peers. This corresponds to the age-related needs of adolescence, which is characterized by a high degree of motivation for affiliation. According to the second part of our study (n = 45), it is students who are focused on "performance in life" who have a strong motivation for affiliation.

Between the data of the Goals in Life scale of the LMO test and the Fear of Rejection scale of the Affiliation Motivation test by A. Mehrabian there is a moderate positive relationship (r = 0.65, at p <0.05). What educational technologies are most suitable for students with such a combination of indicators? Most likely, these will be technologies designed for work based on an independent search

IOP Publishing

for material and associated with independent planning, namely: the project method, the technology of problem learning.

There is a moderate positive relationship between the data of the Life Process scale of the LMO test and the Fear of Rejection scale of the Affiliation Motivation Test (r = 0.70, at p <0.05).

For students with this combination of indicators, the technologies of "learning in cooperation", multilevel learning are most suitable, since these students, on the one hand, value the process and, at the same time, be afraid of being rejected in communication.

There is a strong correlation between the data on the Life Efficiency Scale of the LMO test and the Fear of Rejection scale of the Affiliation Motivation Test (r = 0.71, at p <0.05). For students with this combination of factors, in our opinion, gaming technologies are suitable (in particular, business games, information and communication technologies).

There is a strong connection between the data on the "Locus of control I" scale of the LSS and the "Fear of rejection" scale of the affiliation motivation test (r = 0.85, at p < 0.05). For this group of students, learning technologies are needed that combine the ability to independently control the process and the result of activities, but at the same time be afraid of being rejected in communication. The problematic method is suitable for them.

For a group of students with a high level of affiliation motivation, learning technologies associated with active communication are preferred.

The effectiveness of life "or satisfaction with self-realization - reflect the assessment of the passed part of life, characterize how students assess the high productivity of this, lived part of it, indicators on the scale on average at the level of 24.4. "Locus-control I" - shows a person's ideas about whether he can build his own life in accordance with his goals and ideas about its meaning - on average, students have it at the level of 19.9 (for men, the average is - 21.13, for women - 18.58), i.e. our subjects "fit" into the mean. "Locus of control Life" (or "manageability of life") - the average values for our subjects were 29.1 - this is also a "normal indicator". The general average values of the LSS of our subjects - 131.9 - are quite high, they are significantly higher than the average for women (95.76), and higher than for men (103.1). Those. The subjects consider their life meaningful, are satisfied with self-realization, the richness of life, therefore, learning technologies that are focused on an independent search for a solution to the problem, for example, the technology of "problem learning", are suitable for this group.

5. Conclusions

Analyzing the experience of using various approaches in teaching, among which we can distinguish problem and project methods, we assume that practice-oriented methods will play a special place in the organization of the educational process for students with predominant internal value orientations. The significance of these methods lies in the ability to work in a team with direct intergroup interaction; allow you to develop a value attitude towards future professional activities; clarify the practical significance of the profession by practicing theoretical knowledge in situations as close as possible to real conditions. For a group of students with a high level of affiliation motivation, learning technologies associated with active communication are preferred.

Consequently, the development of value orientations sets a certain tone for personal growth in the educational environment, defining and concretizing the values relevant to respondents. Students who are focused on the inner values of the individual are more ready to learn using innovative pedagogical technologies.

Student personality research is an important tool for organizing educational activities using pedagogical technologies that are new to the post-Soviet space. In organizing educational activities, one should take into account value orientations, motivation for affiliation and life-meaning orientations of students when choosing a teaching technology.

Acknowledgment

Degree of implementation: the results of this study were used in the state budget theme "Quality of education: problems and tasks of changing the internal environment of a higher education institution",

included in the state register under number 20190587 (registration date 04/11/2019), performed by the Department of Technology and Teaching Methods of Polotsk State University.

The significance of the work: the research results can be successfully used by teachers of a wide range of academic disciplines for the implementation of a personal approach and the introduction of new technologies in the organization of educational activities.

References

- [1] Selevko G K 2020 *Modern educational technologies* Retrieved from: https://moirang.ru/publ/metodicheskie_materialy/pedagogicheskie_tekhnologii/problemnoe_ obuchenie/12-1-0-49
- [2] Chuchalin A I 2006 External evaluation and evolution of specialist training programs at the university *Educational issues* **1** 232
- [3] Lebedev O E 2013 Reflections on the goals and results *Questions of education* **1** 7-24
- [4] Tikhomirova T N, Malykh S B and Kovas Yu V 2012 Individual Differences in Learning Abilities: Opportunities and Prospects for Psychogenetic Research *Educational Issues* **4** 187
- [5] Penkovskikh E A 2010 The method of projects in domestic and foreign pedagogical theory and practice *Educational Issues* **4** 308
- [6] Leutina A L 2014 Socialization of children in modern pedagogical research *Issues of education* **3** 163
- [7] Schleicher A 2012 Teacher as a highly qualified specialist: building a profession. Lessons from Around the World (OECD Report, translated from English by N Mikshina) *Educational Issues* 2 62
- [8] Baskakova M E and Soboleva I V 2019 New facets of functional illiteracy in the digital economy *Educational Issues* **1** 246
- [9] Dmitriev E I 2010 Modern educational technologies at the university: practice and problems of application Management in social and economic systems *Proceedings of the XIX International Scientific and Practical Conference* (Minsk: Minsk Institute of Management) pp 236-7
- [10] Motkov O I and Ogneva T A 2008 Methodology "Value orientations" (Moscow) p 16
- [11] Leontiev D A 2000 Test of life-meaning orientations (Moscow: Meaning) p 18
- [12] Mehrabian A 2012 Affiliation Questionnaire Psychodiagnostics. Personal professional qualities (Rostov on Don: Phoenix) pp 171-7
- [13] Lynch D 2017 Catch a big fish (Moscow: Eksmo) p 176
- [14] Leontiev D A 1988 Structural organization of the semantic sphere of personality (Moscow: MSU) p 24
- [15] Frankl V 2015 Psychotherapy and Existentialism (Moscow: IOI) p 190
- [16] Frankl V 2000 Will to Meaning (Moscow: April-Press) p 368
- [17] Heckhausen X 2003 *Motivation and Activity* (St. Petersburg: Peter Moscow: Meaning) p 860
- [18] Craig G and Bokum D 2010 Developmental Psychology (St. Petersburg: Peter) p 940
- [19] Ericson E 2006 Identity: Youth and Crisis (Moscow: Flinta MPSI Progress) p 352
- [20] Leontiev D A 1993 Essay on the psychology of personality (Moscow: Meaning) p 43
- [21] Ananiev B G 2008 Personality, subject of activity, individuality (Moscow: Directmedia Publishing) p 134
- [21] Karpinsky K V 2012 The meaning of life and resources for its implementation: towards understanding the mechanisms of personal crisis *Psychology* **9(4)** 23