PRINCIPLES AND TECHNOLOGIES OF IMPROVING THE EDUCATIONAL AUTONOMY OF STUDENTS IN THE CONDITIONS OF TWO-LEVEL EDUCATION

Sergey D. Neverkovich1, Elena V. Bystritskaya2, Irina Y. Burkhanova3, Svetlana S. Ivanova4, Ekaterina V. Ignatyeva2

1Russian State University of Physical Education, Sport, Youth and Tourism, Department of Pedagogy, Moscow, Russia, 2,3,4Minin Nizhny Novgorod State Pedagogical University, Department of Physical Education Theoretical Foundations, Nizhny Novgorod, Russia, 5Minin Nizhny Novgorod State Pedagogical University, Department of Theory and Practice of Foreign Languages and Linguodidactics, Nizhny Novgorod, Russia.

Email: 1*neverkovich@mail.ru, 2oldlady@mail.ru, 3irina2692007@yandex.ru, 4svetlana-604@mail.ru, 5kate1606dream@inbox.ru

Article History: Received on 25th July 2019, Revised on 01st September 2019, Published on 09th October 2019

Abstract

Purpose of the study: The urgency of the problem under study is due to the need to ensure the substantial unity of the two stages of vocational education: undergraduate and graduate. In connection with the increase in the proportion and importance of independent learning activities of students, the problem of self-regulation and self-control of students in the organization of this process and the provision of conditions for the formation of educational autonomy of bachelors and undergraduates from the side of university teachers becomes more acute. The aim of the article is to determine the principles and effective technologies of organizing activities for the formation of the educational autonomy of students in a two-level education.

Methodology: The leading principles of the study were the principles of human-like education and student-centered education.

Results: The authors formulated the principles, presented copyright technology to ensure the educational autonomy of students. The results of the use of the technological complex in the framework of the educational activities of physical culture students are indicated. The created scientific and methodological complex allowed to improve the level of self-organization and self-government of students in educational activities.

Applications of this study: Materials may be applied to solve a wide range of vocational education tasks. The results of the study may be applied by teachers of higher education in order to develop the professional creativity of students and the formation of their professional identity.

Novelty/Originality of this study: The problem of the formation of the educational autonomy of students is exacerbated in the conditions of modern higher education due to the increasing proportion of independent work of students and the possibilities of an open educational environment. The originality of the research lies in the development of technology for the use of anthropic educational technologies, focused more on students' activities, rather than regulating the activities of university teachers.

Keywords: educational autonomy, acmeological aspirations, inceptiveness of learning, educational success.

INTRODUCTION

Classical didactics were developed from the position of a teacher as the basis of his professional activity. It comes from the abilities and possibilities of the subject of learning (Levina et al., 2017; Kvon et al., 2018; Drovosekov and Sakhieva, 2018). The theory of developmental education supplemented the scientific arsenal of the teacher with a vision not only of the actual, but also of the closest development of the subject of the teaching and an orientation towards the disclosure of his personal and educational potential (Lebedeva et al., 2018; Dorozhkin et al., 2018; Afriyani et al., 2018). In the case of vocational education, it is also about the disclosure of the student's ability to professional creativity. Ontodidactic supplemented this educational basis with a vision of the process and results of education from the position of a subject of educational activity. A number of studies have shown (Ivanova, 2017; Rodinova et al., 2017; Wang et al., 2018; Bystritskaya, 2018; Prokhorova and Semchenko, 2018; Issaliyeva et al., 2018), this vision has qualitative features in the structure of bachelor and magistracy. Ontodidactic is a branch of a pedagogical science, which studies the inclusion of a person in the research and design of the process of self-education, self-improvement. Ontodidactic formation of the personality culture of the future professional acts in the interrelation of the ideas of nonlinearity, sociocultural openness, internal and external competition, the problematic nature of professional activity and evolutionism.

In the methodology of ontodidactics there are three phenomena that form a person:

- Human logos, as a process and result of the subject’s comprehension of the essence and prospects of development of his personality and activity, which is expressed in the success of educational activities in a broad sense;
- Human nomos, as a project of personal and professional development, which is expressed in the relevant aspirations of the future professional;
− Human tekhnē, as a plan-program for building their own creative personality and the trajectory of individual personal and professional development, which the student establishes independently, initiating for this purpose suitable from his point of view methods of learning activities and requesting relevant content. Such a student’s request for the learning process is called insight.

Building a professional identity and activities in the educational process requires improving the level of self-government functions to ensure his educational autonomy (Yadryshnikov, 2018).

Thus, the purpose of the article is to determine the principles and effective technologies of organizing activities for the formation of the educational autonomy of students in a two-level education.

**METHODOLOGICAL FRAMEWORK**

The formation of educational autonomy of students in a two-level higher education is based on a number of principles, each of which has qualitative features of implementation in the structure of undergraduate and graduate programs.

The first principle of the formation of students' educational autonomy is the principle of superposition of knowledge, the construction of complex competence structures from simple ones. It must be remembered that the union of structures does not boil down to their simple addition, but there is a “rediscovery” of knowledge by a person. The whole is no longer equal to the sum of the parts; it is qualitatively different and is formed not by the principle of a mathematical addition, but by the principle of chemical reaction. In the bachelor's degree, this principle is realized on the basis of the coordination of interdisciplinary elements of knowledge in time and the way of their inclusion in the educational process. This is necessary in order for the bachelors to form a holistic view of their professional activities. In the magistracy, the superposition of knowledge is carried out on the basis of the solution by the undergraduate of a professional personality-significant problem, where, like a drop of water, all the variety of tasks and technologies of his professional activity is reflected. At this stage, the superposition of knowledge is as personalized as possible.

The principle of constructive knowledge design of the research object includes:

− The development of principles and methods of “obtaining” knowledge, reflecting the objective activity (objective reflection), as well as the system of thinking to obtain such knowledge (reflexive methodology);
− The production technology of own thoughts and actions focused on results (“reflection what”) and ways to achieve them (“reflection as”);
− The development of pedagogical knowledge management systems related to the transformation of information into professional-personal competences (reflexive processes of an intellectual search, analysis, synthesis, sampling, classifications, reflecting the specifics of the procedures for creating professional knowledge);
− The amplification of the reflexive-activity experience of the individual (its increase, refinement, transformation, expansion of the boundaries of the objective situation in order to ensure a sufficiently extensive space for self-development).

In undergraduate, the constructive design is largely aimed at an extensive increase in the basis of knowledge and subject-specification reflection, and in graduate programs at the formation of knowledge management and personal development.

The principle of didactic problematization - the problematization of consciousness in order to depromatize the activity of the sphere of consciousness and thinking of an athlete contributes to:

− Ideological search - the formation of dominant values,
− Cognitive search - search for new knowledge,
− Personalized search - the vector of individual orientation in the professional space of activity and in broad society,
− Technical and technological search - search for tools for the implementation of professional educational activities,
− Reflexive search - generalization, and systematization of the experience of activity search for the necessary solution.

In the undergraduate degree, the substantive and technological aspect of searching and solving problems is realized to a greater extent, or, according to P.Y. Halperin, the performing base of action, and in magistracy - value-semantic search, which reflects the picture of the formation of professional individuality.

The principle of a purposeful figure, realized in the process of learning, implies following the principle of scientific character in the learning process that the subject content of instruction should include not only the knowledge that is well-established in science but also the futurological problems of modern science, revealing the prospects for its development, provided that spiritual culture of an athlete (natural science, social studies, ethics, aesthetics, and theory of activity). Didactic material is developed taking into account the vector of further professional and personal development.

The result of applying this principle is the formation of a student:
- Actions;
- Thoughts;
- Methodological and technological elements (strategies, principles, methods, methods of action).

This principle is the basis for the formation of the educational autonomy of the student, and in the bachelor’s degree is mainly substantive in nature, and in the magistracy, it is a meta-subject problem.

The principle of value-oriented self-management by an athlete with his personality and activity is implemented by the students themselves in response to the use of the principle of the humanistic nature of training addressed to him. In ontodidactic, the process of reaching a higher level of organization of one’s consciousness, thinking and control of activity — the self-creating level — acts as a substantial dominant of the being of a personality. At this level, subjects of education can be authors of their activities, and not act on other people's scenarios. Two types of activities coexist in the training system.

- Target-rational activity, determined by objectively set goals;
- Value-rational activity, determined, for the most part, by the values of the individual, in which the goal is not achieved, but controls the process of achieving the result.

This principle, as the main one, which reveals the technological map of the formation of students' educational autonomy, shows the importance of such anthropo-constructions as goals and values in the success of the educational process. In this case, the first prevail among bachelors, the second among undergraduates.

The principle of universal dialogue with sociocultural educational space is manifested in the correlation of the two sides of their educational "I" by the student:

- “I-the knower” is an awareness of reality, of the world around and within oneself;
- “I-knowable”, when a person himself is subjected to reflection. Reflects everything that matters for the subject-actor and, above all, the mechanisms and results of their objective actions.

The interaction of subjects of education includes:

- Social perception - evaluation and understanding of oneself, other people and social phenomena;
- Interpersonal communication - the process of exchanging messages and their interpretations;
- Interaction - personal and intercultural interaction and interaction of subjects in communication, exchange of thoughts, feelings, and actions;
- Transaction - the desire of a person to mutual understanding, coordination of attitudes of the individual and the activities of subjects of education under the influence of a situation or the role that a person plays;
- The level of ego-identity;
- Cognitive and causal self-attribution;
- Interpersonal perception, self-perception;
- Interpersonal attractions - attraction, proximity to the partner;
- Intellectual and spiritual mutual enrichment.

Based on these principles, the need to develop a technological complex that makes it possible to form students' educational autonomy in the whole complex of its characteristics becomes obvious.

RESULTS

Experimental activity on the formation of educational autonomy of students on the basis of the principles presented using a set of anthropic educational technologies was carried out during 3 academic years from 2015 to 2018 on the basis of Minin Nizhny Novgorod State Pedagogical University and Russian State University of Physical Education, Sport, Youth, and Tourism.

340 bachelors and 94 undergraduates of the departments "Teacher Education" and "Psychological and Pedagogical Education" took part in the experiment.

The following anthropic educational technologies were used as technologies to form educational autonomy of students: prognostic reflection, reflexive mirror, collective portfolio, organizational learning games, dialogue with the original source, interactive commented educational situations, aporetic techniques, and integrative design sketch.

The following methods were used as research:
To assess the educational success of students - the study of student creative works, essays and portfolios;

To determine the level of acmeological aspirations - a study of professional concentration, the level of motivation to achieve success and the severity of the internal locus of control.

To identify the inspectorate nature of education - registration of methods and technologies chosen by students for self-organization in the context of independent learning activities.

During the study, it was determined that the initial level of educational autonomy of students in the three presented indicators has a level below the average, both in undergraduate and graduate programs, as shown in Figure 1.

![Figure 1](image)

**Figure 1:** Baseline indicators of educational autonomy of bachelors and undergraduates of physical education profiles of the pedagogical area (in points)

As can be seen, from the data presented in the diagram, undergraduates have a slightly higher level of educational autonomy, however, and they have the potential to develop self-management functions in education by increasing the level of insecurity and higher involvement in their education.

Bachelors noticeably have higher academic success than other indicators of autonomy. From this it becomes clear that the main task of forming the educational autonomy of bachelors is to adapt them as quickly as possible in the professional environment and to acquire their professional credo, as was shown by a number of researchers (Chelnokova, Agaev, and Tyumaseva, 2018), educational success also increases. Such adaptation contributes to the development of acmeological aspirations.

For undergraduates, the most important task is to create the conditions for the selection of the means, methods and information portals for the development of inceptivity of education. To do this, university teachers will have to show graduate educational tools to undergraduates.

During the implementation of such activities, the technology of the “reflective mirror” was the most popular among bachelors, allowing bachelors to perceive themselves and their activities from the perspective of the professional community. This contributed to the change of their professional concentration from egoistic or altruistic to subject-oriented, that is, it helped to create the foundations for professionally significant acmeological aspirations.

In practice, the “collective portfolio” of a group or brigade allowed organizing cooperation and, within certain limits, increasing the level of motivation to succeed, which is another basis for the necessary acmeological aspirations.

“Organizational and educational games” are of interest as a technology for the direct inclusion of bachelors in the process of solving real professional problems, which has a positive effect on the formation of their internal locus of control as another significant indicator of positive acmeological aspirations.

“Dialogue commented educational situations” allowed to increase both the academic success of the students and the insecurity, as well as provide an opportunity for students to better feel and understand the process of their education.

The “integrative sketch-project”, which is aimed at solving socially important professional problems, included bachelors through professional activities in a wide society and gave them the opportunity to experience the socio-cultural significance of their future professional activities. It was also possible to orient the bachelors in what methods of study and information portals it is better to choose to improve their social status and the status of their profession. On the basis of this, conscious inceptivity of their formation began to take shape.
The following anthropic technologies were the most popular among undergraduates and with a conscious choice. “Predictive reflection” allowed undergraduates to practice educational and professional predictions and select for themselves the methods of activity and the necessary information in advance for the future, which contributed to the development of the insularity of their education.

“Organizational and educational games” conducted in the framework of the magistracy in addition to the previous technology contributed to the expansion of the professional vision of the tasks of their work by students and taught them to attract non-specialized information, interact with a wide range of professionals, engage in dialogue in the interdisciplinary educational space. Thus, having become more involved in the sociocultural space as professionals, they perfected the criteria for a conscious selection of the choice of subjects and objects of their professional interaction.

“Dialogue with the original source” turned out to be the most significant for expanding the range of information portals, applicable, according to undergraduates, to ensure the effectiveness of professional activity, for their examination of information contents in order to solve professional and educational problems, to form a reflective basis of professionally relevant information. This technology works directly to increase autonomy and the formation of a sense of self-confidence among undergraduates.

“Aperture of aporetics”, like any work in the problem field of activity, allowed undergraduates to reveal the essential elements and relationships in a multifaceted educational process and professional activity and allowed them to separate the main from the secondary, the images from the real, the external from the internal.

"Integrative sketch-projects” play a different role in relation to undergraduates, rather than bachelors. Developing and executing these projects, undergraduates from the experience of a sociocultural polyvalent dialogue not only in the professional sphere but also in other spheres of life, while expanding the information space of seeing the problem through interdisciplinary, interdisciplinary connections.

The result of the application of these technologies in the conditions of graduate and undergraduate studies was the following dynamics of indicators of students’ autonomy (Figure 2).

![Figure 2: The final indicators of educational autonomy of bachelors and undergraduates of physical education profiles of the pedagogical direction (in points)](image)

As can be seen from the presented data, the indicators of educational success in both experimental groups tend to increase, although they increased slightly. At the same time, all indicators of autonomy for both bachelors and undergraduates exceeded the threshold values of the average level. The only exception was the position of insecurity in the undergraduate degree, which is quite understandable from the standpoint of the logic of the organization of educational activities at this level of higher education. The maximum growth of 43.9% was a change in acmeological aspirations among bachelors and an inceptivity of educational activities among undergraduates increased by 73.6%, which was the aim of the implementation program for anthropic educational technologies.

In the course of the experiment, in addition to factors that positively affect the formation of educational autonomy of bachelors and masters, barriers to this process were identified. They are presented in table 1.
To the greatest extent, the bachelors expressed the following barriers to the formation of educational autonomy as a poor material and technical base, low level of authority and conflict relations with students, and undergraduates – poor material and technical base, the mismatch of labor and remuneration and low success of their activities. However, all these barriers were not insurmountable for the development of the educational autonomy of students in the application of the program of anthropic educational technologies.

**DISCUSSIONS**

Application of technologies of anthropic education proved to be effective not only in relation to the formation of educational autonomy of students but also to expand the educational potential of higher education in General. Thus, we give examples of their application in specific types of educational process at the University.

Anthropic educational technologies are the process and the result of the implementation of integrated learning models, in which the student's personality acts as a self-regulating system, determined by its own physical, psychological and sociocultural potential, and the teacher acts as a coordinator of ideological, cognitive and technological processes, interpreter of special and pedagogical knowledge, providing identification of students. The General trend is modified with interiorization values on sense building personality, formed “the competence to update competencies” and social and cultural openness to improve further activities.

**Prognostic reflection** - the divination of other people’s thoughts and actions is the result of a systematic analysis of the properties of the educational space. Collective forms of activity organization contribute to productive subject reflection (Zankov, 1999). In this case, students go through the stages of multiple changes of cognitive position to know themselves through another and analyze his actions from his and his point of view. The use of this technology is justified where there is a place for educational discovery. In particular, when cross-pedagogical commenting on situations, texts, as well as mutual reflection. This technology is easily converted into a professional Arsenal of physical education teacher and sports coach. In particular, it is repeatedly used in the organization of activities of the regional sports and educational cluster on the basis of the rhizome management model, as for the deployment of activities and the formation of the educational autonomy of students of the pedagogical profiles of the pedagogical and technic base, the mismatch of labor and remuneration and low success of its activities. However, all these barriers were not insurmountable for the development of the educational autonomy of students in the application of the program of anthropic educational technologies.

| Barriers to the formation of students’ educational autonomy | Bachelors | Undergraduates |
|-----------------------------------------------------------|-----------|----------------|
| Lack of demand in the profession                          | 25.23±1.75| 17.82±1.78     |
| Poor material and technical base                          | 48.26±5.18| 46.19±4.14     |
| Lack of positive contact with the administration and colleagues | 12.8±1.11 | 19.26±0.75     |
| Conflict relations with students                          | 38.45±4.23| 11.36±1.28     |
| Lack of academic and psychological training to build a career | 23.16±3.34| 16.23±1.89     |
| Deception of positive expectations in the profession      | 15.67±1.32| 14.65±1.27     |
| The low success of its activities                         | 23.1±3.13 | 26.38±4.12     |
| Low level of authority                                    | 31.2±4.27 | 17.15±3.57     |
| The discrepancy between labor costs and remuneration      | 22.14±2.78| 43.76±6.73     |
| Noncompliance of the creativity to requirements of a profession | 19.87±2.7 | 8.16±0.96      |
| Personal responsibility for their actions                 | 21.72±2.15| 18.91±2.11     |

Table 1: Barriers to the formation of educational autonomy of students of physical education profiles of the pedagogical direction (in points)

The qualitative features of the rhizome organizational structure of the regional sports and pedagogical cluster are as follows:

- «Rhizomatic eventuality» in the education system allows us to see the nonlinear development of socio-cultural phenomena, especially intellectual creativity;
- «Rhizomatic event fullness» is implemented on the basis of inceptively, that is initiated by the subject;
- There are no «white spots» and «blind spots» of the process in the rhizomatic organization of activity, polypositionality allows you to see the process simultaneously «inside» and «outside»;
- New organizational structures (project teams, committees, associations, centers) are formed for specific target results);
- Forecasting is not probabilistic, but rather a defining character on the basis of socio-cultural paradigms, which allows managing the process under conditions of fundamental uncertainty.

**Reflective mirror**: In the course of self-diagnosis and interdiagnostic among students formed an adequate image of “I-mirror” and there is a comparison, correction in connection with the images of “I-real” and “I-perfect”. Here, educational mentors of foreign and Russian students give recommendations on the construction of an educational trajectory to their classmates, but not at the level of common sense and the results of subjective observation, but on the basis of objective results of three-dimensional monitoring of health.
Collective portfolio or portfolio of the group, teams of trainees includes a description of successes and ways to achieve them. Let us consider the practice of FPES as a rhizome module in the structure of the regional cluster and only one direction of its work is the inclusion of students in the sports infrastructure of the region.

Action 1 – the student falls into the hands of students and graduates of FPES in its educational organization, which receives information about existing in its area and in other areas of sports clubs, sports and recreation complexes and sent to FPES to diagnose sports abilities and inclinations

Action 2 – the student is in the laboratories of the scientific and educational center and under the guidance of students and undergraduates who are there in practice is a psychological and pedagogical examination in the laboratory, where he receives specific recommendations for inclusion in the sports infrastructure

Action 3 – the student is in the sports complex, section and receives information about sports competitions, the audience of which could be, and is also included in sports infrastructure on-line and off-line, etc.

Action 4 – at the stadium "Nizhny Novgorod" as volunteers are students practice, which also includes the student and his parents, with whom he attends competitions in sports infrastructure on-line and off-line, etc.

It is clear that the procedure for these actions is conditional, and the multipolarity of such information involves the most complete identification of sports talents and the inclusion of children in sports and recreation and sports activities in the region. For the students themselves, who have the right to choose not only the place of practice but also the functionality, tasks for practice, this rhizome is as follows:

This activity allows you to implement:

- The reflexive search process, which cannot be completely reduced to the logic of the object;
- Needs and installations of subjects on self-building of the personality and realization of individuality in society;
- Act of creativity, its process, mechanism, and result;
- Dominant on the constructive, not on the evolutionary process;
- Ability to create in society a personalized product based on the ability to address me to another person, find another, to carry out interpersonally in operation.

Organizational and educational games are implemented as a technological basis for the process of training of sports coaches in the framework of network cooperation between the University and sports federations. The purpose of this work is to highlight all aspects of the problem and show it in a more holistic way, from different positions.

Another form of application of this technology is project-oriented educational practice. Its result is the students’ awareness of the needs of society in their professional, sports and personal achievements.

Dialogue with the original source. The source can be any information content. We have developed the site called "3 youth" for persons of mature age with recommendations, workshops, and blogs to improve efficiency in connection with the raising of the retirement age. Its target audience is people in the labor and post-labor stages, and the educational goal of its creation was to organize an absentee dialogue of generations and familiarize students with the category of people who will be their clients in sports clubs and with their future.

At first, these can be simple educational tasks, such as: “ask the author five questions,” “argue with the author,” etc. Then we intensify the dialogue, make it more profound and focused, raising problematic and aporetic questions, such as “why did the author consider it necessary to write this article?”, “For whom did he write it, for you or for someone else?”, “And maybe it wasn’t worth writing it?”, “What did he mean, saying that ...?”, “where and how can you use the author’s conclusions? ”.

This technology helps the student to create a model of his desired future and determine the way how to put this model into life, the achievements of the results contained in it.

Interactive commentary learning situations. This technology is the synergistic unity of problem-based learning and pedagogical commenting. The solution of situations and cases is commented by other students not from the point of view of rationality of the decision, but from the position of what abilities and mental operations the speaker uses in this activity. An example of the implementation of this technology is the discussion of the consultation plan for parents of younger students on the basis of the author’s textbook “Meet Your Child”, the task of which is to synchronize the efforts of family and school on physical education and education of the child. Some students predict possible questions, objections, suggestions of parents and teachers about the theme, others find answers to them and offer the content and form of consultation on this topic, taking into account the personal abilities of each student.

Aporetic methods are the technology of mastering students the art of asking problematic and paradoxical questions. As practice has shown, most completely this technology is implemented at the magistracy. In particular, one of the tasks of the meta-subject practice of undergraduates is the search and disclosure of contradictions in the structure of the training
process, in the structures of the personality and the activities of athletes. Such work makes undergraduates take a deeper look at the process of their professional activities and highlight it in the deep, often interdisciplinary, seemingly unobvious patterns, teach them to work in a situation of uncertainty, stress, which is an integral component of sport.

Integrative sketch-project. The sketch-project represents the fragments, phenomena, problems, tasks as if deliberately taken from the integral pedagogical process. The goal of these technologies is to show that in every pedagogical phenomenon, as in a drop of water, the goals, patterns, principles of the pedagogical process (the study of the whole in its part) are reflected. This technology is a substantive and functional basis of the regional innovation platform "Forming congruent health of preschoolers in general physical training with elements of tennis." Here, a single sport serves as the basis of artistic creativity, choreography, literary activity and the competitive process itself. At the same time, motor actions assimilated by preschool children and the attitude of children towards them can be the basis for targeted breeding work for sending children to sports clubs.

CONCLUSION

As a result of the study, the following principles of the formation of students' educational autonomy in a two-level higher education were identified, among which the principles of a purposeful person and value-oriented self-government are basic. The criteria for the formation of students' educational autonomy were identified and methods for evaluating students' academic success, determining the level of acmeological aspirations and identifying the inspecting nature of education were proposed. It was found that undergraduate students have less developed such an indicator of educational autonomy as acmeological aspirations based on high motivation to achieve success, the internal locus of control and true professional-pedagogical centering. In the magistracy, with an average level of acmeological aspirations and an optimal level of academic success, the abilities to consciously choose the means and methods of self-education are much less developed.

It was proposed to apply anthropic teaching methods to ensure the formation of the educational autonomy of students. The work was organized on the basis of the students' freedom of choice of forms and methods of educational activities, and it was determined that reflexive technologies turned out to be the most effective and relevant in terms of undergraduate and bachelor programs, as well as the technology of organizational learning games and integrative sketch-projects, which confirms the opinion of many authors project activities both in education and in the professional environment. The technology of play-acting, which has a significant impact on those indicators of autonomy, which, according to the results of the asserting study, are less developed, were the most demanded by bachelors. Magistracy students selected technologies that most influenced the development of their inceptivity and the provision of information and technology educational activities on the principle of redundancy.

Also in the course of the experiment, there were discovered some barriers that reduce the effectiveness of the formation of students' educational autonomy. For bachelors this is a poor material and technical base, a low level of authority and conflicting relations with pupils, and for magistracy students - a poor material and technical base, a discrepancy in labor costs and remuneration and low success of its activities.

Thus, the goal of the research, which was to determine the principles of organizing activities for the structuring of effective technologies for the formation of educational autonomy of students in a two-tier education environment, was achieved.

RECOMMENDATIONS

The use of anthropic educational technologies must be implemented to solve a wide range of educational tasks. They can be implemented both in independent educational activities of bachelors and magistracy students and in the organization of the educational process by university teachers. They can be useful for postgraduate education and self-education of a teacher in the context of professional self-realization, they can also allow school teachers and university teachers to create conditions to correct the gaps in their own education for students. Also, anthropic educational technologies can be useful to teachers of advanced training courses with a shortage of time to study certain topics, and they can become the basis of creative workshops, master classes, and professional training. The importance of anthropically organized learning activities is particularly high for the formation of students' educational autonomy, which contributes to the improvement of the professional competence of graduates of both bachelor and magistracy programs.

ACKNOWLEDGMENT

The authors of the study express their deep gratitude to Alexander Alexandrovich Fedorov, the rector of the Minin Nizhny Novgorod State Pedagogical University, and Tamara Viktorovna Mikhailova, the rector of the Russian State University of Physical Education, Sport, Youth and Tourism for the full support of the study.

REFERENCES

1. Afriyani, D., Sa’dijah, C., Subanji, S., & Muksar, M. (2018). Characteristics of Students’ Mathematical Understanding in Solving Multiple Representation Task based on Solo Taxonomy. International Electronic Journal of Mathematics Education, 13(3), 281-287. https://doi.org/10.12973/iejme/3920
2. Burkhanova, I.Y. (2017). Dialogue educational technologies in metasubjectival competence development of master-students. Modern knowledge-intensive technologies, 4: 75-79.
3. Bystritskaya, E.V. (2018). Models of master’s degree theoretical research in Russia and the USA. Astra Salvensis, Supplement 2/2018: Proceedings of the —IV International Forum on Teacher Education, pp. 115-124

4. Chelnokova, E.A., Ageev, N.F., and Tyumaseva, Z.I. (2018). Formation of students’ motivation for physical culture and sports in higher education. Vestnik of Minin University, 6(1): 6. URL: http://vestnik.mininuniver.ru/jour/article/view/755. https://doi.org/10.26795/2307-1281-2018-6-1-6

5. Dorozhkina, E.M., Kalimullin, A.M., Migacheva, G.N., and Sokolova, T.B. (2018). Optimization of the Subject Matter of Profile Training Disciplines for Bachelors’ Vocational Education on the Basis of Occupational Standards. EURASIA Journal of Mathematics, Science and Technology Education, 14(3): 859-876. https://doi.org/10.12973/ejmste/81059

6. Drovosekov, S.E. and Sakhieva, R.G. (2018). Peculiarities of Using Projects in Learning English as a Foreign Language. XLinguae, 11(1): 91-101. https://doi.org/10.18355/XL.2018.11.01.09

7. Issaliyeva, A., Osanova, A. N., & Alibekul, A. (2018). Kazakhstan and GCC: Islamic component in joint collaboration. Opción, 34(85-2), 205-220.

8. Ivanova, S.S. (2017). Problems of professional activity of the teacher of physical culture in the polytechnic educational organization. Eurasian journal of analytical chemistry, 12(7): 1615-1620. https://doi.org/10.12973/ejac.2017.00292a

9. Kvon, G.M., Vaks, V.B., Masalimova, A.R., Kryukova, N.I., Rod, Y.S., Shagieva, R.V., and Khudzhatov, M.B. (2018). Risk in Implementing New Electronic Management Systems at Universities. EURASIA Journal of Mathematics, Science and Technology Education, 14(3): 891-902. https://doi.org/10.12973/ejmste/81060

10. Lebedeva, O., Bykova, S., Masalimova, A.R., Sokolova, N.L., and Kryukova, N.I. (2018). Peculiarities of developing high school students’ lexical skills by means of the programmed learning technology. XLinguae, 11(1): 186-202. https://doi.org/10.18355/XL.2018.11.01.16

11. Levina, E.Y., Masalimova, A.R., Kryukova, N.I., Grebennikov, V.V., Marchuk, N.N., Shirev, D.A., Renglkh, K.A., and Shagieva, R.V. (2017). Structure and Content of e-Learning Information Environment Based on Geo-Information Technologies. EURASIA Journal of Mathematics, Science and Technology Education, 13(8): 5019-5031. https://doi.org/10.12973/eurasia.2017.00974a

12. Prokhorova, M.V., and Semchenko, A.A. (2018). Involving of trainee-future teachers of professional training in project activities in the discipline. Vestnik of Minin University, 6(2): 6. URL: https://vestnik.mininuniver.ru/jour/article/view/809. https://doi.org/10.26795/2307-1281-2018-6-2-6

13. Rodinova, N.P., Zaitseva, N.A., Ostroukhov, V.M., Dibrova, J.N., Larionova, A.A., and Yazev, G.V. (2017). Application of the competency model for assessing the effectiveness of the organizational structure in commercial organization. Man in India, 97 (15): 331-341.

14. Yadryshnikov, K.S. (2018). Case-Technology Functions In College Student Vocational Training Modern journal of language teaching methods, 8(3): 305-316

15. Wang, S., Gorbunova, N.V., Masalimova, A.R., Bírová, J., and Sergeeva, M.G. (2018). Formation of Academic Mobility of Future Foreign Language Teachers by Means of Media Education Technologies. EURASIA Journal of Mathematics, Science and Technology Education, 14(3): 959-976. https://doi.org/10.29333/ejmste/90556

16. Hannum, W. H., Irvin, M. J., Lei, P. W., & Farmer, T. W. (2008). Effectiveness of using learner-centered principles on student retention in distance education courses in rural schools. Distance Education, 29(3), 211-229. https://doi.org/10.1080/01587910802395763

17. Sahilberg, P. (2007). Education policies for raising student learning: The Finnish approach. Journal of education policy, 22(2), 147-171. https://doi.org/10.1080/02680930601158919

18. Haerens, L., Aelterman, N., Vansteenkiste, M., Soenens, B., & Van Petegem, S. (2015). Do perceived autonomy-supportive and controlling teaching relate to physical education students' motivational experiences through unique pathways? Distinguishing between the bright and dark side of motivation. Psychology of sport and exercise, 16, 26-36. https://doi.org/10.1016/j.psychsport.2014.08.013

19. Barabanova, S. V., & Ivanov, V. G. (2012, September). Characteristics of training and raising qualification of modern engineering university faculty: Experience of a Russian national research university. In 2012 15th International Conference on Interactive Collaborative Learning (ICL) (pp. 1-3). IEEE. https://doi.org/10.1109/ICL.2012.6402087

20. Haerens, L., Aelterman, N., Van den Berghe, L., De Meyer, J., Soenens, B., & Vansteenkiste, M. (2013). Observing physical education teachers’ need-supportive interactions in classroom settings. Journal of Sport and Exercise Psychology, 35(1), 3-17. https://doi.org/10.1123/jsep.35.1.3

21. Atweh, B., Bland, D. C., Carrington, S. B., & Cavanagh, R. (2008). School disengagement: Its constructions, investigation and management.