

VI International Forum on Teacher Education

Identification, Justification and Concretization of the Basic Skills of Self-Organization

Chulpan I. Nizamova* (a), Alisa E. Kolochkova (b)

(a), (b) Kazan Federal University, 420008, Kazan (Russia), 18 Kremlyovskaya street, Chulpannizamedin@gmail.com

Abstract

Self-organizational skills are important in the life of each individual, regarding any sphere of life: training, professional activity, personal life. Self-organization is becoming one of the most sought-after qualities of future specialists and professionals. As Kozlovskaya underlines: "A student who does not know how to organize personal time can not only fully study, but also cannot become a full-fledged specialist and participant in the labor market, since a university student must organize his work himself, plan his studies himself, and distribute workloads himself".

As can be seen from the root-forming words "self" and "organization", self-organization contributes to the streamlining and organization of actions to achieve the goal. Self-organization in educational activity organizes a student to self-education. As a rule, self-education refers to the group of general cultural competencies included in the Federal State Educational Standards of Higher Education, and is referred to the information-cognitive competency (OK-5), which consists in the learner's ability to independently acquire and use new knowledge and skills related to professional activity. In view of the tendency to increase the time allocated for independent study of hours in higher education curricula, the problem of the development of self-organization among students becomes especially topical.

The aim of the article is to identify, theoretically substantiate and specify the skills of self-organization.

This article discusses the structure and structural components that make up self-organization, and based on this, the basic skills of self-organization are formed. To achieve the goal, the following tasks were set:

1. To form a structure of self-organization;
2. Form the structural components of self-organization;
3. Establish self-organization skills according to its structure and components.

In the article there were nine stages of self-organization revealed, included in six structural components: a diagnostic component - introspection, analysis of the situation, goal-setting; a design component - planning; a substantial component - the implementation of the plan; a reflective-evaluative component - reflection, assessment, adjustment; a volitional component - forward movement; a component of a complex of self-processes - accompanies the entire process of self-organization. The basic skills of self-organization are: to analyze, to set goals, to plan, to motivate yourself, to follow logic, to concentrate, to have flexibility, to bear responsibility, to feel the time, to think, to evaluate, to find and correct mistakes, to act to achieve the goal, to work for the future.

The materials presented in the article allow to deepen knowledge about the self-organization process for further research on the development of students' self-organization skills in educational activities.

Key words: self-organization, self-organizational skills, the structure of self-organization, self-organizational components.

© 2020 Chulpan I. Nizamova, Alisa E. Kolochkova

This is an open access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Published by Kazan federal university and peer-reviewed under responsibility of IFTE-2020 (VI International Forum on Teacher Education)

* Corresponding author. E-mail: Chulpannizamedin@gmail.com

Introduction

Self-organizational skills are important in the life of each individual, regarding any sphere of life: training, professional activity, personal life. Self-organization is becoming one of the most sought-after qualities of future specialists and professionals. As Kozlovskaya & Epanchintseva (2013) underline: "A student who does not know how to organize personal time can not only fully study, but also cannot become a full-fledged specialist and participant in the labor market, since a university student must organize his work himself, plan his studies himself, and distribute workloads himself".

As can be seen from the root-forming words "self" and "organization", self-organization contributes to the streamlining and organization of actions to achieve the goal. Self-organization in educational activity organizes a student to self-education. As a rule, self-education refers to the group of general cultural competencies included in the Federal State Educational Standards of Higher Education (Ministry of Education and Science of the Russian Federation, 2012), and is referred to the information-cognitive competency (OK-5), which consists in the learner's ability to independently acquire and use new knowledge and skills related to professional activity. In view of the tendency to increase the time allocated for independent study of hours in higher education curricula, the problem of the development of self-organization among students becomes especially topical.

The materials presented in the article allow to deepen knowledge about the self-organization process for further research on the development of students' self-organization skills in educational activities.

Purpose and objectives of the study

The aim of the article is to identify, theoretically substantiate and specify the skills of self-organization.

This article discusses the structure and structural components that make up self-organization, and based on this, the basic skills of self-organization are formed. To achieve the goal, the following tasks were set:

1. To form a structure of self-organization;
2. Form the structural components of self-organization;
3. Establish self-organization skills according to its structure and components.

Literature review

Each structural component of self-organization has its own functional load and can be described in terms of the role that is assigned to each stage in the structure of the self-organization process. Thus, Kiryakova & Kozlovskaya (2006) determined the structure of self-organization according to its functions:

1. Goal setting - analysis and formation of personal goals;
2. Planning - the development of plans and alternative options for its activities;
3. Decision making - making decisions on upcoming matters;

4. Organization - preparation of the daily routine and organization of the personal labor process;
5. Implementation - the implementation of tasks;
6. Control - self-control and control of results (if necessary, adjustment of goals);
7. Information - search and exchange of information;
8. Communication - the implementation of communication links.

Gromtseva's structure (1983) is represented by organizational skills: setting goals, determining ways of its implementation, planning future activities, monitoring the results of activities, choosing a vector for further activities, economical and productive use of time.

Kirsanov et al. (2010) to the abovementioned Gromtseva's components (1983) added a point of organization of working time to the structure.

According to Pakhmutova (2018) the most significant components of self-organization are actions, namely:

- goal setting;
- analysis of the conditions of activity;
- operations planning;
- implementation of the plan;
- volitional actions;
- control of results;
- error correction.

The structure of self-organization can be represented by its components. Reunova (2013) identified the following components of self-organization:

1. Cognitive - knowledge: technology time management, self-organization of educational activities, leading axiological ideas.
2. Axiological - relations: the level and nature of motivation for self-organization of educational activities, the desire and interest in acquiring knowledge and skills of technology, time management, value attitude to self-organization, focus on the acquisition of time orientations.
3. Active - skills: the orientation of the individual towards the efficient use of time in the self-organization of educational activity, the ability to be included in the educational process taking into account the time factor.

Bordovskaya & Kostromina (2013) distinguished four components of self-organization: problem-target (Gnostic), program-target, operational-technological, reflective-evaluative:

1. During the analysis of the situation and goal-setting, the problem is formulated: the conflicting sides of the conditions and requirements existing at this stage are determined, the purpose of the activity is recognized, it is specified, on the basis of which a kind of objectification of the image of why the person's self-organization is organized, the results of the upcoming activity are predicted. The first two stages of self-organization - analysis of the situation and goal-setting - are designated as a problem-target component, or Gnostic.

2. At the planning stage, self-organization takes place, an analysis of the conditions under which the activity will be carried out, tasks that are distributed in stages over time are determined, the structure of the process of future activities is compiled, a step-by-step sequence of progress towards the goal is formed, which is measured by the achieved results, the most optimal means are selected and rational methods for achieving the goal, psychological preparation, the mood for the upcoming work. In other words, at this stage, a holistic program is being developed to achieve the goal - this stage is a program-targeted component of self-organization.

3. At the next stage, the conceived plan is implemented, and the time-distributed activities are realized at stages. In this case, there is constant, carried out by the subject, control over the accuracy of the results of actions, the activity itself or the chosen method of achieving the goal. In case of error detection, timely correction is carried out. This component of self-organization is an operational-technological component.

4. The following steps are also associated with the control and correction of the results already obtained at the time of the assessment. The results obtained are correlated with the reference ones required by the criteria selected for control, an assessment of the work done is made, conclusions about the quality are made, the mistakes made are corrected, the defects made in the work are eliminated, the existing obstacles in the process of the activity are analyzed, ways and ways to improve the organization are searched activities, prospects for improving skills, methods and techniques of self-organization, the possibility of using the experience of others, taking into account individual capabilities and abilities. The criterion that evaluates the effectiveness of the activity here is the reflective position of the subject, his own attitude to his work. Thus, this stage of self-organization will be designated as a reflective-evaluative component (Bordovskaya & Kostromina, 2013).

Dombrovetskaya (1987) presented the components of self-organization with a set of interconnected competencies:

1. gnostic competence - is built from the ability to generalize and systematize knowledge, analyze their own educational and professional activities and, thus, is a regulator of activity, a condition for the effective design of goals, planning and implementation of a plan;

2. design competence - based on the functions of goal-setting and designing the goals of educational, professional, social, labor and other types of activities;

3. constructive competence - at this stage, the content, logic, and sequence of tasks of educational and cognitive activity are compiled;

4. communicative competence - is the ability of students to establish optimal and appropriate relationships between participants in the educational process;

5. organizational competence - involves the implementation of the plans of educational and professional activities formed in the previous stages in the conditions of communication.

Kurnev (2005) considered the components of self-organization through the prism of the structural components of the pedagogical system:

1. diagnostic - shows the existing level of formation of self-organization skills.

2. objective - characterized by conscious goal-setting, and positive motivation for the formation of self-organization skills. Kurnev (2005) also referred to the target component the acquisition of knowledge and skills, which are the basis for the formation of self-organization skills.

3. forecasting and designing - it seems to be the ability of the teacher and student to predict, determine the future and trends of the further formation of self-organization skills.

4. substantive-operational - it consists in the practical formation of students' self-organization skills through knowledge of the self-organization process.

5. effective-corrective or evaluative-corrective - it consists in the formation of an estimated attitude of one's activities and amendments to the process of formation of self-organization skills.

Kurnev (2005) also singled out functional components: performing, according to the author, specific local tasks.

1. motivational - forms the motives of self-organization.

2. emotional-volitional - provides informational and pedagogical support to students, generates pedagogical and life situations aimed at the emergence of the necessary emotions that affect the emergence and maintenance of persistent volitional efforts of students to build self-organization skills.

3. communicative - collaborative communication between teacher and student.

4. managing - consists of a combination of management, co-management and self-government, which is based on the pedagogical system of formation of students' self-organization skills as an integrative totality of its components (goal, activity, subject, relationship, environment).

Logvinova (2014) proposed the following components of self-organization:

- oriented-objective (motivation, goal setting);

- diagnostic (situation analysis, modeling);

- projective (planning);

- active (implementation of the plan, intermediate control and evaluation, volitional regulation);
- evaluative-reflexive (reflection).

Naing (2015) in his study presented a model for the formation of students' self-organizational skills based on a synergistic approach, which includes four interrelated components:

- objective - forms an adaptive, proactive, flexible self-organizing personality of a future specialist;
- structurally-meaningful - the content of the student's professional education (professionally significant knowledge, skills, possession);
- organizational methodological - conditions and methods for organizing the educational process;
- effective evaluative - monitoring of the educational process, which forms students' self-organizational skills using a system of criteria-evaluative tools.

The capacity of each structural and functional component is determined by self-processes that provide step-by-step advancement of a person from goal to result: self-control, self-training, self-esteem, self-reinforcement. So the structure of Serikov (2006) is represented by components - self-belief, self-instruction and self-government.

Elkanov (1992) singled out the following components of self-organization: self-control, self-esteem, self-instruction, skills of rational organization of activities, activity planning.

Andreev's (2015) structural components of self-organization include self-control, work planning, rational use of time and means of activity.

In a study by Bramucci (2013) a theoretical review was conducted, as a result of which, the scientist emphasized on four fundamental processes consisting of actions aimed at inducing external stimuli in themselves:

1. Self-control. Self-control stimulates self-reactivity, is a motivating motivation.
2. Self-training. Self-education consists of written or oral stimuli by which students are able to activate themselves and which direct them to respond in situations where external "reinforcing" stimuli are weak or absent. From this point of view, there is a dialogue with oneself on the principle of question-answer, the further course of events and the deployment of actions depend on the appropriateness of the answer.
3. Self-esteem. Self-esteem requires an assessment of one's behaviour in relation to the standard, which takes the form of precise actions (the number of correctly performed steps) and improvement of productivity in terms of speed, quantity and duration. Self-esteem types describe the effects of self-correcting responses and changes in reactions or even reference standards if they are insufficient or unnecessary.
4. Self-inforcement. Self-esteem, in turn, is the basis for self-management of rewards or prizes, which are called self-reinforcement.

Morosanova (2013) identifies the following universal skills of self-organization: adequacy, awareness, reliability, stability, determination, determination, responsibility, will, logic.

According to Rubinstein (2010), in order to be self-organized it is necessary to have individual and personal skills: the ability to self-motivate, motivate oneself to work, organization, diligence, self-control.

Researchers Bulatova & Tarasyuk (2007) and Ryzhenkov et al. (1990) presented self-organizational skills as follows: the ability to normalize their work when taking into account the complexity of the types of tasks, rationally plan and spend their time on the basis of accounting and analysis of the time spent, choose rational methods of work, engage in self-education, take into account and control their actions, the ability to think correctly, etc.

Methodology

For convenience and a more complete study of self-organization skills, it is necessary to approach the issue in a structured way. Self-organization is a process, and like any process, self-organization has its own structure.

The aim of the article is to consider the structure and structural components that make up self-organization, and on this basis, identify the rationale and concretization of the basic skills of self-organization. For this, we have formed the tasks:

1. To formulate a structure of self-organization;
2. To form the structural components of self-organization;
3. To establish self-organizational skills according to its structure and components;

Results

Basing on the work of Pakhmutova (2018), Kozlovskaya & Epanchintseva (2013), Gromtseva (1983) and Kirsanov et al. (2010), and also coming out of our vision, the structure of self-organization is presented in the following form:

1. Self-analysis
2. Analysis of the situation
3. Goal setting
4. Planning
5. Implementation of the plan
6. Reflection
7. Evaluation
8. Correction

9. Moving forward

The components of self-organization, including in educational activities, can be represented as follows:

1. Diagnostic component - introspection, goal-setting, analysis of the situation and conditions in which the activity will be implemented.
2. Projective component - preparation of a plan for future activities, selection of materials and working methods, allocation of time to perform individual tasks.
3. The contextual component is the implementation of activities in compliance with logical sequence and flexibility under conditions that change during the implementation of activities.
4. Reflexive-evaluative component - a return, a turn to the activity carried out with the aim of analyzing it and comparing the results with those planned for the purpose of evaluating, searching and eliminating errors or shortcomings.
5. The volitional component - stimulating oneself for activity and achieving a goal regardless of the situation, searching for rational solutions to the difficulties encountered and further steps to achieving the goal, combating procrastination, searching for motivation, moving forward, seeing promising goals, and improving oneself.
6. A component of a complex of self-processes - self-control, self-training, self-esteem, self-reinforcement.

We have identified nine stages of self-organization included in six structural components (Scheme 1): diagnostic component – self-analysis, situation analysis, goal-setting; projective component - planning; contextual component - the implementation of the plan; reflective-evaluative component - reflection, assessment, adjustment; volitional component - forward movement; component of a complex of self-processes - accompanies the entire process of self-organization.

Scheme 1. Self-Organization: Structure and Components

Diagnostic	<ul style="list-style-type: none"> • Self-analysis • Situation analysis • Goal-setting
Projective	<ul style="list-style-type: none"> • Planning
Contextual	<ul style="list-style-type: none"> • plan implementation
Reflective-evaluative	<ul style="list-style-type: none"> • Reflexion • Evaluation • Correction
Volitional	<ul style="list-style-type: none"> • Moving forward
Complex of self-processes	<ul style="list-style-type: none"> • all parts of the structure of the self-organizational process

Thus, the structure of the basic skills of self-organization will look as follows (table 2):

Table 2. The Structure of the Basic Skills of Self-Organization

Stages of self-organization	Structural components of self-organization	Universal self-organization skills
1. Self-analysis	1. Diagnostic	To analyze
2. Situation analysis		
3. Goal setting		To set goals
3. Planning	2. Projective	To plan (including selecting methods and materials); To prioritize; To manage time;
4. Plan implementation	3. Contextual	To motivate yourself; To observe the logic; To concentrate; To have flexibility To be responsible To feel the time
5. Reflexion	4. Reflexive-evaluative	To dwell
6. Evaluation		To evaluate
7. Correction		To find and correct mistakes
8. Moving forward	5. Volitional	To act until the goal is achieved; To work for the future

Discussions

In our opinion, Reunova's components of self-organization (2013) are not consistent with the structure of self-organization, which creates inconvenience in the presentation of the components of the investigated process.

One can notice, that the components of both researchers Kiryakova & Kozlovskaya (2006) and Dombrovetskaya (1987) are interrelated: Kiryakova & Kozlovskaya's programme-objective or gnostic (2006) and Dombrovetskaya's gnostic (1987); Kiryakova & Kozlovskaya's programme-objective (2006) and Dombrovetskaya's projective (1987); Kiryakova & Kozlovskaya operational-technological (2006) and Dombrovetskaya's constructive (1987) in conjunction with organizational. The components differ in the presence of a reflective-evaluative component by Kiryakova & Kozlovskaya (2006) and communicative by Dombrovetskaya (1987). And both the systems of components of self-organization presented by Kurnev (2005), as well as components of Logvinova (2014) and Naing (2015) absorb the content of the components of self-organization by Kiryakova & Kozlovskaya (2006) and Dombrovetskaya (1987).

In the presented components by Elkanov (1992), Serikov (2006) and Andreev (2015) there are new unannounced components: a complex of self-processes and a rational distribution of time. The totality of self-processes implies specific self-organizing abilities and skills that unfold over time and are based on the individual's ability to be independent.

Each process begins with analysis. In our view, the process of self-organization should begin with introspection, an analysis of internal causes. Therefore, it seems appropriate to include self-analysis as the first link in the structure of self-organization. In the process of introspection, an answer is sought to the following questions: 1) who I am, 2) what I want, 3) what I am: what my abilities, qualities and characteristics are, 4) what I want to learn or what I want to be, 5) who I want to be; according to the results of the answers to these questions, the goal is formed.

When the goal is achieved, an analysis of the external conditions for the implementation of the goal is carried out: the availability of necessary or auxiliary resources, conditions. After this, the basis for the future implementation of the goal is formed, that is, a plan is drawn up. Then logically follows the realization of actions and control, adjusting the results. It is also necessary to emphasize the need for the following steps, such as reflection - self-assessment of the achieved elements of the plan, that is, self-control of one's own activity, adjustment of movement, actions and course towards the intended goal and further voluntary movement forward.

When determining the components of self-organization in educational and professional activities, proceed from the traditional stages of educational and professional activity:

1) tentatively targeted: there is an awareness and concretization of the purpose of educational and professional activity, an individual goal is formulated, self-organizing educational and professional activity, its results are predicted;

2) theoretical and diagnostic: an analysis is made of the status of educational and professional activities and the conditions in which it is implemented, available achievements; diagnosed problems of educational and professional activities, a theoretical analysis of their causes; the dependence of the results of educational and professional activities on the organization of the process of educational and professional activities is established;

- 3) design-constructing: at this stage, a plan is built and the process of educational and professional activity is constructed, a method of self-organization of educational and professional activity is selected;
- 4) technological: the implementation of educational and professional activities, organized in a certain way, with self-monitoring of the activity process and its results;
- 5) evaluative and reflexive: an assessment of the activity takes place, conclusions are made about its results;
- 6) corrective: errors are corrected and deficiencies in the activity and its results are eliminated, long-term plans for ways and means of improving educational and professional activities are built.

It is necessary to single out another component of self-organization, without which it is impossible to carry out a chain of sequential actions in the process of self-organization - the volitional component. The volitional component ensures that a person who does not stop trying to move towards a goal does not stop, but moves forward, or does not stop at the achievement part, leaving unresolved tasks and being satisfied with the result, but not the full result, and reaching the intended goal.

We can observe that the process of self-organization as a whole and the self-organization of educational activity have similarities in components and stages.

The components of self-organization are interconnected, interpenetrating, mutually reinforcing and interdependent. So from the above components of self-organization, one can notice the presence of the volitional component and the component of the complex of self-processes in the implementation of all stages of the self-organization process, their mandatory presence in the diagnostic, design, substantive and reflective-evaluative components. Thus, the volitional component and the component of the complex of self-processes are common components for each stage of self-organization.

As a rule, researchers build a system of self-organization skills based on a basic idea, model, concept.

In our study, self-organizational skills were established according to the structural components of self-organization, since it is the structure that underlies any phenomenon.

The diagnostic component requires the ability to adequately analyze the situation, see yourself from the outside, set specific clear goals that can be measured by the results achieved, be aware of the goal and the significance of its achievement, therefore, the necessary skills – to analyze, set goals; the projective component includes the ability to draw up a plan, construct a model for achieving the goal, choose the right methods to obtain results, logically structure your activities, determine the timing of the actions, choose the right effective methods to achieve the goal with the optimal cost of time and energy resources: skill – to plan; the content component requires the subject to be able to work, be disciplined, responsible, decisive, result-oriented, concentrated and attentive, control his actions (including time), control behaviour, have flexibility, i.e. be able to rebuild their actions when changing conditions and circumstances: skills - to be motivated, concentrate, observe the logic of the sequence of events, have the flexibility to make decisions and implement actions, to feel the time; in order to achieve the reflective-evaluative component of self-organization, it is necessary to be able to look at one's activities and the results of activities from the outside, give an adequate objective assessment of

one's activities, behavior, results, psychological state, find reasons and factors knocking down of the intended course, find mistakes in actions, behavior, ways and methods of solving problems aimed at achieving the goal, adjust the tasks themselves, if they do not lead to results: skills - to reflect, evaluate, find and correct mistakes; the volitional component of self-organization will require to cultivate such personal qualities as courage, determination, perseverance, self-motivation, self-development, constant desire for personal growth and development, so as not to be afraid of difficulties and failures, wrong decisions and strategies, not to go astray under any circumstances, do not stop at the incomplete implementation of the plan when certain results are achieved, but not the goal itself, that is, be bold, decisive and persistent: skills - act until the goal is achieved, work for prospective.

Conclusion

Self-organization is represented by nine stages, included in six structural components: a diagnostic component - introspection, analysis of the situation, goal-setting; projective component - planning; contextual component - the implementation of the plan; reflective-evaluative component - reflection, assessment, adjustment; volitional component - forward movement; component of a complex of self-processes - accompanies the entire process of self-organization. The basic skills of self-organization are: to analyze, to set goals, to plan, to motivate yourself, to follow logic, to concentrate, to have flexibility, to bear responsibility, to feel the time, to think, to evaluate, to find and correct mistakes, to act to achieve the goal, to work for the future.

References

- Andreev, V. I. (2015). *Pedagogical heuristics for the creative self-development of multidimensional thinking and wisdom*. Kazan: Center for Innovative Technologies.
- Bordovskaya, N. V., & Kostromina, S. N. (2013). Potential and real student readiness for research. *Higher education in Russia, 10*.
- Bramucci, A. (2013). Self-Regulated Learning: Theories and potential applications in didactics. *Intelligent Tutor: Lifelong Learning, 1-22*.
- Bulatova, E. M., & Tarasyuk, V. N. (2007). *Competence approach in educational work with high school students*. KCHU.
- Dombrovetskaya, G. (1987). *Features of the educational self-organization of foreign students* (Doctoral dissertation, Saint Petersburg, Russia). Retrieved from <https://search.rsl.ru/ru/record/01008627388>
- Elkanov, S. B. (1992). *From a professiogram to a project to develop the personality of a future teacher*. Voronezh: Voronezh State Pedagogical University.
- Gromtseva, A. K. (1983). *The formation of students' readiness for self-education: a training manual*. Education.
- Kirsanov, A. A., Ivanov, V. G., & Kondratiev, V. V. (2010). Methodological problems of engineering pedagogy as an independent direction of professional pedagogy. *Bulletin of Kazan Technological University, 4*.

- Kiryakova, A. V., & Kozlovskaya, T. N. (2006). *Self-organization of time as a factor in the formation of the "Image of the Future" of a university student: a monograph*. Nizhny Novgorod: VGIPA.
- Kozlovskaya, T. N., & Epanchintseva, G. A. (2013). Self-organization as infinity of personality development. Integration aspect. *Basic research*, 14(10).
- Kurnev, M. M. (2005). *The pedagogical system of the formation of self-organization skills of students of legal universities of the Ministry of Internal Affairs of the Russian Federation: On the basis of physical training*. Moscow.
- Logvinova, O. N. (2014). Formation of meta-subject results of technological education in project activities. *School and Production*, 3, 21-26.
- Ministry of Education and Science of the Russian Federation. (December 29, 2012). *Federal State Educational Standards of Higher Education*. Retrieved from <http://fgosvo.ru/fgosvpo/7/6/1>
- Morosanova, V. I. (2013). Differential-psychological foundations of self-regulation in the training and education of the younger generation. *World of Psychology*, 2, 189.
- Naing, H. H. (2015). *The formation of self-organization skills in chemical students based on a synergistic approach*.
- Pakhmutova, M. A. (2018). *Self-organization of the personality of students with different styles of research activity* (Doctoral dissertation, Mari State University, Mari El Republic, Russia). Retrieved from <https://www.dissercat.com/content/samoorganizatsiya-lichnosti-studentov-s-razlichnymi-stilyami-issledovatel'skoi-deyatelnosti>
- Reunova, M. A. (2013). *Pedagogical technology "time management" as a means of self-organization of educational activities of university students* (Orenburg State University, Orenburg, Russia). Retrieved from <https://www.dissercat.com/content/pedagogicheskaya-tehnologiya-taim-menedzhment-kak-sredstvo-samoorganizatsii-uchebnoi-deyate>
- Rubinstein, S. L. (2010). *Being and consciousness*. Peter.
- Ryzhenkov, P. E., Marusova, E. V., & Khaslavskaya, L. M. (1990). *Self-organization of first-year students: textbook*. Novosibirsk: Publishing House of Novosibirsk University.
- Serikov, G. N. (2006). *Pedagogy*.