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**ВЕСТНИК**

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**Якубова М.М.** проф., академик (Таджикистан)

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Адрес типографии: ИП «Аруна», г. Алматы, ул. Муратбаева, 75

E d i t o r i n c h i e f

doctor of chemistry, professor, academician of NAS RK

**M. Zh. Zhurinov**

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**G. K. Kassymova<sup>1</sup>, G. V. Valeeva<sup>2</sup>, O. P. Stepanova<sup>3</sup>, O. A. Goroshchenova<sup>4</sup>, R. R. Gasanova<sup>5</sup>,  
A. A. Kulakova<sup>6</sup>, P. V. Menshikov<sup>7</sup>, M. R. Arpentieva<sup>7</sup>, S. K. Dossayeva<sup>8</sup>, G. V. Garbuzova<sup>9</sup>**

<sup>1</sup>Abai Kazakh National Pedagogical University, Satbayev University, Almaty, Kazakhstan  
and Universitas Negeri Yogyakarta, Indonesia,

<sup>2</sup>Chelyabinsk State Pedagogical University, Ural State Humanitarian-pedagogical University, Russia,

<sup>3</sup>Nosov Magnitogorsk State Technical University, Chelyabinsk region, Russia,

<sup>4</sup>Irkutsk National Research Technical University, Irkutsk, Russia,

<sup>5</sup>Faculty of Pedagogical Education, M. V. Lomonosov Moscow State University, Russia,

<sup>6</sup>Speranskiy Law Institute, Vladimir State University named after A. G. and N. G. Stoletovs, Russia,

<sup>7</sup>Tsiolkovskiy Kaluga state university, Russia,

<sup>8</sup>National academy of sciences of the Republic of Kazakhstan, Almaty, Kazakhstan,

<sup>9</sup>Bryansk State Technical University, Russia.

E-mail: zhaina.kassym@gmail.com, mariam\_rav@mail.ru

## **STRESS OF THE INNOVATION AND INNOVATIONS IN EDUCATION**

**Abstract.** The authors introduce the concept of stress of the innovation. The stress of innovation is the stress that occurs in the process and result of the introduction of innovation. For students and teachers, innovation is both a situation that generates stresses and crises of the personal, interpersonal and organizational levels, and a way to overcome such stresses, problems, and development crises. It is important to note the relationship of causes and consequences, as well as the manifestations of stress of teachers and students at the personal, interactive, educational and organizational levels. The main objectives of our study are to find out how stress of the innovation in education affects the professional and academic success of teachers and students, and how it affects their satisfaction with themselves, their health and life in whole. The main method of our research was a theoretical analysis of the problems of stress of innovations by students and teachers. The results obtained show that pupils (students) and teachers need not only training in productive and effective methods of preventing and correcting stress of the innovations in situations of organizational and didactic development and stagnation, reforms and other changes. Crisis and stress states of the psyche of a child and an adult are conditions in which the risk of formation and consolidation of deviant behavior, developmental disorders, diseases and injuries, etc. increases. These changes become more pronounced in those cases when, under the conditions of training and education, work and rest, existing and changing relations in the process of innovation and other changes are not taken into account. All productive and effective innovations on education are connected by one idea - creating conditions in which the development of a person as an individual, partner and professional is inevitable, and not just declared or possible. In developing an integrative prevention and coping model for students and teachers (in matetogenias and pediogenias), it is important to consider the prevention and correction of stress in the context of the development of the actors of education in different contexts: in the context of educational, professional, personal and interactional development. Prevention and correction of stress in innovative education (and in stress of the innovation) is associated with the prevention and correction of pediogenias (harm caused by incorrect, destructive, and pathologizing attitudes of teachers towards students), as well as correction and prevention of "matetogenias" (harm caused by incorrect, devastating, and pathologizing attitudes of students towards teachers).

**Keywords:** stress, innovation, pediogenia, matetogenia, didactogenia, stress coping, stress of the innovation, students, teachers, crisis management, psychological assistance.

**Introduction.** The history of Russian education is an ongoing innovation process. Starting with the reforms of Peter I, when education became one of the most important state tasks, the stress from innovations received a new impetus. Conceiving the creation of a new man under the influence of the ideas of Didro, Catherine II did not even think about what could harm her subjects. Universal education of the masses was considered only as a positive phenomenon. But any medal always has two sides. An

omniscient education in Russia, in addition to its undoubted advantages, brought a previously unknown feeling of fear from a change in lifestyle, separation from the family, possible insolvency in study and service, new requirements, teacher-student relationships, and personality violence. How did the schoolchildren of the 18th-19th centuries overcome the difficulties that arose? The chronicle of those years is full of information about runaway / caught / punished students, as well as often bitter memories of graduates of educational institutions of those years (Goroshchenova, 2005, 2007). Today, innovation is still causing stress, more intense compared to the past. There are too many requirements for a future graduate: professionalism, knowledge of international languages, knowledge of the economy, the right to write articles and engage in science - all this a student must learn in a few years. The intensity of the educational process is sewn up in universities, technical schools and even in schools. Staff psychologists have appeared in educational institutions to help students and teachers cope with psychological problems and find balance in this multifaceted and complex world called "society" (Goroshchenova, 2016; Goroshchenova, 2015).

For modern students and teachers, innovation is both a situation that generates stresses and crises at the personal, interpersonal and organizational levels, and a way to overcome such stresses, problems, and development crises. It is important to note the relationship of causes and consequences, as well as the manifestations of stress of teachers and students at the personal, interactive, educational and organizational levels. In addition, we consider it important to note that didactogeny, in which different researchers highlight pedagogical errors (violations that arise because of pedagogical errors or intentional violence by teachers) and matetogeny (violations that arise from teachers because of intentionally or unintentionally incorrect and / or violent behavior from students), also form a single system. Only in theoretical terms can one divide the single process of a disturbed, pathologizing man or woman as a person, as a partner and as a (future) professional, didactic communication in practice, these processes are closely related (Arpentieva, 2016; Aryn, 2006; Clarin, 1995; Clark, 2011; Zagashev, 2010).

**The main objectives of our study** are to find out how stress of the innovation in education affects the professional and academic success of teachers and students, and how it affects their satisfaction with themselves their health and life in whole.

**The main method of our research** was a theoretical analyze of the problems of stress of innovations by students and teachers. The results obtained show that pupils (students) and teachers need not only training in productive and effective methods of preventing and correcting stress of the innovations in situations of organizational and didactic development and stagnation, reforms and other changes, not only comprehensive anti-stress care (Kassymova, Kosherbaeva, Sangilbaev, Schachl, Cox, 2018). So that they can prevent and cope with stresses while studying and working, but they need a new understanding of themselves and the world, including an awareness of the goals and values of their lives, of the education and of the innovations. In addition to educational and professional stress, it is also important to take into account the stresses of personal development and interpersonal relationships that are associated with the personal, interpersonal, as well as social aspects of their life and educational innovations. To successfully overcome and prevent stress of the innovations, including in the context of the problem of introducing or refusing to introduce innovations in an educational organization and / or didactic interaction, students and teachers need systematic help (Kassymova, Stepanova, Stepanova, Menshikov, Arpentieva, Merezchnikov, Kunakovskaya, 2018; Kassymova, Tokar, Tashcheva-Slepukhina, Gridneva, Bazhenova, Shpakovskaya, Arpentieva, 2019; Ostapenko, Khagurov, 2013).

**Results and its discussion.** Crisis and stress states of the psyche of a child and an adult are conditions in which the risk of formation and consolidation of deviant behavior, developmental disorders, diseases and injuries, etc. increases. These changes become more pronounced in those cases when, under the conditions of training and education, work and rest, existing and changing relations in the process of innovation and other changes are not taken into account. These changes become more pronounced even when the correspondence between the prevailing and characteristic for the previous stage ways of understanding oneself and the world, the characteristic and uncharacteristic traditions and principles of relations with others and the possibilities and limitations of a man or woman as a person, partner and student or a professional developing during this period. Expanding opportunities and overcoming the limitations of the activity of a child and an adult, including them in a new system of relations with as a whole can have a very favorable effect on the level of physical, mental, social and moral development,

creating conditions for further improvement and self-improvement. However, not all changes are actually innovations that carry the meaning of development. On the contrary, many, especially external changes, can be negative. Only the subjects of education themselves as stakeholders and actors can find those options for consensus solutions to conflict, crisis and stressful situations through which they pass. Only they can understand the causes and goals of the changes that life gives them. In another version - typical for the education of many countries - innovation in education is always the fruit of throwing from one extreme to another and an attempt to correct some mistakes by making others. The exception is, for example, the countries of post-capitalism, the formation of which, thanks to the respect of the state for people and respect for people to each other, has gone unattainably far for the capitalist and "developing" countries. Obviously, in this context, innovations in capitalist countries do fulfill a pathological role. Trying to help in solving some problems, they not only fail to achieve the goal, but also create new problems and stresses. As a result, not only teachers "take out" their dissatisfaction (rejection, powerlessness and ignorance) on students, but also students and their families do the same. A vivid example is the numerous discussions in modern Russia about what educators should or should not allow themselves to do in their daily lives. In addition, here can be attributed discussions about who should deal with children: children or parents. This also includes discussions about "unnecessary items", "excess requirements", etc. The question setting speaks for itself: instead of participating in solving problems common to them, subjects of education are engaged in attempts to evade solutions. Obviously, this is a result of stress. It is also obvious that this leads to further stress. Teachers and pupils, students and university professors leave educational institutions, which leads to further regression of the education system. On the contrary, the Scandinavian model of education, raising children and youth in an atmosphere of love, respect, interest in themselves and the world, and modern education in Britain, which undertook to restore what remained after the "ruins of the university" in order to ensure its country world domination, using the best practices of Soviet education, are two important "innovations":

1. the pointless discussions about "greendfields" (new educational technologies) and "brownfields" (old educational technologies) are minimized, really effective and productive technologies and models of education are selected;

2. all interested actors are connected, the students and teachers themselves - as actors - develop themselves as individuals, build relationships, participate in learning and learning, in an atmosphere of cooperation, respect, service, creative search.

As noted by L.A. Petrovskaya, one of the leading Soviet and Russian psychologists, there are several educational traditions that create a favorable, psychotherapeutically affecting, that is, healing atmosphere in training and education (Minigalieva, 2012):

1) a practice-oriented approach that complements, rather than replaces, the classic theoretically-oriented, including some types of contextual and problematic education;

2) an activity-semantic approach, including contextual education and some types of programmed education, etc.;

3) a personality-centered approach (based on the ideas of self-realization of a personality), including a model of education- facilitation or dialogue.

All these approaches are connected by one idea - creating conditions in which the development of a person as an individual, partner and professional is inevitable, and not just declared or possible. This is the idea of overcoming limitations, including those associated with previous stresses of education and life. This is the idea of empowering a person and the palette of his methods of action, improving his relations, including conflicting competence, the ability to learn and the ability to learn. This is the idea of enriching the palette of ways of productive and effective coping with stresses, difficult and crisis situations inside a person, in his relations with other people and in the educational and professional life. This is the idea of psychologically safe, supportive and confirming support of development, during which a person gains perfection: completeness of knowledge and skills ("indicative foundations), clarity and harmony of goals and values, transparency of relations with oneself and people, etc. In such innovative conditions, the stresses of education or didactogeny (matetogeny and pediogeny) either do not arise (are converted) or are quickly and fully corrected. Conflicts as confrontations lead to the development of all actors at all levels. In other situations, conflicts and stresses are suppressed and / or intensified. In addition, innovations act as destructive changes leading to the collapse of education and, further, to the degradation and destruction of those structures that created and introduced these innovations.



There is also the “Russoist” or educational paradox: in pedagogy of education, the result is always probabilistic. Even ingenious, from the point of view of theory, views cannot always be realized properly or simply realized. It is important that both innovative and traditional methods and models of education are suitable for the student and teacher, help them build didactic communication, realizing the tasks of training and education without unnecessary deformations (Zimnyaya, 2006). It is also important that the subjects of education are open to change, including their creative potential.

The unusual workload of teachers leaves no room for creativity. There is a feeling that the teacher does not come to teach and share his experience, but to write papers: curricula, teaching materials, electronic and paper diaries, numerous reports. All this bureaucratization of education negates the very idea of learning. In this case, innovation does not benefit either the teacher or the student. They only cause a high feeling of dissatisfaction, fatigue and stress, cause early professional burnout.

As we noted earlier, the important source of resistance to stress is a person’s creative abilities. Stress and creative abilities of a person interact ambiguously. On the one hand, stress suppresses creative abilities, as well as all other intellectual abilities of a person. On the other hand, stress encourages people to search for new forms of response, that is, to creativity. The nature of creativity in a stressful situation is largely related to the type of stress. The more extensive stress a person experiences, than higher and larger his creative achievements. On the third hand, the creative abilities of the individual help her to undergo stress easily, sometimes not noticing them. On the fourth hand, the creative abilities of a person “lead” him to specific stressful situations associated with the need for its realization, as well as with the opposition of creative and reproductive (stereotypical) social patterns of life activity (Kassymova, Tokar, Tashcheva, Slepukhina, Gridneva, Bazhenova, Shpakovskaya, Arpentieva, 2019; Kassymova, Tyumaseva, Valeeva, Lavrinenko, Arpentieva, Kenzhaliyev, Kosherbayeva, Kosov, Duvalina, 2019).

The attitudes of people, including students and teachers, to innovations are different. Some people are prone to their acceptance, risk, responsibility and creativity. Other people are more conservative, avoid risk, responsibility and change. Sometimes in one person, different manifestations coexist simultaneously with respect to innovations from different areas of his activity (Kassymova, Arpentieva, Kosherbayeva, Triyono, Sangilbayev, Kenzhaliyev, 2019; Arpentieva, Kassymova, Lavrinenko, Tyumaseva, Valeeva, Kenzhaliyev, Triyono, Duvalina, Kosov, 2019; Kassymova, Tyumaseva, Valeeva, Lavrinenko, Arpentieva, Kenzhaliyev, Kosherbayeva, Kosov, Duvalina, 2019). Many high school and elementary school teachers, university / college teachers, and students need psychological help and counseling on educational stress, including innovation stress (Valeeva, 2019; Tyumaseva, Orekhova, Valeeva, Salamatov, Kalugina, 2018; Tyumaseva, Valeeva, 2018; Valeeva, 2013; Valeeva, 2017).

In psychology, there is a classification of subjects of innovation, compiled by E. Rogers (Rogers, 2003).

I group - “innovators”, usually it is about 2-3% of the team, they are always open to new things, absorbed in innovations, characterized by some adventurous spirit, intensively communicate with local groups.

II group - “early implementers” - about 13-14%. They follow the innovators, but are more integrated into their local community. They are influential, often turn out to be opinion leaders. Valued as reasonable implementers.

III group - preliminary majority - 34%. Leaders rarely play the role of mastering innovations after the “early implementers”, but much earlier than the so-called “average”. To make a decision, they need significantly more time than leading groups.

IV group - later majority - 34%. Relating to innovations with a fair amount of skepticism, they begin to master them sometimes under pressure from the social environment, sometimes as a result of assessing their own needs, but under one condition: when the team expresses itself clearly and unequivocally in their favor (“average implementers”).

V group - fluctuating - usually 16%. Their main characteristic is a focus on traditional values.

Innovations are accepted with great difficulty, the latter, being, in fact, a brake on the spread of innovation.

For teachers, K. Angelovski offers other names and characteristics of the categories highlighted by E. Rogers: “innovators”, “advanced”, “moderate”, “penultimate”, “last” (Angelovski, 1991).

I category - “innovators” includes teachers who boldly perceive, implement and disseminate everything new.

K. Angelovski calls category II “advanced workers” because in the perception of innovation they go ahead of the others. This category of educators believe that in our social conditions, innovations need to be introduced immediately, immediately after their appearance.

Category III is called "moderate", these teachers do not seek to be among the former, but do not want to be among the latter, their slogan is the golden mean. They do not perceive the new until they are perceived by the majority of colleagues.

Supporters of category IV are called “penultimate,” as they truly accept innovations among the latter.

Category V - those who adopt the latest innovations, guided by the principle: "Better late, but reliable."

The data obtained by the researchers lead to the following conclusions: about half of teachers (50%) are distinguished by a pronounced desire for innovation (I and II categories), every fifth teacher is in the “golden mean” (about 20%), less than a third (30%) relate to innovations restrained (IV and V categories). At the same time, teachers most often apply such innovations as changing forms of educational control for individual students, developing cognitive and creative qualities of students, teaching without first explaining the material to the teacher (i.e., independent study of the material), and the students and the teacher reflecting on their activities. About half are categorically against the rule making of the students themselves in education (45% of teachers). Strongly against the rule making of the students themselves in education is also about half (45%) of teachers. One fifth of teachers (20%) are against the student’s choice of the forms and methods of teaching him and changing the goals of the teacher to please the student’s goals. The heuristic educational situation does not include the tasks and habits of about 15% of teachers.

The overall results are similar for students: about a third of students (35%) are distinguished by a pronounced desire for creativity (category I and II), many who are in the “golden mean” (about 30%), about a third (35%) are innovations restrained (IV and V categories). At the same time, students often welcome innovations such as changing forms of educational control for individual students, game and practical classes devoted to the development of their cognitive and creative qualities of students, independent study of the material, the need for students and teachers to reflect on their activities is difficult to develop and perceived. They are not opposed to norm-setting in education (65%) and the student’s choice of the forms and methods of teaching and changing the teacher’s goals to please the student’s goals - 80%. 85% do not intend to publish their work in periodicals. In general, they are interested in activities aimed at developing creativity (60%), but the heuristic educational situation raises questions and doubts about their need (about 35%).

Available data indicate that teachers and students are not ready enough to accept and implement innovations, which in itself significantly reduces the effectiveness of innovations introduced into the educational process. One of the main reasons is passivity and fatigue because of disbelief in productive and effective changes in which a person can really prove himself. According to N. Yu. Postalyuk, the phenomenon of readiness and ability to innovate is a special manifestation of the creative style of human activity as a person, partner, and professional or student (Postalyuk, 1989). It uniquely combines reflexivity and anti-conformism, the presence of an individual idea of education and the desire to implement new educational and pedagogical ideas, practical skills to learn and learn, including using new technologies (Anderson, Varnhagen, & Campbell, 1998). This aspect of creative educational and pedagogical activity can be arbitrarily called “secondary creativity”, without which “primary” creativity (idea, project, theoretical solution to the problem) cannot be fully realized.

A student who is ready and capable of innovation is characterized by the following parameters:

1) - knows his individual characteristics, character traits, the most optimal pace and forms of occupation by each of the subjects;

2) has experience in the implementation of his creative abilities in the form of performing and protecting creative work, participating in creative contests, holidays and olympiads, etc .;

3) he is aware and knows how to explain his goals in teaching, including the goals of studying a particular subject, clearly understanding why he goes to school / university and what he realizes;

4) knows how to set an educational goal in a given field of knowledge or activity; make a plan for its achievement, as well as fulfill the plan, realize your result; Compare it with similar results from other students; make a reflection and self-assessment of their activities;

5) has a personal understanding of the meaning of each of the studied subjects; owns basic knowledge and skills; guided in basic subjects, problems of relevant sciences, practices and arts;

6) has personal education results that differ from generally accepted, including from federal and regional educational norms and standards;

7) is able to indicate his understanding (or misunderstanding) on any issues that arise; knows how to understand and evaluate a different point of view, conduct dialogue, including problematic dialogue (dispute);

8) is a carrier of cultural norms and traditions, lived and learned by him; knows how to argue his knowledge and explain skills, comprehend the results;

9) knows how to act in situations of choice; behave spontaneously, and, at the same time, is able to withstand the standards of behavior that are set at school / university and / or) the family;

10) has a goal in life, feels his life filled with meaning, knows how to build his future learning plans for the future.

A teacher who is ready and capable of innovation is characterized by the following parameters:

1) the ability and willingness to take into account the individual personality potential of students; reveals the personality characteristics of students in each specific educational field;

2) clarifies the fundamental educational objects, related problems and other elements of the educational program of a personality-oriented type;

3) selects cultural analogues of the proposed and already demonstrated products of student educational activities;

4) organizes and monitors the technology of student movement along their individual educational paths, ensures the implementation of an individual set of personal qualities and roles of each student in learning;

5) records changes in the personal qualities of students and the degree to which their internal potential is realized, as well as the students' external educational products (portfolio);

6) a conscious analysis of what is happening on the basis of motives and values of pedagogical activity and universal values;

7) critical attitude to pedagogical standards, reflection and the construction of a system of meanings (meaning-making);

8) openness to the environment and professional innovations and a creatively transforming attitude towards the world, going beyond the limits of normative task;

9) the desire for self-realization, the embodiment in professional activities of their intentions and lifestyle,

10) fills the elements of educational material and forms of its presentation with personal meaning, it is specific in communication with people.

One of the significant drawbacks of modern teacher education is its bureaucratization, as well as the lack of a hint of an innovative process in the professional standard. Although, if we trace the history of Russian education, then we will meet many creative personalities and copyright, innovative techniques. Among them L.N. Tolstoy, V.A. Sukhomlinskiy, A.S. Makarenko, K.D. Ushinskiy, P.F. Kaptev, L.S. Vygotskiy, L.V. Zankov, Sh.A. Amonashvili. Each of these innovative teachers, teaching a wide holistic picture of the world, humanism, collectivism, cultural norms and rules, never forgot about the correct psychological state of students. Studying new material should not lead to stress, but arouse keen interest (Goroshchenova, 2015).

One of the disadvantages of higher education pedagogy is that the process of becoming a future teacher does not model the structure of innovative activity. A purposeful study of pedagogical innovation in the existing educational standards of higher professional education is not provided.

The same situation is observed today in higher education institutions. Students, gaining knowledge in the chosen specialties, are especially attracted to creative forms of work. However, one of the problems of professional universities is the lack of pedagogical education among teachers, and, consequently, the lack of a pedagogical methodological base for conducting the subject.

Students are also, at best, oriented towards a creative approach, which allows them to understand the idea, but not the technique of one or another innovative development. This state of affairs does not contribute to the development of innovative education. Therefore, an urgent need has ripened for a special system of training teachers and students for innovative activities. Such training is one of the components of the prevention and correction of stressful conditions associated with violations and changes in didactic interaction.

It is extremely important to note: the violation of didactic interaction in itself is not necessary for the emergence of didactogenia: students and teachers are unprepared and unable to change.

In order to prepare for innovation V.A. Slastenin and L.S. Podymova offer the following sequence of preparation of the future teacher for innovation (Slastenin, Podymova, 1997):

I stage - the development of the teacher's creative personality, the formation of students' ability to identify, formulate, analyze and solve creative pedagogical problems, as well as the development of the general technology of creative search. There are independent transfer of previously acquired knowledge and skills to a new situation, vision of a problem in a familiar situation, new functions of an object, determining the structure of an object, seeing an alternative to a solution or its method. Also there are combining previously learned methods of activity with new ones as applied to a problem, the development of criticality in understanding oneself and the world;

II stage - mastery of the fundamentals of the methodology of scientific knowledge, pedagogical research, introduction to innovative pedagogy. Students are acquainted with the social and scientific prerequisites for the emergence of innovative pedagogy, its basic concepts, creatively interpret alternative approaches to organizing a school, study the main sources of development of an alternative school, are acquainted with various types of innovative educational institutions, etc.

III stage - the development of technology of innovation. Students are acquainted with the methodology of compiling the author's program; the stages of experimental work at school, participate in the creation of the author's program, analyze and predict the further development of innovation, the difficulties of implementation.

IV stage - practical work on the experimental site to introduce innovations in the pedagogical process, the implementation of the correction, tracking the results of the experiment, introspection of professional activity. At this stage, the teacher's innovative position is formed as a system of his views and attitudes towards innovation.

Such a construction of the educational process helps to solve the problem of preparing a teacher for innovative pedagogical activity, and for students to innovate in learning.

A person's reaction to "imposing" innovations on him, as a rule, goes through several phases, for example: denial, resistance, research, involvement, traditionalization (K. Ushakov) (Jonker, 1995; Ushakov, 1996: 4-5). The phase of denial may be characteristic of a subordinate state of shock, confusion. There is still a focus on the past. In the first phase, the lack of awareness of the teaching staff or students about the nature of innovation often plays a negative role; therefore, it is advisable, ignoring the manifestation of discontent, to orient people towards the future, giving them time to adapt. In the phase of resistance, teachers and students may experience irritation and depression in them, associated with a sense of the inevitability of change. Here you need to establish "feedback" with the team, listen more, and support the hesitant. However, sometimes a sharp confrontation with a proposal to make a choice may be appropriate. In the research phase, a person, having agreed with the inevitability of changes, begins to orient himself in new forms of activity. At this moment, it is necessary to monitor the process, maintain its dynamics, and prioritize out of the abundance of ideas. In the phase of involvement, the emergence of creative groups is characteristic. Setting goals is becoming more accurate. Dramatically improving coordination. At this stage, it is necessary to jointly develop long-term goals and rituals of a new everyday life (new educational "routines").

The important point of violations and reduce the ability to cope with stress an adapting to innovations is alienation, and, especially, self-alienation. If a person is in conflict with himself and his life, for example, he gets an unwanted profession, learns among unpleasant people that learn from those he does not respect, etc. It is especially difficult for him to adapt and develop. Unfortunately, collisions of this level are usually investigated only in the context of spiritual and religious assistance. In classical psychiatry, medicine, and psychology, these conditions are described and studied far less than "post-traumatic stress disorder." (Herlofsen, 1996; Lebigot, 2001). It is more or less described in the similar phenomena of "sociopathy", "psychopathy" and "didactopathy". Working with such people is difficult, and the essence of the violation (inability and unwillingness, inability and refusal to be a man and disagreement with the world) usually remains outside the attention of specialists. At the same time, the consumer society, which has become the label of the modern "civilization", which extols anomie and tolerance, physical and social well-being, is the basis for the formation of what can be called "social cannibalism". Educators and even

students of this type are more and more common in schools and universities. From the point of view of the organic "substrate", this violation, strictly speaking, is not a mental disorder. It refers to violations occurring in the sphere of spiritual and moral, sometimes for a long time does not manifest in any way at all, even in states of depression or apathy (psychological burnout, etc.). However, at the final stages, moral self-destruction is accompanied by destruction at the level of functional and organic systems.

So, modern schools and universities need the integrative model of the support of the innovation, including a model of the prevention and coping educational stress and didactopathies. Their need attention to the comprehensive support of teachers and students as innovational actors and co-actors in schools and universities. Integrative support of the educational innovation means some moments:

1) prevention, correction of violations and the development of knowledge and skills of subjects of education in the field of self-regulation at the physiological, psychological, social and moral levels,

2) the development of a person's creative abilities, his striving for self-realization, and, at the same time, the harmonization of attitudes towards other people, the development of knowledge and skills in the field of building harmonious educational, professional and personal relationships;

3) optimization of contact and distance learning and learning interaction, work teams, including in the framework of mediation of processes by means of the Internet and digital devices (Sinay, Nahornick, & Graikinis, 2017; Stepanova, Tashcheva, Stepanova, Menshikov, Kassymova, Arpentieva, Tokar, 2018);

4) prevention and correction of pre-traumatic and post-traumatic disorders, bullying and other forms of violence and its consequences (matetogeny, pediogeny, psychological burnout, occupational and personal deformities, diseases, accidents, injuries and deaths), the formation of a culture of violence - an understanding of its role and functions in people's relationships and inhuman activities;

5) the assertion of life and the refusal of discontent and accusations against other people, against one's own address and against life in general, the willingness and desire to efficiently and effectively process traumatic experiences;

6) the development of preventive and correctional stress management programs, the introduction of techniques and programs to cope with stress in education, including in the context of specialized occupations and practices, as well as psychotherapeutic-oriented pedagogical communication;

7) developmental innovation in different level of the educational systems, including personal, interpersonal and organizational innovations;

8) integrative approach to the traditional and innovational model and technologies in education, the aim of this integration is personal, interpersonal, educational and professional development of the actors (students and teachers) in safety, helping and nonviolence atmosphere.

**Conclusion.** Modern Russian education is undergoing yet another "era of change." Once again, it seeks development paths worthy of its historical past. In addition, the distinguishing feature here is innovative processes that affect all areas of the educational process, including not only the types of education, pedagogical methodology and psychology, but also the personality of the teacher and student.

The ability to innovation and development is a function of the personal, interpersonal and organizational harmony. In developing an integrative coping model for students and teachers, it is important to consider the prevention and correction of stress in the context of correcting the development of the subjects of education in different contexts: in the context of educational or professional and personal interaction.

We consider it important to introduce the concept of stress of innovation and the concept of stress innovation in the educational process. The stress of innovation is the stress that occurs in the process and result of the introduction of innovation. The ability and ready to prevent and cope with stress of the innovations and other changes is a function of the harmony of intrapersonal, interpersonal and organizational relations. In developing an integrative prevention and coping model for students and teachers (in matetogenias and pediogenias), it is important to consider the prevention and correction of stress in the context of the development of the actors of education in different contexts: in the context of educational, professional, personal and interactional development. Prevention and correction of stress in innovative education (and in stress of the innovation) is associated with the prevention and correction of pediogenias (harm caused by incorrect, destructive, and pathologizing attitudes of teachers towards students), as well as correction and prevention of "matetogenias" (harm caused by incorrect, devastating, and pathologizing attitudes of students towards teachers). Although the share of the latter is supposed to

be relatively small, it has been growing lately, as the tension between pupils and teachers is growing. Modern educational institutions often mark not only the “usual” forms of confrontation between teachers and students (in the form of lower grades, pickiness, situational conflicts, etc.), but also forms that are close to directional, group bullying and other forms of the violations. In addition to educational and professional stress, therefore, in the work of preventing and correcting stress, developing the knowledge and skills of students and teachers in coping with stress, correction, and support of personal development and interpersonal relations in innovation process are important. Students and teachers in innovation need to be given effective techniques and integrative anti-stress assistance to cope with stress of the innovations while they are studying and work.

In addition to educational and professional stress in innovations and other changes it is important to take into account the stresses of personal development and interpersonal relations, which are associated with the “private” or “intimate-personal” as well as social aspects and layers of relationships. These are, for example, such characteristics as the social distance of relations between groups, the social status of a person and a group, the presence, and absence of stigmatization and isolation (ghettoization), readiness for close, trusting relationships (such as friendship, love, parenthood and mentoring), readiness to innovations and changes, etc. To overcome stress of the innovations and changes, it is necessary, in fact, also, but somewhat differently: at a strategic, in-depth level - accepting the fears, suffering of actors, their awareness of themselves as subjects of arbitrariness and violence against them, at the tactical level - dialogue with the subject of arbitrariness and violence, recognition of his acts as situations of arbitrariness.

The motivation for self-preservation (the need for security) is the fundamental motivational education of the individual, the implementation of which in every day and in transboundary (such as innovation) situations is the main and necessary condition for existence (Stepanova, Gridneva, Menshikov, Kassymova, Tokar, Merezhnikov, Arpentieva, 2018). Associated with it are the motives (intentions) of understanding - of themselves and the world, the motives of relations - with people and the motives of transformation - of themselves and the world. The “paradigm of invulnerability”, which characterizes everyday life, existence in an ordinary situation implies the fulfillment of the security condition as a matter of course. A person believes that he understands the world, has a satisfying relationship with people and is able to influence the world, to change. However, in an innovation, in transnormal situation, the fulfillment of this condition is problematic, the understanding of oneself and the world is lost, the illusions of control and many of the illusions of relationships are destroyed. Therefore, complex work with stress of innovations is needed, but not fragmentary. Different techniques and practices of coping with stress of the innovations will be productive and effective only in the context of a comprehensive work with students and teachers. Asymmetries, disharmony, mistakes, and incompleteness of educational and professional relations often mark the problems of interpersonal and intrapersonal relations. These problems actualized in changes and innovative situations. These asymmetries manifest themselves in pedagogical and administrative conflicts, in psychological burnout, overwork, and depression, in deviant behavior and deformations (personal and professional type), in diseases and injuries, accidents, deaths, including murder and suicide. Very often, a man cannot cope with stress, if he is deprived of faith in himself and life, support of his family, friends, comrades, and colleagues. Many men cannot cope with stress, if they weakened by illness and other injuries, if they does not have the knowledge and skills of co-development. The man cannot cope with stress, if he is not familiar with mechanisms of productive and effective transformation of stress and distress in changes and innovations.

For students and teachers, innovation is both a situation that generates stresses and crises at the personal, interpersonal and organizational levels, and a way to overcome such stresses, problems, and development crises. It is important to note the relationship of causes and consequences, as well as the manifestations of stress of teachers and students at the personal, interactive, educational and organizational levels. In addition, we consider it important to note that didactogeny, in which different researchers highlight pedagogical (violations that arise because of pedagogical errors or intentional violence by teachers) and matetogeny (violations that arise from teachers because of intentionally or unintentionally incorrect and / or violent behavior from students), also form a single system. Only in theoretical terms can one divide the single process of a disturbed, pathologizing man or woman as a person, as a partner and as a (future) professional, didactic communication in practice, these processes are closely related.

Г. К. Касымова<sup>1</sup>, Г. В. Валеева<sup>2</sup>, О. П. Степанова<sup>3</sup>, О. А. Горошенова<sup>4</sup>,  
Р. Р. Гасанова<sup>5</sup>, А. А. Кулакова<sup>6</sup>, П. В. Меньшиков<sup>7</sup>,  
М. Р. Арпентьева<sup>7</sup>, С. К. Досаева<sup>8</sup>, Г. В. Гарбузова<sup>9</sup>

<sup>1</sup>Абай атындағы Қазақ ұлттық педагогикалық университеті; Satbayev University, Қазақстан және Джокьякарта мемлекеттік университеті, Индонезия,

<sup>2</sup>Челябинск мемлекеттік педагогикалық университеті,

Орал мемлекеттік гуманитарлық-педагогикалық университеті, Ресей,

<sup>3</sup>Магнитогорск мемлекеттік техникалық университеті Ф. И. Носова, Челябині облысы, Ресей,

<sup>4</sup>Иркутск ұлттық ғылыми-техникалық университеті, Ресей,

<sup>5</sup>Педагогикалық білім беру факультеті, М. В. Ломоносов Мәскеу мемлекеттік университеті, Ресей,

<sup>6</sup>Заң институты және М. М. Сперанский, Владимир мемлекеттік университет және А. Г. мен Н. Г. Столетовтар, Ресей,

<sup>7</sup>Циолковский атындағы Калуга мемлекеттік университеті, Ресей,

<sup>8</sup>Қазақстан Республикасы Ұлттық ғылым академиясы, Алматы, Қазақстан,

<sup>9</sup>Брянск мемлекеттік техникалық университеті, Ресей

### БІЛІМ БЕРУІНДЕГІ ИННОВАЦИЯ ЖӘНЕ ИННОВАЦИЯЛЫҚ СТРЕСС

**Аннотация.** Мақалада инновацияның стрестері туралы айтылады. Авторлар стресс-инновация тұжырымдамасын ұсынады. Инновациялық стресс - бұл инновацияны енгізу процесінде және нәтижесінде пайда болатын стресс. Студенттер мен оқытушылар үшін инновация дегеніміз - бұл жеке тұлғааралық және ұйымдастырушылық деңгейлердегі күйзелістер мен дағдарыстарды тудыратын жағдай, сондай-ақ осындай күйзелістер, проблемалар мен даму дағдарыстарын жеңудің жолы. Мұның себептері мен салдарының байланысын, сонымен қатар мұғалімдер мен студенттердің жеке, интерактивті, білім беру және ұйымдастырушылық деңгейлеріндегі стрестің көріністерін атап өткен жөн. Біздің зерттеуіміздің негізгі мақсаты - білім берудегі жаңашылдықтың стрестері мұғалімдер мен студенттердің кәсіби және академиялық жетістіктеріне қалай әсер ететінін және бұл олардың өздеріне, денсаулығына және жалпы өміріне қанағаттануға қалай әсер ететінін анықтау. Біздің зерттеуіміздің негізгі әдісі студенттер мен оқытушылар арасындағы инновация стресінің проблемаларына теориялық талдау жасау болды. Алынған нәтижелер оқушыларға (студенттерге) және мұғалімдерге ұйымдастырушылық-дидактикалық даму мен тоқырау жағдайындағы, реформалар мен басқа да өзгерістер жағдайындағы жаңашылдық стресінің алдын-алу мен түзетудің тиімді және тиімді әдістері бойынша оқытудың қажет емес екендігін көрсетеді. Бала мен ересек адамның психикасындағы дағдарыс және күйзеліс - бұл девиантты мінез-құлықтың, даму бұзылыстарының, аурулардың және жарақаттардың және басқалардың пайда болу және шоғырлану қаупін артатын жағдайлар. Осы өзгерістер оқыту мен тәрбиелеу жағдайында айқынырақ бола бастайды. жұмыс және демалыс инновация және басқа да өзгерістер процесінде қалыптасқан және өзгеретін қатынастар ескерілмейді. Білім берудегі барлық тиімді және тиімді инновациялар бір идеямен байланысты - адамның тұлға, серіктес және кәсіби тұлға ретінде дамуы сөзсіз, мүмкін емес мүмкін болатын жағдайлар жасау. Студенттер мен оқытушылар үшін стресстің алдын-алу және жеңудің интегративті моделін жасау кезінде (матетогения және педигениямен) білім беру, кәсіптік, жеке және интерактивті даму жағдайында білім беру субъектілерінің дамуы жағдайында стресстің алдын-алу және түзету міндеттерін қою қажет. Инновациялық білім берудегі стрестің алдын-алу және түзету (және жаңашылдық стрестері) педиогенездің алдын-алу және түзету (мұғалімдердің оқушыларға дұрыс емес, деструктивті және патологиялық қатынасынан туындаған зиян), сонымен бірге матетогенияны (қате, деструктивті және патологиялық салдарынан болатын залал) түзету және алдын-алу. оқушылардың мұғалімдерге қатынасы). Жұмыстың құрамдас бөліктерінің бірі - білім беру субъектілеріне кеңес беру. Мұндай көмек жүйелік, интегративті профилактикаға және білім берудегі стресті, оның ішінде инновациялық стресті түзетуге бағытталған болуы керек.

**Түйін сөздер:** стресс, инновация, педиогения, матетогения, стресті басқару, студенттер, оқытушылар, дағдарысты басқару, психологиялық көмек.

Г. К. Касымова<sup>1</sup>, Г. В. Валеева<sup>2</sup>, О. П. Степанова<sup>3</sup>, О. А. Горошенова<sup>4</sup>, Р. Р. Гасанова<sup>5</sup>,  
А. А. Кулакова<sup>6</sup>, П. В. Меньшиков<sup>7</sup>, М. Р. Арпентьева<sup>7</sup>, С. К. Досаева<sup>8</sup>, Г. В. Гарбузова<sup>9</sup>

<sup>1</sup>Казахский Национальный педагогический университет им. Абая, Satbayev University, Казахстан  
и Джокьякартский государственный университет, Индонезия,

<sup>2</sup>Челябинский государственный педагогический университет, Уральский государственный гуманитарно-педагогический университет, Россия,

<sup>3</sup>Магнитогорский государственный технический университет им. Г. И. Носова, Челябинская область, Россия,

<sup>4</sup>Иркутский национальный исследовательский технический университет, Россия,

<sup>5</sup>Факультет педагогического образования,

Московский государственный университет им. М. В. Ломоносова, Россия,

<sup>6</sup>Юридический институт им. М. М. Сперанского, Владимирский государственный университет им. А. Г. и Н. Г. Столетовых, Россия,

<sup>7</sup>Калужский государственный университет им. К. Э. Циолковского, Россия,

<sup>8</sup>Национальная академия наук Республики Казахстан, Алматы, Казахстан,

<sup>9</sup>Брянский государственный технический университет, Россия

### СТРЕСС ИННОВАЦИЙ И ИННОВАЦИИ В ОБРАЗОВАНИИ

**Аннотация.** Статья посвящена стрессу инноваций. Авторы вводят понятие стресса инноваций. Стресс инноваций - это стресс, который возникает в процессе и результате введения инноваций. Для студентов и преподавателей инновации являются как ситуацией, порождающей стрессы и кризисы персонального, интерперсонального и организационного уровней, так и способом преодоления таких стрессов, проблем, и кризисов развития. Важно отметить взаимосвязь причин и последствий, а также проявлений стрессов преподавателей и студентов на личностном, интерактивном, учебном и организационном уровнях. Основные цели нашего исследования - выяснить, как стресс от инноваций в образовании влияет на профессиональный и академический успех преподавателей и студентов, и как это влияет на их удовлетворенность собой, своим здоровьем и жизнью в целом. Основным методом нашего исследования был теоретический анализ проблем стресса инноваций у студентов и преподавателей. Полученные результаты показывают, что ученики (студенты) и учителя нуждаются не только в обучении продуктивным и эффективным методам предотвращения и коррекции стресса нововведений в ситуациях организационно-дидактического развития и застоя, реформ и других изменений. Кризисные и стрессовые состояния психики ребенка и взрослого человека - это состояния, при которых возрастает риск формирования и закрепления девиантного поведения, нарушений развития, заболеваний и травм и т. д. Эти изменения становятся более выраженными в тех случаях, когда в условиях обучения и воспитания, работы и отдыха существующие и изменяющиеся отношения в процессе инноваций и другие изменения не принимаются во внимание. Все продуктивные и эффективные инновации в образовании связаны одной идеей - созданием условий, при которых развитие человека как личности, партнера и профессионала неизбежно, а не просто заявлено или невозможно. При разработке интегративной модели профилактики и преодоления стресса для учащихся и преподавателей (при матетогениях и педиогениях) важно ставить задачи профилактики и коррекции стресса в контексте развития субъектов образования в разных контекстах: в контексте образовательного, профессионального, личностного и интерактивного развития. Профилактика и коррекция стресса в инновационном образовании (и в стрессе от инноваций) связана с профилактикой и коррекцией педиогений (вреда, вызванного неправильным, разрушительным и патологизирующим отношением учителей к ученикам), а также коррекцией и профилактикой матетогений (вреда, причиняемого неправильным, разрушительным и патологизирующим отношением учащихся к учителям). Один из компонентов работы - консультативная помощь субъектам образования. Такая помощь должна быть направлена на системную, интегративную профилактику и коррекцию стрессов в образовании, включая стрессовые инновации.

**Ключевые слова:** стресс, инновация, педиогения, матетогения, преодоление стресса, студенты, учителя, антикризисное управление, психологическая помощь.

#### Information about authors:

Kassymova G. K., PhD doctoral candidate, senior lecturer at Abai Kazakh National Pedagogical University; Satbayev University in Almaty, Kazakhstan; University Negeri Yogyakarta, Indonesia / Yogyakarta State University, Indonesia; zhaina.kassym@gmail.com; <https://orcid.org/0000-0001-7004-3864>

Valeeva G. V., Candidate (PhD) of Psychological Sciences, Associate Professor of the Department of Life Safety and Biomedical Disciplines, Higher school of physical culture and sports Ural state humanitarian-pedagogical University, Chelyabinsk, Russia; valeeva-chel@mail.ru

Stepanova O. P., Candidate (PhD) of Psychological Sciences, Head of the Department of Psychology at the Institute of Humanitarian Education, Nosov Magnitogorsk State Technical University, Magnitogorsk, Chelyabinsk region, Russia; olga.psihea@mail.ru



Goroshchenova O. A., Candidate of Sciences (PhD) in History, Associate Professor of the Department of History and Philosophy, professor Russian Academy of Sciences, Director of the Museum of the National Research Irkutsk State Technical University, Irkutsk National Research Technical University, Irkutsk, Russia; goroshionov@mail.ru

Gasanova R. R., Candidate(PhD) of Psychology, Senior Lecturer, Department of History and Philosophy of Education, Deputy Dean of the Faculty of Pedagogical Education, M. V. Lomonosov Moscow State University, Russia; renata\_g@bk.ru; <https://orcid.org/0000-0002-4641-0019>

Kulakova A. A., Candidate (PhD) of Law, Associate Professor, Associate Professor of the Department of Civil Law and Procedure of the Speranskiy Law Institute, Vladimir State University named after A.G. and N. G. Stoletovs, Russia; annakulakova33@yandex.ru

Menshikov P. V., Candidate (PhD) of Psychological Sciences, Associate Professor, Associate Professor of the Department of Psychology of Development and Education, Tsiolkovskiy Kaluga state University, Russia; edeltanne@list.ru

Arpentieva M. R., grand doctor (Grand PhD) of psychological Sciences, associate professor, corresponding member of the Russian academy of natural sciences (RANS), professor of the department at the development and education psychology, Tsiolkovskiy Kaluga state University, Russia; mariam\_rav@mail.ru; <https://orcid.org/0000-0003-3249-4941>

Dossayeva S. K., Head of the Department of Science, National academy of sciences of the Republic of Kazakhstan, Almaty, Kazakhstan; s.dosaeva@mail.ru

Garbuzva G. V., Candidate (PhD) of Psychological Sciences, Associate Professor, Associate Professor of the department of the Engineering Pedagogy and Psychology, Bryansk State Technical University, Russia; garbuzowagalya@yandex.ru, <https://orcid.org/0000-0001-7675-3269>

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