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## Inclusive Health-Saving Education: Ecological Model of Modern Educational Relations

**Abstract:** An ecological approach to understanding health saving in inclusive educational relationships means that the goal of the teacher and students is to build such relationships and implement such processes and forms of interaction in which “everyone and every one” of the participants wins, a consensus is reached as the point at which they find their best satisfaction. This requires a clear understanding of what is and what is not education and society, what is and what is not a person and society, what is and what is not development and harmony, and what is and what is not transparency and health. The purpose of the study is to analyze the ecological approach to understanding health saving in inclusive educational relations. The research method is a theoretical analysis of the ecological approach to understanding health saving in inclusive educational relations. Inclusive health-saving education is discussed as a part of the ecological model of modern educational relations. Inclusive health-saving education is a part of the ecological model of modern educational relations. Within the framework of exclusive school education, ignoring the tasks of health protection and development, there is a high chance of negative impact, mathetogenesis, and pediogenesis, it is difficult for an individual to become a student, to realize the existence of different strategies, forms, and types of learning activity and learning relationships. Thanks to inclusion, people can experience themselves and the world as different, in different situations. Inclusion allows minimizing (prevention), overcoming (correction and development, or rethinking many problems of an individual or group).

**Keywords:** inclusiveness, educational relations, health saving, ecological approach to understanding health saving, inclusive educational relations.

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## **Introduction**

Inclusive health-saving education is a part of the ecological model of modern educational relations. Inclusion is a deeply ecological option for building educational and other social relations. One of the leading focuses, in this case, is the problem of health saving of the subjects of the inclusive process. An ecological approach to understanding health saving in inclusive educational relations means that health is recognized as the central criterion and goal for the success of inclusive educational relations: teaching and educating a person as a fully functioning integrity suggests that his life is the life of a spiritually, psychophysically and socially healthy being, self-actualizing and self-realizing, harmonious and transparent. In other cases, a person one way or another slides into ill health, illness, including various kinds of addictions, drug addictions, etc.

An ecological approach to understanding health saving in inclusive educational relationships means that the goal of the teacher and students is to build such relationships, implement such processes and forms of interaction in which "everyone and every one" of the participants wins, a consensus is reached as the point at which they find their best satisfaction. Multidirectional social trends cause a wide variety of individual and social problems that require, to varying degrees, urgent solutions deployed in time and space, conscious, multiple, and purposeful transformations. Among a number of ideas that both the researcher and practitioners rely on to overcome these problems and choose the vector of directions for transforming difficult and crisis situations, the idea of environmental friendliness is often used (Arpentieva, 2017; Borovskaya et al., 2020; Panichkina et al., 2022; Podberezniy et al., 2022; Kassymova et al., 2023a; Kassymova et al., 2023b). The ecological imperative as the imperative of caring about the essence of things, about the correspondence of actions and efforts to the goals and possibilities of change, is now a system of requirements and guidelines for human concern for the harmony and transparency of the relationship of the individual and the group with the surrounding worlds of nature and culture, with oneself and one's inner self world (Arpentieva, 2021; Arpentieva et al., 2019; Kassymova et al., 2018; Kassymova et al., 2019; Kassymova et al., 2023a; Kassymova et al., 2023b). The idea or the imperative of sustainability is applicable to various areas of the life of society, organizations, and individuals. It is responsible for creating ever-new and important approaches, concepts, and technologies in modern science and practice. In education, the environmental imperative is associated with the implementation of the concepts and theories of "lifelong education" or lifelong education, competence-based training and upbringing, and the "surviving", "adventure" model of training and upbringing (Arpentieva, 2017; Borovskaya et al., 2020; Panichkina et al., 2022; Podberezniy V. et al., 2022; Podberezniy, Arpentieva, Panichkina, 2023; Kassymova G. et al., 2023a; Kassymova G. et al., 2023b). It is also associated with the ideas of individualized and special education focused on the individuality of students and teachers, as well as with the ideas of health-saving and inclusive education (M. Afshar Ali, Kh. Alam, A. Magyar, S. Schwab, F. Stanford, B. Taylor, Sh. Rafiq, M. Venetz, C. Zurbriggen). Each of these and other areas of the implementation of the environmental imperative is the scope of numerous developments and scientific works, however, there are few studies devoted to their understanding as environmental, and there are practically no works related to the study of health-saving as an environmental category, including in the context of inclusion. At the same time, the heuristic potential of the ecological approach to understanding health saving in inclusive educational relations is very significant. In addition, it has significant practical significance and value: the environmental imperative helps to identify and implement the most effective and productive ways of transforming and overcoming existing problems and barriers to their solution, without sacrificing either the tasks of developing and moving forward or the tasks of preserving the existing one (Arpentieva, 2017; Borovskaya et al., 2020; Panichkina et al., 2022; Podberezniy et al., 2022; Kassymova et al., 2023a; Kassymova et al., 2023b).

However, in modern science and practice, environmental ideas often come down to anti-ecological, pseudo-practical, and pseudo-scientific ideas of "sustainable development", emphasizing the importance of some mythical "stability" that does not exist in the world and fear of changes in the BANI and VUCA worlds. However, both in culture and in nature, stability is realized in two main variants: as stagnation ("stagnation") and a stage on the way to collapse (destruction) and as a "plateau" insignificant in size and time of existence on the way to development, a delay which is fraught with destruction and death. The goal of inclusive education, even if we take into account its function of health preservation, the function of preserving and transmitting culture, is precisely the development and support of the development of the

individual as a whole: educational programs (contents), methods (forms, technologies) of an inclusive school at all its levels must be constantly updated and change (Malygina, Antoshina, 2020). This flawed model is generally associated with the "marketing" model of inclusion. According to this model, people with special needs (disabled people) are primarily interested in it, and normotypical individuals act only as a means of satisfying these needs (Genta et al, 2020; Matsiori, 2020; Olalla, Merino, 2020; Podberezniy, Arpentyeva, Panichkina, 2023; Podberezniy et al., 2023), which, of course, causes rejection among the latter, as well as rent expectations and consumer attitudes among the former. This significantly violates the requirement to include a schoolchild or student with disabilities or other characteristics (abnormal, queer) in the school or university educational environment and the team of peers and teachers without infringing on the rights and needs of healthy (normally typical) students. Inclusion should therefore not be reduced to the creation of an adaptive environment that acts as a "melting pot", even when it comes to health protection. For health conservation as an idea, it is important to abandon repressive diversity management practices: to suppress diversity and individuality for the sake of orderliness and stability.

However, the focus on adaptation and assimilation (both on the part of people with disabilities and other inclusive groups and on the part of the social majority groups that accept them), on the essentialist division of "right" and "wrong" values and attitudes, patterns of behavior/interaction, identities, and traditions, to "correct" the "wrong" ones and assimilate the "correct" ones, is fundamentally ineffective. It is ineffective both within the framework of the changes of modernity and the challenges of life associated with them, and the general, traditional goals of general, special, and inclusive education (Grillo, 2003; Lie, 1995; Podberezniy et al., 2023). Stability and enforcement are the source of "differentialist racism" (Balibar, Wallerstein 2004), which proclaims "noble" goals (preservation of diversity, tolerance, security, inclusion) in order to strengthen and rigidly fix the boundaries between people and groups, creating a caste, highly stratified and rigid community. Accordingly, "stability" as an idea of education practically destroys the very possibility of inclusion, proclaimed as the ideal of modern education at its various levels. Only the rejection of "leveling" and assimilation helps to overcome the anti-ecological aspects of "stability" and understand the essence of "instability" as an important, but not the only part of life: both revolutions and involutions and periods of accumulation of changes and periods of gradual changes are important in the life of a person, an organization and society (Tully 2008). At the same time, different subjects are forced, with interest or out of habit, but are included in a direct discussion (Kozlova, Mikheev, 2020). Dialogue as an ecological option for integration is a guarantee of development and change, and a guarantee of protecting individual and social harmony and freedom, preventing and overcoming exclusion and injustice, and equalizing the status of different subjects (Kozlova, Mikheev, 2020). The concept of exclusion or social exclusion by R. Lenoir (1974) is associated with the fixation on rejected groups: socially unprotected, rejected (stigmatized and subjected to bullying and alienation, going through discrimination and deprivation) minority groups (Makeeva, 2020). Exclusion, including for the sake of stability, is a manifestation and process of experiencing total social disadvantage, limited or lack of access to necessary and sufficient resources, exclusion of a person or group from society, shifting him to the "social bottom", to marginal "borderline" zones, etc.

This happens, among other things, as a result of a "chain reaction" and the breakdown of several or all social systems and relationships (Atkinson, 2000; Gore, 1995; Paugam, 1996). Overcoming the "exchange" model of "sustainable development", which manifests the agony of the bourgeois system, is associated with the chance to go beyond pragmatism and consumerism, understanding inclusion as "education for the disabled". Connecting the ideas of "empathy of society", it reflects the importance of the ecological culture of the subjects of education, and the dialogical, development-oriented nature of the relationship of these subjects to other subjects. Like the ecological imperative, the education imperative, its central task, is connected precisely with development (Arpentyeva et al., 2019; Arpentyeva et al., 2020; Podberezniy et al., 2023).

## **Research Methodology**

The purpose of the study is to analyze the ecological approach to understanding health saving in inclusive educational relations. The research method is a theoretical analysis of the ecological approach to understanding health saving in inclusive educational relations. The ecological approach is aimed at changing the priorities of education (Karopa, 2012; Niyazova, 2020; Oleinikov, & Podlesny, 2013;

Podberezniy, Arpentyeva, Panichkina, 2023). Considerable attention is paid to the problem of the ecological approach. However, most foreign and domestic research is not devoted to the problems of teacher education, but to certain issues of general and environmental psychology (U. Bronfenbrenner, J. Gibson, K. Levin, R. Barker, J. Sallies, J. Kerr, R. Cervero, R. Lickliter, Yu.I. Alexandrov, V.I. Panov, etc.). In fact, there are no special studies of theoretical and methodological foundations and the development of technologies and conditions for an ecological approach to organizing and improving the educational environment in the professional training of a teacher/teacher. The ecological approach is created by S. Barab and U.-M. Roth, proposes taking into account the "network of opportunities", "sets of efficiencies" and "life worlds" as the main elements of personality development in education. Opportunity networks characterize the opportunities that provide the subject with the possession of new knowledge and its application. Efficiency sets represent the skills and abilities necessary for the effective and productive use of knowledge. Life-worlds involve inscribing new knowledge into the subject's worldview (Barab S.A., Roth W.-M., 2006). The central term of the ecological approach is "affordance" (affordance), proposed by J. Gibson. "Affordance" is a concept that unites the organism and the environment.

According to J. Gibson, affordance is the opportunities that the surrounding world (environment) provides to the individual, that is, the "complementarity" of the individual and the environment. Learning is the process of forming new affordances based on previously acquired individual experience. In the context of this understanding, the environment is divided (differentiated) in one way or another in accordance with the experience of the individual's behavioral acts throughout the history of his individual development. In affordances, the individual reflects not the external physical world (as such), but the history of his relationship with the ecological world. In the theory of the ecological approach, an individual's understanding of the environment is based on assessments of its relationship with objects and goals/results of behavior. The environment of the bottom of the individual is the result of realized (both externally and internally) behavioral (activity) acts. In recent years, the concept of a "learning ecosystem" (Learning Ecosystem) has gained popularity (Oleynikov, & Podlesny, 2013; Brodo, 2006; Guetl & Chang, 2008; Pirie, 2004:), it is sometimes argued that the future of E-learning (Electronic Learning is the Learning ecosystem (Uden, Wangsa, Damiani, 2007; Dong et al., 2009; Sheriyev et al., 2016; Arlinwibowo et al., 2020; Pratama et al., 2022).

## **Research Results and Discussions**

The term "ecology" was introduced by E. Haeckel (1866), who considered the connection between living beings and the environment to be the subject of ecology research. The ecology of education is a system of knowledge, skills and abilities, value orientations of a teacher, and special measures and activities that help the teaching staff of an educational institution make the educational process healthier, develop a strategy for ensuring a healthy lifestyle for all participants in the educational process, healthy learning and education in the classroom and in the course of socially useful activities. The ecology of education covers the mode of the educational process in the course of active interaction with other children and teachers. It also includes various areas and methods of bio- and psychodiagnostics and correction. The concept of the "ecological approach" was first introduced into the subject area of environmental psychology by the American Psychologist J. Gibson (1966). The term "learning ecology" was proposed by J.S. Brown when studying the issues of changing teaching strategies, and V.P. Maykova, A. Richardson, and R.D. Crick identified the principles of green learning and identified the factors that influence its effectiveness (Brown Richardson, 2002 and others). At present, the ecological approach is aimed at the formation and development of ecological consciousness, including the ecological responsibility of a person to society. Ecology has gone beyond the boundaries defined by E. Haeckel (1866), now social pedagogy and educational psychology are areas of widespread use of the "ecological approach" (Deryabo, 1999; Sokolova, 2014). The ecological approach provides for a revision of the usual methods of teaching and education from the standpoint of the ecology of man and society, and the development of new educational technologies that are more natural and culturally appropriate. Over time, the goal of environmental education becomes not so much the formation of individual environmental competencies, but the development of environmental culture and an ecological approach to understanding a person and his life, including education (Moiseeva L.V., Fayrushina S.M., 2017). Education, as a subsystem of an evolving society, changes in parallel with this society, the external and internal conditions for the formation of a

person change, while one of the highest social goals is precisely education, corresponding (according to V.I. Vernadskiy) to an educational society (Tyumaseva Z.I., 2006). Taking into account the variety of interdependent factors influencing the educational environment, as well as the "global scale" of the ongoing content and structural changes, from the methodological positions of modern pedagogy, education is considered a living, dynamically developing system, which brings it closer to ecology ("habitat of organisms") and requires its rethinking from the standpoint of the concept of "ecology of learning" (an ecology of learning), which can be understood as "natural learning" or "natural learning". The need for a new, environmentally friendly approach to education is due to the fact that the usual models of learning (traditional classroom learning, learning based on ICT technologies, blended learning) are poorly oriented to the needs of modern society. Scientists note the need to create a learning system focused on understanding the systems and environments in which a person exists, as well as on the reflection of lived situations (Banathy, 1991; Blewitt, 2006; Crick, 2007; Hill, Wilson, Watson, 2004; Korochistova, Nagel, 2022; Maykova, 2013; Sadovskaya and Padporyn, 2018).

An environmentally friendly educational environment is characterized by a wide range of focuses: focus on the learning context; integrity and ease; person-centered approach; orientation to the application of knowledge in real life; "learning throughout life"; development of critical thinking and non-standard problem solving; team interaction in solving educational problems; research skills; active use of digital resources and wide access to multimodal visual materials. In the framework of this study, we will dwell in more detail on the last two aspects, namely, the "redundancy" of digital and multimedia tools in teaching to influence all channels of perception in order to select the most appropriate learning style (Korochistova, Nagel, 2022).

According to the theory of U. Bronfenbrenner, the various environments in which people participate directly influence their transformations, including development. Humans are born with a range of genetic attributes that develop depending on the person's contact with the environment. Systems related to the environment of people play different roles, in proportion to their properties: at the same time, each of the large systems contains smaller ones: microsystem, mesosystem, exosystem, macrosystem, and chronosystem.

Relationships established in microsystems are characterized by the greatest influence on human development. The microsystem is the level closest to man. This includes the behaviors, roles, and attitudes that are characteristic of the day-to-day environment in which the person operates. The environments in which people spend most of the day are usually stable, not very diverse. However, at certain times they can be changed and directly affect a person.

The mesosystem includes the relationship between two or more environments in which a person actively participates. Thus, the mesosystem is understood as a system of microsystems that are formed or expanded when a person enters a new environment (the relationship between family and work or social life and school). Fluctuations in communications developed in each of the connected microsystems will determine the relationship between them and human development in each of them. This element is associated with the expansion or narrowing of the rights and possibilities of behavior. The mesosystem determines the degree of social support that a person has. Depending on the interconnection and addition of microsystems, a person will see or not see the satisfaction of his need for support.

The exosystem includes environments in which a person does not directly participate, but in which events occur that affect the functioning of his environment. The individual is not directly involved in these contexts (although in some cases he may be), but the changes made in this environment usually affect the individual in one way or another. The relations and opinions established in the exosystem (acquaintances, relatives, etc.) concern a person not directly, but indirectly. Relationships between third parties indirectly affect human development.

The macrosystem includes all factors related to culture and the historical and cultural moment in which a person. Usually, the structure and essence of micro, meso and exosystems are similar, built on the same model: the enormous influence of the macrosystem on its substructures is manifested. A significant part of personal development is limited by the norms and laws established at the government levels of the region in which the person lives. In addition to laws, there are other rules that determine social ratings, and the position of a person in society. Sociocultural norms determine the functioning of people, the socialization and coexistence of people, and establish operational standards that ensure mutual understanding.

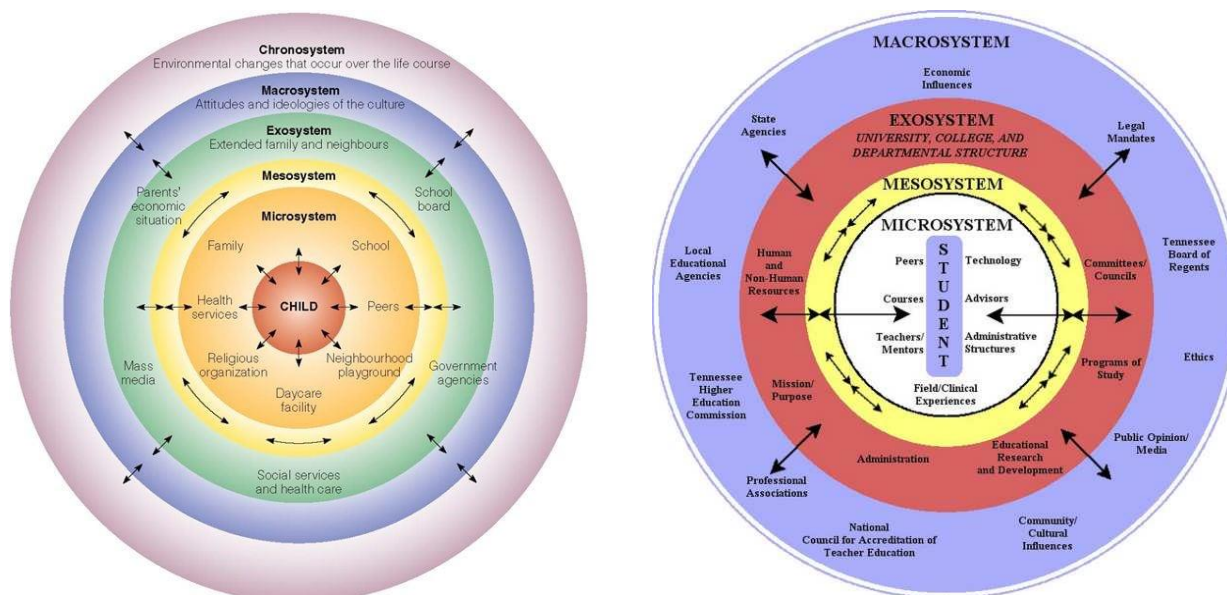
The fifth level is the chronosystem, it consists of all environmental changes that occur during life and affect development, including major life transitions and historical events. At the same time, development occurs in the process of increasingly complex interactions between an active, developing integral biopsychological individual and other people, situations, objects, and their symbolic reflections in his external environment. In order to understand the impact of these immediate processes on development, we must focus on the person, context, and outcomes of development, as these processes differ and affect people in different ways (Bronfenbrenner & Evans, 2000).

The experience of children with certain special educational needs is largely determined by their cultural differences; differences in the systems in which they are included. Understanding the ecology of these children can help strengthen the provision of social work services for these children (Paat, 2013). Research on youth mental health recovery suggests that the components of a child or young person's mental health recovery are embedded in the "environmental context of powerful relationships", consistent with U. Bronfenbrenner's theory that a person's ecological systems, such as peers, family, and school, contribute to mental health (Kelly, & Coughlan? 2019). Wilson et al. (2002) found that creating a positive school environment through a school spirit that values diversity has a positive effect on student attitudes at school. Langford, et al. (2014) found that whole-school approaches to health care can positively impact student achievement and well-being.

U. Bronfenbrenner defined the ecological approach as the scientific study of progressive mutual adjustment throughout the life of an active, developing human being and the changing properties of the immediate environment in which a person lives; he believes that this process is influenced by relationships within a given environment, as well as from the wider context in which this environment is included. "It should be noted that the subject is understood as a person actively shaping his own development. Between the subject and the social environment, there are relations of reversibility - the environment affects the subject and itself changes in the course of interaction with him. Society is presented not as a fixed, limited given, but as a complex dynamic system. The ecological approach shows that without taking into account the influence of social factors, it is impossible to adequately understand the formation of a human (Pictures 1 and 2).

According to U. Bronfenbrenner's model, human development is a dynamic process that goes in two directions. The first is the impact of various elements of the environment, the second is the activity of the person himself to restructure the multilevel living environment. U. Bronfenbrenner relied on K. Lewin's field theory. If K. Levin proceeded from the formula  $B=f(PE)$  (behavior is a function of personality and environment), then Bronfenbrenner used this formula a little differently:  $D=f(PE)$  – development is a function of personality and environment. Here, in contrast to the formulation of K. Levin, the time parameter appears: the characteristics of the subject at a given moment in time are directly due to the specifics of his characteristics and environment throughout his life up to this moment. In this sense, D is not so much a process of development as its result. Therefore, for example, the definition of a person's characteristics without taking into account the environment in which they were formed and applied is impossible from the standpoint of environmental psychology. It is known that different cultures require the development of different abilities depending on the cultural goals. In this context, inclusion is the successful inclusion of a person in all systems, a full-fledged dialogue with the outside world at all four levels.

Inclusion in education is a way to implement the ecological imperative of a person to a person, a group to a group, etc. (Afshar et al., 2020; Lyskova et al., 2023; Magyar et al., 2020; Schwab et al., 2020; Stanford, 2020; Stroebel, 1996; Posypanova et al., 2021; Podberezniy et al., 2023; Stepanova et al., 2021). It is such a way and way of organizing education, which allows children, adolescents, youths, and adults of different subcultures to interact with each other, satisfying the needs for mutual assistance and cooperation, service and care, self-improvement and mutual improvement, exchange and management of knowledge and skills (competencies). In foreign countries, such education has been developing for a long time and is legally enshrined. The essence of inclusive education is a system of views that do not allow any discrimination against children and also helps to realize in the educational environment the necessary conditions that people need. Inclusive education is based on an ideology that excludes any discrimination against children, ensures equal treatment of all people, and creates special conditions for children with special educational needs. We are talking about children with special needs, with disabilities, with disabilities.



**Pictures 1 and 2.** Human development systems according to U. Bronfenbrenner (Evans, 2023 and others)

The ecological approach confirmed that developmental deviations do not completely determine the present and future life of the child; the life trajectory is also a derivative of favorable/unfavorable external conditions. System-ecological (or ecosystem), real-procedural, cooperative-activity, and medical-philosophical concepts in the 21st century inherits the views of the previous period and consider the child in relation to the surrounding world and the conditions that are created / should be created for his / her development (Feuser, 2001; Haeberlin, 2000; Reiser, 2006). New studies have confirmed the qualities of inclusive education as an environment in which the development of children with disabilities proceeds according to a positive scenario and ensures inclusion in society. In continuation of research on the influence and interaction of a child with disabilities with the environment within the framework of the system-ecological concept, A. Sander developed a psychodiagnostic study scheme "Child - environment - analysis" (Heimlich, 2022; Sander, 2002).

The child's psyche is considered from two aspects: not only the state of his mental sphere is fixed, but also the features of the external space, in particular the influence of reference persons, which forms the inner circle of people and his exceptional situation inherent in his life. The appearance of this methodology confirms the latest approach in special education: when organizing psychological and pedagogical assistance and its area - the forms and concept of education - environmental factors that determine the nature of communication and the course of the child's further development cannot be ignored at the beginning of the XXI century. The psychological and pedagogical theory is replenished with arguments "for" in favor of joint education and its priority over separation. G. Reiser and G. Voiser consider inclusive education to be conditions that improve the quality of life of children with disabilities through social acceptance and diverse contacts. The earliest studies of the patterns of development of children with disabilities, the merits and ways of integrating them into a mass school date back to the first third of the 20th century, L.S. Vygotsky called the driving forces for ensuring the mental development of the child - from internal, biological sources (anatomical and physiological prerequisites for the transformation of the psyche) and external, which form the cultural and historical conditions and the social situation of development in the form of certain relationships with other people. This classification made it possible to distinguish between primary and secondary (biological and social) disorders. Anomalies of the body L.S. Vygotsky described as primary disorders that provoke the appearance of secondary, derivative defects (due to an unfavorable situation in the microsociety and society) and the formation of the child's personality in a depleted space. To the variety of unfavorable situations, L.S. Vygotsky attributed the education of children with disabilities in a special school, to depriving them of contact with healthy children. The situation of isolation contributes to the excessive concentration of the child on their own defects and disabilities. In the future, these personality traits form significant barriers to contact and vigorous activity among healthy people who are not included in the inner circle. In general, the theoretical and applied areas of inclusion in



Russia and abroad are developing according to similar ideas. According to modern researchers, inclusive education is a long-term educational strategy that involves great patience and tolerance (acceptance and respect), systematic and interdisciplinarity of efforts, consistency, and continuity of activity aimed at building a dialogue between subjects of education. Inclusion involves the involvement in the learning process of each object of the educational process (a pupil of a preschool institution, a pupil, a student) with the help of an educational program that matches his abilities, as well as the satisfaction of individual educational needs, the provision of special conditions (Leshner, Demenina 2015). Inclusive education is essentially a multi-stage system that includes different groups of subjects and stakeholders with social, functional, and other differences. It is aimed at (re)habilitation, (re)socialization in the process of education and upbringing, at school - in the context of preparation for life in general, in college, vocational school, or university - in the context of professionalization (Boiko et al., 2020; Lyskova et al., 2023; Podberezniy et al., 2023).

The general principles of an environmentally friendly health-saving inclusive educational environment include 1) the principle of the earliest possible inclusion of a person with disabilities in an inclusive environment, which creates conditions for the optimal early and full formation and development of social interaction abilities; 2) the principle of active cooperation, mutual assistance and consensus of the efforts of parents and an interdisciplinary team of specialists, the polysubjectivity of the educational space-time, which ensures the success (efficiency) of accompanying the processes of upbringing and education of a schoolchild or student with disabilities; 3) the principle of individual orientation of education, in particular, individual educational trajectories for students with disabilities; 4) the principle of development of the educational environment, including the model of an educational institution (kindergarten, school, university), 5) the principle of the priority of education (socialization): the formation and development of social competencies and experience, including partnership; 6) socio-psychologically safe, barrier-free environment; 7) development of competence and enrichment of the palette of vectors of professional development of specialists and other subjects of education, 8) the principle of caring for health as a holistic and developing phenomenon (Nazarova, Bogdanova, 2019; Bayramov, Gerasimov, 2019; Booth, Ainscow, 2020; Kassymova et al., 2023a; Kassymova et al., 2023b; Podberezniy et al., 2023; Podberezniy, Arpent'eva, Panichkina, 2023; Silver, 2012).

Health-saving inclusive practice is necessary for society, parents, and educators to accurately and timely prevent, identify and correct blockades and barriers to harmonious and transparent social interaction, accepting and collaborating relationships, mutual assistance and service, creativity, and participation (Bishop & Noguera, 2019; Suchkov, 2020; Pandit, 2017; Spratt and Florian, 2013; Robo, 2014; Posypanova et al., 2021; Stepanova et al., 2021). Inclusion as a doctrine is associated with a certain stage of psychosocial maturity, and culture of individuals, groups, and societies. It involves carefully built, reflective, and corrected structures of interaction between the student's family and society and with other families, school/university, and other social institutions (Volkova, Henchel, 2020; Imms et al., 2016; Podberezniy et al., 2023). At each stage of inclusive educational relations, health-saving inclusive practice acts as an environmental imperative. It involves certain semantic aspects and technological solutions in educational environments as environments for supporting human development as a fully functioning, psychologically, physically, socially, and spiritually healthy entity (Arpentyeva, 2017; Borovskaya et al., 2020; Panichkina et al., 2022; Podberezniy et al., 2023; Kassymova et al., 2023a; Kassymova et al., 2023b; Lyskova et al., 2023).

Individualization of the educational environment of an educational institution is possible and productive, provided that it will be transformed in accordance with the subtle and precise differentiation of the educational and other needs and opportunities of the child, and his health (Kuzmicheva, Afonkina, 2020), as well as with a focus on "human-like" education in general (Khutorskoy, 2020). The mechanism of individualization of a health-saving inclusive educational environment is creativity and changes in health-saving inclusive environmental complexes, which involves a reflexive analysis of the components of the educational environment and activities, interdisciplinary interaction of specialists supporting children, adolescents and young men with disabilities, etc. (Kassymova et al., 2023a; Kassymova et al., 2023b; Shemanov and Makaeva, 2016; Posypanova et al.; 2021; Podberezniy, Arpentieva, Panichkina, 2023; Stepanova et al., 2021; Zakirova, Nikitina, 2016; Zollers, et al., 2010).

The basis of inclusive education is an ideology that pays attention to the importance of special conditions for students with special educational and other needs (Ushakova, 2020), it is not a discovery of our time and has existed for many decades (A. Blanchet, S. Geinik, I. G. Pestalozzi, and, further - M.



Montessori, N. Benk, B. Nirie, B. Person, F. Galton, J. Pereira, J. Itard, E. Seguin, G. Hanselman). An essentially ecological understanding of the education of people with disabilities was proposed by I.P. Pavlov: "... nothing remains motionless, unyielding, and everything can always be achieved, change for the better, if only the appropriate conditions are met" (Pavlov, 1949, p. 188), L.S. Vygotsky and A.S. Makarenko also wrote about the same. About this is the idea of "occupational therapy" in its broadest sense and the ideas of the theory of ecological systems of U. Bronfenbrenner.

In the context of exclusive school education, which, as a rule, simply ignores the tasks of health protection and development, there are high chances of a negative impact of the educational process on human development, the risks of mathetogenesis and pediogenesis, schoolchildren among students and professional developments for teachers, it is difficult for an individual to become a student, to realize the existence of different strategies, forms and types of learning activity and learning relationships (Arpentyeva, 2017; Borovskaya et al., 2020; Panichkina et al., 2022; Podberezniy et al., 2023; Kassymova et al., 2023a; Kassymova et al., 2023b; Lyskova et al., 2023). Thanks to inclusive education models, people with and without disabilities can experience themselves and the world as different, in different situations (Kendall, 2017), and understand their own and other people's capabilities and limitations. Inclusion allows you to minimize (prevent), overcome (correct and develop) or rethink (positive behavior) many problems of an individual, group, and society, combine individualization and socialization, adaptation and creativity (Boiko et al., 2020; Maltseva, 2018; Podberezniy, Arpentieva, Panichkina, 2023; Podberezniy et al., 2023; Posypanova et al.; 2021; Scott et al., 2007; Stepanova et al., 2021).

At the same time, it is important to note that full, "total", inclusion is not applicable in all situations. It is necessary to involve other forms of education and upbringing in order to ensure the development of all children, adolescents, youths, and young people without exception, other researchers of the problems of the ecological potential of inclusion also speak about it (Volkova, Henschel, 2020; Ivanov 2021; Kozlova, Mikheev, 2020; Pavlov, 1949 and others). Thus, one of the leading principles of correction, including in special and inclusive education, assumes that educational progress arises under the condition of focusing on the potential capabilities of individuals, and not on their limitations, "diseases", on development, and not on compensation, on overcoming and creativity, rather than just adaptation and "sustainability". Scholars believe that inclusion makes people feel valued/important, successful/powerful, and included/needed (Horn, 2018; Mitchell, 2011; Lyskova et al., 2023; Shulekina and Novikova, 2020). Therefore, in particular, I. A. Erina and colleagues (20002) introduce the concept of "reverse inclusion": normotypical children, adolescents, and young men come to certain lessons/classes in correctional classes, where they study and are brought up together with students with disabilities. In general, the practice of joint education and upbringing of people with different characteristics has existed for a long time and, in addition to shortcomings and difficulties, has a number of advantages (Arpentyeva, 2017; Borovskaya et al., 2020; 2022; Kassymova G. et al., 2023a; Kassymova et al., 2023b). Therefore, building an inclusive environment should start at the earliest possible stage of life or education (Ivanov, 2021; Lyskova et al., 2023; Posypanova et al.; 2021; Stepanova et al., 2021).

An environmentally friendly educational environment is characterized by a wide range of focuses: focus on the learning context; integrity and ease; person-centered approach; orientation to the application of knowledge in real life; "learning throughout life"; development of critical thinking and non-standard problem solving; team interaction in solving educational problems; research skills; active use of digital resources and wide access to multimodal visual materials. In the framework of this study, we will dwell in more detail on the last two aspects, namely, the "redundancy" of digital and multimedia tools in teaching to influence all channels of perception in order to select the most appropriate learning style (Korochistova, Nagel, 2022). An ecological approach to understanding health saving in inclusive educational relations is an important line of modern research (Arpentyeva, 2017; Borovskaya et al., 2020; Panichkina et al., 2022; Podberezniy et al., 2022; Kassymova et al., 2023a; Kassymova et al., 2023b; Lyskova et al., 2023; Takahashi 2004).

## **Conclusions**

The ecology of education is an integrative system of knowledge, skills and abilities, value orientations of a teacher, and special measures and activities that help the teaching staff of an educational institution to make the educational process healthy, to develop a strategy for ensuring a healthy lifestyle

for all participants in the educational process, healthy learning and upbringing in the classroom and in the course of community service. The ecology of education covers the mode of the educational process in the course of active interaction with other children and teachers. It also includes various areas and methods of bio- and psychodiagnostics and correction. At present, the ecological approach is aimed at the formation and development of ecological consciousness, including the ecological responsibility of a person to society. Ecology has gone beyond the boundaries defined by E. Haeckel (1866), now social pedagogy and educational psychology are areas of widespread use of the "ecological approach". The ecological approach suggests taking into account the "network of opportunities", "sets of efficiencies" and "life worlds" as the main elements of personality development in education. Opportunity networks characterize the opportunities that provide the subject with the possession of new knowledge and its application. Efficiency sets represent the skills and abilities necessary for the effective and productive use of knowledge. The ecological approach provides for a revision of the usual methods of teaching and education from the standpoint of the ecology of man and society, and the development of new educational technologies that are more natural and culturally appropriate. Over time, the goal of environmental education becomes not so much the formation of individual environmental competencies, but the development of environmental culture and an ecological approach to understanding a person and his life, including education. Education, as a subsystem of an evolving society, changes in parallel with this society, the external and internal conditions for the formation of a person change, while one of the highest social goals is precisely education that corresponds to an educational society.

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