

## Article

# Sustainability of Inclusive Education in Schools and Higher Education: Teachers and Students with Special Educational Needs

Anna Shutaleva <sup>1,2</sup>, Nikita Martyushev <sup>3,\*</sup>, Zhanna Nikonova <sup>4</sup>, Irina Savchenko <sup>5,6</sup>, Vladislav Kukartsev <sup>7,8,9</sup>, Vadim Tynchenko <sup>9,10,11</sup> and Yadviga Tynchenko <sup>12,13</sup>

<sup>1</sup> Department of Philosophy, Ural Federal University Named after the First President of Russia B.N. Yeltsin, 620002 Ekaterinburg, Russia

<sup>2</sup> Department of Social and Humanitarian Disciplines, Ural State Law University, 620137 Ekaterinburg, Russia

<sup>3</sup> Department of Materials Science, Tomsk Polytechnic University, 634050 Tomsk, Russia

<sup>4</sup> Department of Theory and Practice of the German Language, Linguistics University of Nizhny Novgorod, 603155 Nizhny Novgorod, Russia

<sup>5</sup> Department of Philosophy and Social Sciences, Moscow City University, 129226 Moscow, Russia

<sup>6</sup> International Laboratory "Research Methods in Social Science", Linguistics University of Nizhny Novgorod, 603155 Nizhny Novgorod, Russia

<sup>7</sup> Department of Informatics, Institute of Space and Information Technologies, Siberian Federal University, 660041 Krasnoyarsk, Russia

<sup>8</sup> Department of Information Economic Systems, Institute of Engineering and Economics, Reshetnev Siberian State University of Science and Technology, 660037 Krasnoyarsk, Russia

<sup>9</sup> Digital Material Science: New Materials and Technologies, Bauman Moscow State Technical University, 105005 Moscow, Russia

<sup>10</sup> Department of Technological Machines and Equipment of Oil and Gas Complex, School of Petroleum and Natural Gas Engineering, Siberian Federal University, 660041 Krasnoyarsk, Russia

<sup>11</sup> Information-Control Systems Department, Institute of Computer Science and Telecommunications, Reshetnev Siberian State University of Science and Technology, 660037 Krasnoyarsk, Russia

<sup>12</sup> Laboratory of Biofuel Compositions, Siberian Federal University, 660041 Krasnoyarsk, Russia

<sup>13</sup> Department of Systems Analysis and Operations Research, Reshetnev Siberian State University of Science and Technology, 660037 Krasnoyarsk, Russia

\* Correspondence: martjushev@tpu.ru

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**Abstract:** One of the significant factors in the sustainability of education is the development of inclusive education. An inclusive educational space implies openness and accessibility of education for students, regardless of their educational needs. Inclusive education also means a partnership between students and teachers. A teacher is a living person whose socio-emotional skills and professional abilities are the basis for the sustainability of education and student development. This article is devoted to studying teachers' competence and psychological readiness at schools and higher educational institutions to work with students with special educational needs. This article includes the results of a sociological study conducted in September 2022 and is devoted to the readiness of schoolteachers and university professors for inclusive education ( $N = 125$ ). The general statistical calculation was carried out based on information processing using the Vortex program version 10.0. Universities and schools are located in large administrative centers of Russian regions with a population of about a million. The relevance of this study is due to the relationship of sustainability with the ideas of inclusive education, manifested in its goal of achieving students' educational levels established by the state and the humanistic concept of equality of opportunity in the process of professional implementation and self-determination of the individual.

**Keywords:** sustainability; education; inclusion; humanization; teacher

## 1. Introduction

The current stage of social development is characterized by the search for sustainable models of the social and economic development of humankind. The concept of sustainability is one of the keys to solving modern challenges to humanity that are associated with contradictions in social development. During the spread of the COVID-19 pandemic, the existing contradictions in social development led to the search for effective models for organizing social models and exacerbated questions about what a person should be like in the 21st century. In the dynamic development of modern society, education helps to preserve and convey the experience of culture and to present it in the present in relevant forms. Education preserves cultural tradition and links the past, present, and future in a diachronic perspective. The sustainability of cultural tradition is an important condition for the sustainability of society as a whole.

The model of a successful graduate of educational institutions is based on the idea of a highly qualified professional who can adequately overcome difficulties and cope with the challenges of the time [1–3]. At the same time, a graduate of educational institutions must adapt to the diversity of the world, be sociable, and be empathetic. Education should contribute to the development of mobility and divergent thinking in students, the ability to solve ordinary problems unusually, focus on finding several options for solving problems, and the ability to change strategies in the light of changing circumstances. In this regard, in the international scientific community, questions are being discussed about the ability of the traditional education system to cope with this task and what the transformations in the education system should be that would allow the education system to meet the civilizational challenges of our time [4–6]. Today, the world has entered the era of total informatization and education includes various digital technologies that make education more sustainable [7–9].

The development of society requires the institution of education to not only transfer a certain set of knowledge to students. Education has a different goal; namely, education should contribute to personal development, disclosure, and development of the abilities of students. The achievement of the goal of modern education is possible subject to the implementation of the principles of inclusion as the acceptance of diversity and mutual understanding, which is reflected in the humanization and individualization of the educational process [10–12].

Humanistic principles of education are the principles of organizing people's lives and the educational process, which have ethical and legal grounds, enshrined in international documents and the legislation of individual countries. The humanistic principle of human value is reflected in the position of international law, according to which a person with special educational needs has a special personality and this individual is focused on active socialization and integration into society. The task of the state is to create conditions for the social development of people with special educational needs on an equal basis with other people in all spheres of life.

The education system should be a holistic learning process in the interests of the individual, society, and the state. This interrelation of the orientation of education is manifested in the achievement by students of educational levels established by the state and the idea of equality of opportunity in the process of professional realization and self-determination of the individual. The issue of providing affordable education for the population, regardless of gender, nation, age, and people's needs in special educational needs, should be solved by considering the opportunities provided by the modern educational environment. One of the most difficult categories of the population to learn are people with special educational needs.

Currently, there are several areas of discussion on the formation of accessible education for people with special educational needs:

1. Development and implementation in the educational system of regulatory, legal, organizational, and managerial aspects of the functioning of inclusive education;

2. Creation of methods for early detection of disorders in students as a theoretical basis for the development of technologies for equalizing opportunities for students with different educational opportunities;
3. Development of a program of diagnostic and correctional developmental work with students and adults in the conditions of diagnostic and correctional groups;
4. Development of methods for diagnosing the effectiveness of the educational process, taking into account the inclusion of people with special educational needs;
5. Formation of pedagogical competence of educators.

The modern educational environment has its specific content, but the functions of modern higher education are diverse, which gives rise to the problem of their coordination. The time of the COVID-19 pandemic is a period of intensification of social institutions to solve the problems of fully including people with special educational needs in a single communicative space [13–15]. This trend was particularly acute in the organization of the educational process. Inclusive education becomes a problem, provided that not all participants in the educational process have a holistic view of its goals, objectives, and results in the context of the current socio-economic situation. The participants in the educational process are students with normal health, students with disabilities and those with special educational needs, faculty, university administration, and other components of the education management and organization system. The creation of a full-scale inclusive social and educational environment can only be realized if all members of micro- and macro-societies are highly prepared for personal and professional changes in the interests of students.

The idea of inclusion was formed because of the recognition of the value of human diversity and differences between people [16–18]. The concept of inclusion includes a categorical apparatus in the educational process called the “social model” of inclusion. Inclusion is aimed at meeting the needs of everyone in education and contributes to the disclosure of potential, regardless of the possible limitations associated with physical health [19–21].

The main legal documents for the education of persons with special needs are the Convention on the Rights of Persons with Disabilities, adopted by the UN General Assembly, affirming the right of people with disabilities to education [22]; Declaración de Salamanca [23]; UNESCO: Educación 2030: Declaración de Incheon y Marco de Acción [24]; UNESCO: Education for All: Purpose and Context [25]; UNESCO: Conferencia Mundial De Educación Para Todos [26]; UNESCO: The Dakar Framework for Action [27].

The policy of inclusion reflects the need to change society and social institutions for sustainable development. Inclusion is consistent with the goals of sustainable development [28] as it ensures the involvement of any person in society, regardless of the person’s race, religion, culture, or health limitations. At the same time, inclusion implies a change in institutions that contributes to ensuring the equality of rights of each member of society and the realization of their needs in society.

Inclusive implies that the education system is based on the understanding that people with special educational needs can and should be involved in active activities in society [29–31]. This principle is of particular importance in connection with the discussion of the lives of people with disabilities. States are developing certain legislative strategies that are consistent with the Convention on the Rights of Persons with Disabilities adopted by the UN General Assembly [22]. This document lays the legal basis for the education of people with disabilities.

In the organization of educational practice, this principle means a certain modernization of the educational environment that should include the following components:

- Carrying out corrective and developmental work;
- Drawing up individual training plans;
- Definition of a mechanism for assessing the achievements of students with disabilities;

- The availability of the necessary organization of the environment and equipment in educational institutions that allow teaching people with disabilities.

The Salamanca Declaration [23] proclaimed the idea of inclusion, which was later perceived in an already established form and not as a reason for ongoing discussion in society. Such an attitude towards inclusion exists in Russia and many other countries that have joined the concept of inclusive education. This circumstance led to one-sidedness in the perception of this idea, which actualizes the need for discussion and theoretical understanding of this phenomenon, which determines the practice of organizing the educational process. The most important problem at the level of perception of the idea of inclusion is the lack of attention to the topic of the boundaries of inclusion. One of the significant aspects is the perception of inclusion being imposed from the outside by society and discursive practices [32,33].

At the same time, the question of the readiness of Russian society for the introduction of inclusive education remains open. Therefore, the idea that is significant for this study is the idea of inclusion, which is put forward by the participants in the educational process themselves since this is their choice and the manifestation of their rights and freedoms. Participants in the inclusive educational process are both students with special educational needs and those who teach them, that is, the teachers. Of particular importance for sustainability in the education system is the issue of preparing teachers to implement inclusive practices [34–36]. The practice of inclusion is changing the design of the educational environment and is being developed for particular scientific works. Preparing teachers to introduce inclusive practices into professional activities is the subject of research in many countries [37–40]. The choice of teachers and their professional and psychological readiness to work in the conditions of inclusive education should be considered when implementing projects that ensure the effective implementation of inclusive education in educational organizations [41–43].

The implementation of an inclusive form of education contributes to the formation of humane values among the younger generation, parents, and teachers [44,45]. Pedagogy, based on the principles of humanity, recognizes individuals' autonomy, self-worth, and rights. Recognition of the value of each child, regardless of their cognitive, academic, and other achievements, is possible only under the condition of educating a socially active person.

Inclusive practice requires relevant competencies and knowledge from specialists in the field of education. The focus on unlocking the potential of a socially unprotected student entails the development of teachers, universities, and society as a whole. Specialists with a high level of professionalism in such areas as special pedagogy and psychology are in demand. This situation leads to advanced training and retraining of specialists in educational institutions included in inclusive practice [46–48].

The challenge to the modern education system is that it must function not only as an educational institution but also as a social rehabilitation institution [49–51]. This provision is approved by legislation but is problematic for implementation in practice. The reason is that the successful implementation of the educational process is associated with the implementation of the principles of evolutionism and the phased nature of inclusive practice.

Implementing the ideas of inclusion in education is of fundamental importance for a society where the principle of equality and equal value of all its members is accepted. The implementation of the educational process in an online educational environment using online courses allows for educational inclusion [52–54]. The reason is that online education without discrimination provides conditions for the full realization of the rights of each member of society to education and socialization in the interests of themselves, the state, and society. Therefore, the use of online pedagogical tools is relevant; this was especially evident at such a difficult time for society in general and the educational system during the period of the COVID-19 pandemic [55–57].

Virtual communication accounts for a significant proportion of the contacts of a modern person. The use of online methods in teaching is the integration and adoption of digital

technologies in teaching and learning that contribute to a better understanding of the features of the modern global era [58–60]. All interactions between participants in educational activities within the electronic information and educational environment are divided into two main types: synchronous interactions between participants in educational activities and asynchronous interactions between participants in educational activities [61–63]. Synchronous interactions between participants in educational activities involve communication between a student and a teacher in real time, e.g., chat, audio conference, video conference, virtual whiteboard, and virtual classroom. Asynchronous interactions between participants in educational activities use communication between students and teachers with a time delay, e.g., e-mail, various file exchange systems, and web forums.

One of the platforms where methods of synchronous and asynchronous interaction can be implemented is online courses. Online courses have a particular potential [64–66] as they ensure the interaction of course participants with each other and with the teacher and the use of various communication channels for the functioning of active communities by establishing and expanding informal ties between participants in the educational process. The use of online courses in the interactive educational process requires solving several problems, such as the establishment of a special learning environment, the creation of special teaching methods and tools, the duration of education and the specifics of its content, and establishing the boundaries of the educational space and the circle of persons involved in the education of inclusion subjects.

However, today, one of the global issues that is relevant to inclusive education is the issue of overcoming the digital divide. Digital opportunities have a socially significant change [67–69]. Online education has become especially popular during the coronavirus pandemic. However, the digitalization of education is a phenomenon of social progress [70–72]. Still, it also creates new forms of inequality and digital barriers in society. Several studies show that the introduction of digital technologies does not guarantee to overcome the digital divide but generates new forms [73,74].

Internet access is a key component for the emergence of the term “digital divide”. The digital divide is directly related to the totality of socio-technological forms of inequality caused by the spread of information and communication technologies in society [75]. The concept of digital inequality combines the technical and technological and social aspects of digital technologies, that is, social factors, resources, opportunities, consequences, and relationships [76]. In this regard, models that consider resources, opportunities, results, barriers, and factors of the “digital divide” phenomenon are significant for this study [77–79]. L. Robinson and co-authors show that the digital divide manifests itself in the Web 2.0 Internet concept (income level, geographic location, education level, employment, age); however, it also takes on new forms in the Web 3.0 Internet concept (cybersecurity, algorithms, and big data) [78,79].

Students have different access to information and communication technologies and different digital skills and competencies [80–82]. Distance learning can lead to a conflict of goals and motivation for using digital technologies by students and their teachers. The motivation and attitude of the user to information and communication technologies is no less a significant component in the topic of digital inequality, as well as physical access to the Internet and its resources, digital skills, and literacy of participants in the educational process, as well as the practice of the actual use of information no-communicative technologies [83,84]. Research shows that e-equality or inequality depends not only on the availability of technology but also on relationships with families, collaboration between teachers, and online learning strategies [85,86].

The study of international and Russian experiences in organizing an inclusive educational space allows for identifying methodological aspects that help define inclusion:

- A synergistic aspect is the basis for understanding development as a self-actualization of the existing potentialities of the system, which creates conditions for its effective application in the study and organization of inclusive education;

- A systematic aspect is: (1) the basis of inclusive education as a system consisting of many interconnected elements hierarchically located at different levels of the socio-pedagogical organization; (2) the basis of continuity between the school, educational institution, and the formation of the life self-determination of the student;
- A rational pragmatic aspect is the basis for the effectiveness of the organization's activities, for which the consistency of values and goals is the foundation of the mission and the strategy of organizing the educational process;
- The socio-anthropological aspect is the basis for considering inclusive practice in the relationship of the individual and the activity in which the individuals can realize themselves;
- A student-centered aspect is the basis for the implementation of an individual approach to each child and adult with special educational needs, creating for them the conditions necessary to achieve educational results;
- The environmental aspect is the basis for the effective organization of the life of people with special educational needs through the consideration of the environment as an environment with which people interact and in which they realize themselves;
- The cultural historical aspect is the basis for the introduction of the student into the space of culture and society using methods for the formation of academic and life competencies;
- The axiological aspect is the basis for understanding the values of life that determine human existence.

Inclusive education is presented in the world educational space as an organization of the learning process, when students are included in the general education environment and study at their place of residence in general educational institutions.

The inclusion of people with special educational needs does not depend on their physical, mental, intellectual, cultural, ethnic, linguistic, and other characteristics. Educational organizations should provide the necessary special support to students, considering their abilities and special educational needs. In Russia, there are the following models for the implementation of inclusive education.

*Model 1: Full inclusion.*

Description: A full-time visit by people with special educational needs of a certain age group to an educational institution on their own or with accompaniment. The student is engaged in all classes together with peers. At the same time, the teacher offers tasks of various levels of complexity, additional games, and exercises.

The advantages include the adaptation and integration of people with special educational needs into society. However, it is necessary to have specially created conditions for the education and upbringing of students with disabilities and special educational needs and their communication with others.

Axiological meaning:

1. An opportunity is provided to develop friendly relations between people with special educational needs with their peers;
2. Education of responsiveness in people, such as high moral and moral qualities;
3. People with disabilities and special educational needs are spared from the adverse effects of separate education that isolates them from the outside world.

Disadvantages: ideally, there should be no disadvantages, since inclusive education improves the quality of life of people from socially vulnerable groups and improves society as a whole. However, the organization of the educational process assumes that the teacher works simultaneously in the lesson on several programs, which should consider the peculiarities of the educational opportunities of people without and with special educational needs and, most importantly, health restrictions. This circumstance may affect the quality of education. Another circumstance is the requirement for the level of

qualification and level of professionalism of the teacher, who must be proficient in the technology of differentiated learning and act as a defectology teacher.

*Model 2: partial inclusion.*

Description: students with special educational needs can choose from the following options:

1. Combination of individual learning at home with a visit to a general education institution and trained according to individual curricula; the number of hours and subjects must be agreed upon with parents (legal representatives);
2. Participation in clubs, counselling, extra-curricular activities, and other forms of education in which students with special educational needs are combined with normally developing students to participate in joint activities.

Advantages: It is an individual approach to learning and the creation of a varied developmental environment. Students with special educational needs learn together with their peers in the lessons and extracurricular activities that are available to them.

Axiological significance: This circumstance facilitates the adaptation of students with special educational needs, allowing them to make friends among their peers and to escape social isolation. Students with special educational needs can team up to work together on special correctional programs.

Disadvantages: the standard curriculum often does not allow some people with special needs to continue education from a certain stage and therefore needs to be improved and modernized.

*Model 3: episodic inclusion.*

Description: Within the framework of the interaction of educational and interdepartmental institutions, the implementation of a targeted organization of minimal social interaction between people with severe developmental disabilities and special educational needs and their peers includes joint exhibitions of students' works, holidays, competitions, and circles. Episodic integration is necessary for people with profound intellectual and cognitive impairments and behavioral disorders.

Advantages: episodic inclusion allows people with special educational needs to occasionally participate in activities in which peers take part for a certain time in holiday camps, specially organized excursions, hikes, holidays, and competitions.

Axiological significance: This circumstance facilitates the social adaptation of students with special educational needs, allowing them to make friends among their peers and to escape social isolation. Students with special educational needs can come together to work together, which can benefit the students' development.

Disadvantages include the unpreparedness of society to accept disabled people, the lack of development of an environment designed to include such people in the educational process, and the lack of professional educators to work in an inclusive environment.

We suggest that for inclusive education implementation, information and communication technologies act as a means to solve many problems that give rise to the very need for inclusive education. The value and organizational and content components of inclusive education can be implemented only if the inclusive practice is systematic and continuous, as well as if the content, techniques, and methods of teaching and upbringing correspond to the capabilities and needs of a particular person.

The purpose of the article is to study teachers' competence and psychological readiness at schools and higher educational institutions to work with students with special educational needs. A significant issue is which problems and challenges teachers consider to be the main ones in the transformation of the educational process in connection with the introduction of inclusive practices into it.

## 2. Materials and Methods

The study is based on the analysis of regulatory documents in the field of education, comparison, and generalization of existing approaches in world and domestic theory and practice on the problem of including the values of inclusion in the strategy of educational organizations.

We proceed from the concept of inclusion as a factor in the organization and development of the educational space, which ensures a consistent perception of reality and consistent group behavior in an educational organization.

In September 2022, an empirical study was conducted on the readiness of teachers at secondary schools and teachers of higher educational institutions ( $N = 125$ ) in the cities of Yekaterinburg, Tomsk, and Nizhny Novgorod for inclusive education:

- Forty secondary school teachers in Yekaterinburg;
- Ten teachers from the Ural Federal University (named after the first President of Russia, B.N. Yeltsin);
- Twenty Tomsk secondary school teachers;
- Fifteen teachers from Tomsk Polytechnic University;
- Twenty-five secondary school teachers in Nizhny Novgorod;
- Fifteen teachers from the Linguistics University of Nizhny Novgorod.

**Research Tools:** An online survey was created in Google Forms by posting a questionnaire. The electronic questionnaire consisted of open and closed questions, including a control question. The screening questions were based on gender and age. Both men and women aged 25 to 60 took part in the interviews. In this study, we focused on these screening questions; however, we note that it is not the age and gender of the respondents that are important to us as a combination of bio-physiological qualities. Screening questions about gender and age refer to a complex of psychosociological and sociological characteristics of a person that are closely related to screening questions and “hidden” behind them. Different age groups differ in social experience, value orientations and ideals, level of education, and culture. Different age groups have different activities and different degrees of social activity.

The general statistical calculation was carried out based on information processing using the Vortex program version 10.0. The construction and calculation of linear distribution tables in the form of two-dimensional and multi-dimensional tables were carried out for each question.

This study includes questions to identify the psychological readiness of school and university teachers for inclusive education.

The structure of questions for identifying psychological readiness includes questions aimed at identifying the following factors:

- Emotional acceptance or rejection of students with various types of developmental disorders;
- Willingness of teachers to include students with different types of disabilities and special educational needs in the activities of the lesson;
- Satisfaction of teachers with their teaching activities;
- Assessment of models of inclusive education (Model 1: full inclusion; Model 2: episodic inclusion; Model 3: partial inclusion) in terms of the effectiveness of their implementation and existing opportunities for teachers in implementation.

## 3. Results

In general, the results of the survey showed that schoolteachers and university teachers are characterized by an understanding of the importance of inclusive education for the successful socialization of people with special educational needs, especially those with disabilities and special educational needs. To the question “Do you consider the

introduction of inclusive education in educational institutions significant?" 100% of respondents answered "yes".

Most teachers have an idea of the concept of inclusive education. To the question "Have you independently studied articles or educational literature on the introduction of inclusive education in the educational process?" 85% of respondents answered that "yes, they have," and 15% of respondents replied that "they are familiar with this concept from discussions with colleagues." To the question "Whether teachers have been trained in advanced training courses related to the introduction of inclusive education in the learning process," 80% of respondents replied that they "have been trained," 15% of respondents "are ready to study in the future," and 5% of respondents replied that they "will not be trained."

The block of questions devoted to the analysis of inclusive learning models included open and closed questions. The questionnaire questions were formulated in such a way to allow teachers to see the problematic aspects of the implementation of professional activity in an inclusive environment. Respondents noted such an aspect in solving this issue as the peculiarities of the educational needs of students.

Respondents believe that the results of an expert assessment of the student's health and methods of their education, as well as the choice of an inclusive learning model, should be coordinated. This requirement was chosen as the main one when answering the question "What are the conditions for the inclusion of a student with special educational needs, namely health limitations, in the educational process?" The respondents' choice of inclusion model depended on the following factors:

1. The choice of a learning model depends on the severity of a person's health (100% of respondents chose this answer);
2. Some people with health restrictions should study in special educational institutions as they have the necessary environment and learning tools (90% of respondents chose this answer);
3. Individual homeschooling is the best option for people with disabilities and special educational needs (40% of respondents chose this answer);
4. Every child, regardless of educational needs and health restrictions (but not in case of refusal of this type of training by specialists and doctors), should study at an educational institution where the inclusive practice is implemented (60% of respondents chose this answer).

Regarding the question about the psychological readiness of teachers to be included in the inclusive process, the respondents did not give an unequivocally affirmative answer. A total of 5% of respondents gave an affirmative answer, noting that they had had the practice of inclusive education for people with special educational needs. A total of 70% of respondents noted that they are not ready psychologically as they have never encountered people with special educational needs in schools. A total of 25% of respondents believe that they will not encounter such practices in their professional activities, so the question of psychological readiness is not relevant. Moreover, 75% of respondents noted the difficulties and the need for a transitional stage in the management of students with special educational needs in an educational institution. The reason was noted as follows: "without conditions that allow adapting to the educational process, the student will not be able to immediately withstand the entire load that exists in educational institutions." The following possibilities were proposed to address the issue of adaptation: (1) the presence of persons with disabilities and special educational needs in one to two lessons for the first time, which will allow the student and the teacher to adapt by choosing teaching methods; (2) the introduction of a mandatory discipline of the basics of secular ethics in educational institutions for visitors from foreign countries; (3) the introduction of environmental education lessons with students going to parks or greenhouses near schools, which will allow to establish relations between students and create a favorable climate within the group of students.

The low percentage of teachers who answered that they are ready for inclusive education can be explained by the weak degree of readiness of both the teachers themselves and the environmental conditions of the educational institution.

Teachers at schools and universities noted that there are difficulties in building an individual student's work outside the inclusion of inclusive learning practices. The teachers noted that the learning process should:

- "Follow the developed general program, while focusing on the transfer of knowledge," noted by 100% of respondents;
- "Take into account the interests and abilities, as well as the student's individual characteristics," noted by only 30% of respondents.

Teachers believe that educational institutions are not fully prepared to create the necessary comfortable environment for a child with special educational needs, mainly with health restrictions. There is a practice of individual home education for school students with disabilities and special educational needs.

Teachers expressed several difficulties when working with students with disabilities and special educational needs; respondents noted the lack of technical equipment in classrooms, methodological difficulties, and psychological difficulties. The teachers noted that the introduction of such specialists as speech pathologists, speech therapists, and psychologists into educational institutions will allow for overcoming painful points for people with special educational needs in the process of inclusive education. However, the teachers noted not only the lack of these specialists (except for a psychologist in several educational institutions) but also the lack of rates for these specialists in an educational institution.

Respondents noted that educational institutions have successfully withstood periods of online learning caused by the COVID-19 pandemic. They have opportunities for distance learning. In this regard, the problem of methods of inclusive education in online learning is posed. In connection with the period of teaching school students and students online during the COVID-19 pandemic, the question was raised about the satisfaction of teachers with their pedagogical results after this period. Most teachers (85%) noted that they were looking for new methods that allowed them to teach and monitor students' results effectively; however, fatigue from being online was present. A total of 15% of respondents do not believe that online classes were a fully-fledged substitute for offline learning.

One of the important problems that teachers wrote about as an answer to the question "What are the main factors that hinder inclusive education" is the unavailability of school students and parent groups to the conditions of inclusive education. This point was also noted by 90% of respondents.

#### 4. Discussion

The results of the study show that school and university teachers demonstrate advanced knowledge about the problems of inclusion and understand the importance of its implementation in the educational process. However, they point out the serious problems they face as participants in the educational process responsible for the education of students.

The survey showed that a significant topic for the development of inclusive education is overcoming the barriers that exist today. Barriers can be divided into the following three groups:

1. Barriers related to the participants in the inclusive educational process, that is, their attitude, lack/sufficiency of knowledge, fear, prejudice, specialization, competition, lack/presence of experience in perceiving differences, stereotyping/flexibility of thinking;

2. Barriers related to money and material resources, i.e., lack/sufficiency of funds and equipment, high/low wages, uneven/even distribution of resources, developed/underdeveloped infrastructure;
3. Barriers related to knowledge and information, that is, the presence/absence of access to knowledge and information and the absence/presence of collective experience in discussing and solving problems.

These barriers are interrelated. For example, a lack of skills is one of the obstacles teachers face when considering their activities, which include the education of students with special educational needs and disabilities. The solution to this issue is the practice of teacher involvement through special seminars, advanced training, and professional re-training. However, another barrier arises, i.e., time. Teachers are involved in a complex process of teaching and research. At the same time, teachers are people and they need to maintain a balance between work and personal life. In this context, the question arises of finding time to master, develop, and implement inclusive education tools. We believe that the creation of a mechanism for rewarding teachers and recognizing their efforts is an excellent way out of this difficult situation.

The inadequacy of the infrastructure for teaching students with special educational needs and disabilities is a barrier that can be overcome by attracting budgetary and non-budgetary funds to create the infrastructure of the required level. The solution could be a collaborative strategy as an institutional strategy that promotes the implementation of key skills and the implementation of methodologies by teachers in the implementation of inclusive education.

Compliance with the infrastructure for teaching students with special educational needs and disabilities is necessary to create a constructive and psychologically healthy learning environment in which both the student and the teacher will be comfortable. One of the barriers that teachers pointed out is the attitude towards students with special educational needs and disabilities from other students and even their parents. Educators themselves may feel overwhelmed by the very process of interacting with new tools. The solution is the formation of a common culture of students and teachers, maintaining a positive attitude. The implementation of professional activities in teachers is possible only with their commitment to general humanistic principles. Inclusive practice requires the knowledge and ability to apply special techniques to work with students with special educational needs.

Inclusive educational practice includes students with special educational needs and disabilities and their parents, normally developing students and members of their families, teachers, and other specialists in the educational space, administration, additional education structures, and other participants in the educational process. The ethical components of patience and tact as qualities of a teacher determine the possibility of establishing strong contact with students and their parents, which will allow for achieving positive results in the educational process. This requirement necessitates the creation of an inclusive space in which the interests of all subjects of the educational process and forms of organization of their relations can be realized [87–89]. Inclusiveness is becoming an important component of pedagogical ethics and the basis of humanistic education.

The key role in the process of the pedagogical interaction belongs to the teacher. The personal potential, professional knowledge, skills, and beliefs of the teacher determine the effectiveness, productivity of communication, and joint activities of the subjects of the educational process. The inclusive nature of the online educational process determines the types of interaction between the subjects involved in the joint activities; these types are dialogue, cooperation, and guardianship.

The online interaction of the participants in the educational process implies the equality of the positions of the subjects of communication. The structure of online interaction includes cognitive components and emotional components. Dialogue is characterized by a high level of empathy, a sense of partner, the absence of stereotypes in the perception of other people, and a flexibility of thinking. Online interaction involves the development of

the participants of the educational process, as contacts, goodwill, mobility of actions, patience, trust, and social activity achieve the opportunity to be realized in cooperation. The inclusion of a person with special educational needs in the process of the joint determination of the goals of the activity, planning, and distribution of forces and means, based on the capabilities of each, will allow a single communicative space to be realized. Care is realized in guardianship, which requires emotional stability, a high level of empathy, extraversion, social activity, and the ability to come to the rescue of the subjects of interaction.

The value foundations of inclusive education are related to general humanistic issues [12] that are the starting point of the philosophy of education and the methodology of pedagogy. Inclusion is possible after recognizing the existence of differences between people. A condition for an inclusive educational process is the respect for the differences between people. Therefore, the principle of a respectful attitude towards the participants in the educational process is a value basis and a condition for the implementation of an online inclusive model of education and overcoming social exclusion.

The stability of the educational process is based on the social and moral motives of the individual's behavior that contribute to the interaction of people. The interactions between a teacher and a student and between peers require an adequate understanding of what is happening in the inner world of another person; hence, empathy is the basis of communication.

International policy in the education of people with special educational needs and disabilities has gone from segregation to expanding access to education, widening participation, integration, mainstream, and inclusion, because of which, first of all, the organizational design of the socio-educational sphere has changed [13]. At least two factors influence the formation and development of the online design of the modern educational environment. The first factor is the focus on the implementation of humanistic values and priorities. The second factor is the changes in educational policy.

The fundamental priority and principle of the online design of the modern educational environment is the recognition of the priority of the social adaptation of the people at each age stage. This idea contributes to adopting the philosophy of inclusion by participants in the educational process and developing communicative and practical competencies of students and teachers.

The creation and development of an online socio-cultural infrastructure in an educational institution is possible in conjunction with the institutes of employment, health, culture, and recreation. This task of the higher school involves interaction with the state rehabilitation service. The creation of special conditions in coordination with the medical, psychological, and pedagogical environment in the educational institution is most conducive to the development of professional knowledge and skills of the individual. Special conditions are adapted territories and premises, special technical equipment for the educational process, and special equipment for classrooms, laboratories, and libraries.

Online education has become a basic element of the social protection of disabled people and people with special educational needs by increasing their competitiveness in the educational process and the labor market. At the initial stages of social and educational adaptation, a child with special educational needs a lot of attention from specialists. However, this situation changes when the students realize that they are obtaining something and they seek to retain and expand the zone of their self-efficacy. Students with special educational needs are motivated to compensate for their "imperfections" through the development of personal abilities. These are qualities such as perseverance, a positive attitude to life, the desire to improve their standard of living, and an adherence to high standards. The presence of students and adolescents with special educational needs in the educational process starting from pre-school educational institutions and then at the secondary and higher levels of education will be a positive, not a negative, example for healthy students. This situation will push both to high standards of living.

In modern universities, it is possible to expand access to education for socially unprotected groups of the population through online education and by creating a comfortable offline environment. The introduction of quotas increases the number of students with special talents and needs. This practice has been called positive discrimination or equal opportunity policy. The equal opportunity policy increases the likelihood that students with special educational needs will achieve academic success and graduate from university, but it will also develop their ability to overcome difficulties and reveal their motivation and potential academic and civic activity at the university. Thus, the state university contributes to the formation of the society it serves.

## 5. Conclusions

The modern educational environment is aimed at implementing the principles of inclusion. However, research shows that not all representatives of Russian teachers are ready to include disabled students in schools and universities. This orientation leads to the need to implement the following components in educational organizations:

1. Introduction of the philosophy of inclusive education into the system of basic and professional values of the pedagogical process;
2. Definition of the functions of inclusive activity, its scope, and levels of implementation;
3. Determination of the optimal structure of the educational process to socialize students with special educational needs;
4. Integration of educational, correctional, creative, and health-improving functions of education and resource provision;
5. Providing students with special educational needs with support and psychological support of specialists and psychological, medical, and pedagogical council;
6. Provision of conditions for the organization of the educational process of students with special educational needs such as adapted physical space, adapted curricula, individually oriented general education and special (correctional) programs, and organization of classes with specialists of correctional and pedagogical profiles.

The central figure of the inclusive educational process is the person with special needs and capabilities. Inclusion in Russian educational institutions is rather a unique project than a conveyor practice. The development of inclusive education presupposes a qualitative and systematic change in the design of the Russian education system as a whole. At the same time, the changes should consider the educational needs of all participants in the educational process, namely teachers, specialists, healthy students, and people with special educational needs. An inclusive educational space implies openness and accessibility, a partnership between students and teachers. The more parents, teachers, and specialists of various qualifications who engage in communication, the more likely it is that the process of integrating a person with special educational needs into an educational institution will be successful.

The practice of inclusion is spreading in the educational sphere, but some problems need to be solved to create a unified communicative space of socialization as a whole. Educational institutions are faced with the need to transform buildings and premises, with the creation of conditions that allow for individual rehabilitation programs for the period of education of students with special educational needs, with the creation of training programs that consider the psychophysiological characteristics of students with special educational needs, and with pedagogical correction of the educational process and other factors. Increasing the comfort level of the educational environment will allow students with special educational needs to be included in the social space of their peers, which will facilitate the social integration of students. The use of online courses for teaching students in schools can be an addition to the educational process, which can be implemented in different models of inclusive education.

In the system of professional education, the possibility of professional development and retraining of specialists already included in inclusive practice should be

implemented. A system of rules and instructions should be adopted to regulate the mechanism for implementing inclusive learning in practice. The education of students with special educational needs should be carried out by state educational standards based on educational programs. The introduction of “facilitated” programs is unacceptable since the education of students with special educational needs should lead to their competitiveness in the labor market and increased access to employment areas.

Online learning technologies create several opportunities for the learning and socialization of subjects of inclusive education. The importance and effectiveness of using online technologies in education are confirmed by the fact that during the COVID-19 pandemic, educational systems demonstrated stability and viability by switching to online education; therefore, questions about the conditions, mechanisms, and models of integrating online courses into an inclusive educational process are relevant. The solution to these issues will contribute to the improvement of the subject content of pedagogical disciplines.

The development of modern education relates to the introduction and implementation of educational programs in an inclusive form. The search for innovative models, new forms, and ways of organizing training is an important component of the strategy for improving the social security system of the population. The practice of inclusive education is present in some Russian schools in fragments. However, the purpose of modern education is to create a correctional and developmental environment in an inclusive educational space. For this purpose, it is necessary to use all the resources and capabilities of a general education institution for the development of students with special educational opportunities and normally developing peers. Some part of Russian society has already adopted the inclusive practice and is implementing it. This fact indicates that, on the one hand, Russian society is not yet ready to implement inclusive education everywhere, on the other hand, the correctional education system is on the verge of inevitable changes.

## 6. Limitations

This study is based on the analysis of the opinions of secondary school teachers and teachers of higher educational institutions in such Russian cities as Yekaterinburg, Tomsk, and Nizhny Novgorod. The choice of these urban centers is because these cities are developed industrial and cultural centers of the regions. In these regions, the introduction of innovations related to inclusive education is a real process that includes schools and higher education institutions. This circumstance makes it necessary to further study the readiness of schoolteachers and university teachers, including data and their analysis from the federal center of the country and rural areas.

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