

# Educational Environment as a Prerequisite for Providing a Quality Inclusive Education

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**Abstract** – This article provides research on the problems connected to the formation and development of an inclusive educational environment in a higher educational institution. The authors of this article justified the substance and structure of an inclusive educational environment in higher education via a combination of multiple components. Those include culture and value systems, legal and regulatory frameworks, professional cadres on the spot, pedagogical methodology, as well as institutional and organisational components. The combination of the mentioned above components will be favourable to make people with disabilities to develop in a university environment.

**Keywords** – inclusion, educational environment, inclusive higher education, students with disabilities, students with disabilities.

## I. INTRODUCTION

The modern system of higher education is a socio-cultural environment that solves a lot of problems by providing opportunities to develop necessary skills, form internal integrity, stable mental system, vitality and resilience to humanise everyone's living conditions [1]. The solution to this problem is particularly relevant for people with disabilities.

Inclusive education is formed as a new strategic direction of modern education in Russia, which in the era of information society, is the road to the future, "[...] where everyone can learn, always, all life, for themselves and for the society, creating a new quality of life for the people on the planet on the basis of knowledge" [2]. The most important area and a quality criterion to establish an inclusive educational system is to form and develop an environment which would ensure to fulfill the essential needs of any forming individual with disabilities.

To achieve this, it is necessary to transform the prevailing educational environment of universities so that all students, regardless of their abilities and needs, have equal opportunities for scientific, social education, and personal development. In this context, the educational environment of any university should be inclusive [3, 4].

The inclusive educational environment of the university is a specially structured space of an organization of higher education, in which the participants interact with each other and with the environment in order to fully disclose the individual qualities of students, regardless of their individual health opportunities and psychophysical characteristics. In short, it is a microclimate of the educational organization in which all students feel equally "comfortable" [5, 6, 7].

The urgent problem of establishing an inclusive educational environment in Russian universities formed the objectives for this study. It is crucial to substantiate the conceptual model, and the content of an inclusive educational environment of a university in order to identify the problems and prospects of its development.

## II. MATERIALS AND METHODS

The research on effectively functioning inclusive educational environment as a complex multidimensional phenomenon requires us to use a systematic approach. This systematic approach allows us to consider many elements of different nature that are substantial for an inclusive educational environment, and those that have the greatest impact, and ways to handle them. Thus, the inclusive higher education system can be represented as an organized set of interrelated elements that interact with themselves. they are causally linked and are united by their purpose [8].

The methodological basis of the research is the scientific works of domestic and foreign scientists devoted to the

issues of inclusive education, the processes of formation and implementation of an inclusive educational environment, monographs, materials of scientific conferences, thematic publications in the periodical press, resource kits, and encyclopedic materials; Internet resources; current legislative and regulatory documents of the Russian Federation.

### III. RESULTS AND DISCUSSION

The conceptual model of an inclusive educational environment of a university was established on the system approach (see Fig. 1).

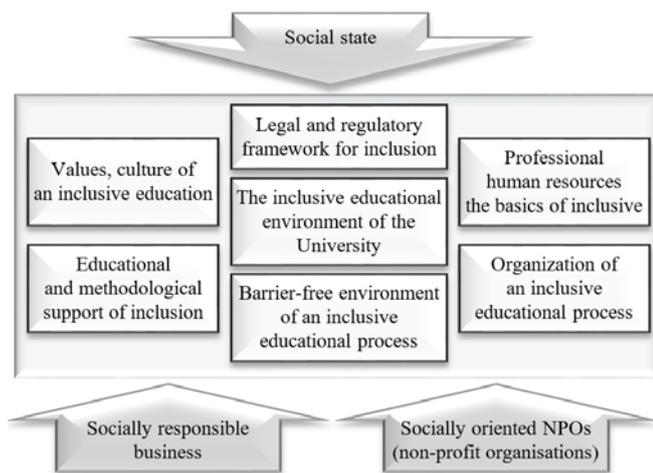


Fig. 1. The conceptual model of an inclusive educational environment of a university [8]

As it can be seen in Fig. 1, the inclusive educational environment of a university is a combination of multiple components. Those include culture and value systems, legal and regulatory frameworks, professional cadres on the spot, pedagogical methodology, as well as institutional and organisational components which in combination are the most conducive to the personal development of each student.

The cultural and value component of an inclusive educational environment consists of: shared values and goals of an inclusive educational environment by all participants of the educational process, a consistently positive attitude to the development of inclusive education at the educational institution, as well as a style of behavior corresponding to an inclusive philosophy.

The priority values of an inclusive educational system are the humanity, prioritised value of the human person, regardless of their characteristics, abilities, and achievements, understanding the need to interact with all people on a parity basis, the adoption of social peace in all its diversity. These values should be shared by all participants of the educational process: administration, research and teaching staff of the university, students, their parents and friends [1, 5].

The above-mentioned values in the ability and willingness to help students with disabilities not only to effectively learn the educational program, but also to feel comfortable among peers, to take an active part in the life of the team, and university events [8, 19, 20]. But all the elements of the system do not always function coherently.

When a tolerant psychological environment in an inclusive vocational educational institution is forming, it is necessary to analyze the indicators and causes of intolerance, as well as the resources for the formation of tolerance, which are specific for different subjects of education: students with disabilities and their parents, students without health restrictions and their families, university lecturers and other staff, administration, structures of additional education. Therefore, activities of an educational organization should be focused on ensuring mutual understanding between all participants of the educational process. Thus, it is necessary to establish a tolerant educational space in an educational organization, which means the unity of all subjects of the educational, upbringing activities, forms of organizing their interactions and relationships built on principles of "pedagogy of tolerance" and is a leading component of pedagogical ethics and the basis of humanistic education [6].

The main subject of pedagogical interactive process is a teacher, whose beliefs, personal potential, professional knowledge, and skills depend on the productivity of communication and joint activities [7].

Indicators of professional education teachers' intolerance can be [8]:

- the reluctance to explore unfamiliar methods of work;
- ignorance towards the special needs of students with disabilities;
- irritability if necessary, spend more time and effort explaining the material;
- fear and confusion in front of an unfamiliar category of students;
- insecurities about personal incompetence.

Obviously, one of the reasons for such manifestations of intolerant actions is most likely the person's ignorance towards the specifics of an inclusive vocational education and, as a consequence, negative feelings about it.

As practice shows, an effective direction of psychological and pedagogical support is the educational one, including round-table discussions and dialogues on the exchange of experience, and methodological seminars [8]. The understanding of a non-unique nature of personal problems of pedagogical personnel has a great impact on the development of pedagogical tolerance within the teaching staff. This is can be done using the available professional pedagogical technologies not only to overcome their ignorance towards the minority group but also become sensitive, attentive and friendly to the students with disabilities. Therefore, the understanding of tolerance must be supplemented by such a feature as "[...] overcoming indifference, indifference to "unknown", not reducing it to the need to overcome a sense of obvious rejection" [8].

According to the researchers, the key instrumental qualities of the teacher in the implementation of the model of inclusive education are such qualities as tact (the ability of the teacher to foresee all the objective consequences of actions and their subjective perception by students, colleagues, parents), and patience (the ability to listen, given the opportunity to speak out on the problem, remove negative emotions and direct the conversation in a

constructive direction to get full information and cause motivation to work together) [8]. These personal qualities are indispensable when working in an inclusive educational environment, as the specific behaviour of students with disabilities could be caused by their psychophysical condition.

The next subject of interaction are the students without health restrictions. As the researchers note, "healthy learners can show intolerance in refusing to interact with students with disabilities in not providing them help, in ridicule and ineffective communication" [8]. Fortunately, these are non-mass phenomena for inclusive education, as young people have the resources of natural tolerance, and psychological and pedagogical support here should be based on technologies that develop the skills to communicate effectively on the basis of cooperative activities.

Students with disabilities as a subject of interaction in the educational environment also do not always show tolerance to their peers. As noted [8], this can be manifested in hostility, refusal of equal subject-to-subject interaction, consumer attitude to others, and learned helplessness. As well as the students with no health restrictions, students with disabilities have a resource of natural tolerance, so the above cases are not mass-scale. Therefore, using technologies aimed at the development of cooperation and effective communication, we can reduce the intensity of intolerant interactions and create a tolerant in are identified. The intolerance of the administration of an educational institution is manifested in the reluctance to engage in the organization of environmentally and psychologically accessible educational environment, and in ignoring students with special educational needs. Researchers mention that the reason for intolerance within administrative staff of a university is a lack of knowledge about the following [8]:

- social and legal protection of institutions implementing programs of inclusive professional education;
- opportunities for teachers' professional development;
- a possibility to extend the staff members using external tutors and social workers.

It is possible to form a tolerant attitude through the awareness of social responsibility for the process and results of the educational institution, which can contribute to the scientific and methodological preparation for institution's administration to establish an inclusive educational environment [9].

The basis of tolerance, as it has been repeatedly mentioned, is a positive perception of differences. But when interacting with people who are different from the majority (in particular, with people with disabilities), some experience feelings of awkwardness, fear, etc., which prevent tolerant interaction.

The regulatory component of an inclusive educational environment includes a set of internal documents, rules, and university's regulations concerning the supervision of the process of receiving student's application, training, adaptation of persons with special needs and disabilities. It is very important that these documents not only copy the provisions of external to the university's internal regulations,

but also creatively "embroider" and concretize them. Thus, in universities, characterized by high quality inclusive educational environment, the charter of the institution may not contain the term "inclusive education"; however, intra-university regulations on the requirements for educational and methodical, architectural, technological, information, and other support of the educational process, as a rule, contain specific requirements for the creation of comfortable conditions for people with disabilities. A contract with parents or legal representatives of a student should be considered a primary local normative document, where the rights and obligations of all parties to the educational process are fixed. The agreement should provide legal opportunities to change the educational trajectory in accordance with the capabilities and abilities of the student, including those that are formed in the process of higher education [10].

It is hardly possible to overestimate the importance of the professional and personnel component of an inclusive educational environment in a university. A university, which aims to develop inclusive education, should provide a qualitatively new level of professional work of its personnel [11, 12]. Critical personal and professional competencies of the administration and lecturers at the university in the aspect of inclusive education are: ability to incorporate the goals and values of inclusive education into practice; knowledge of the legal framework to provide a barrier-free educational environment for persons with disabilities; knowledge of specific methods of teaching students with special educational opportunities and needs of different nosological groups; opportunity to develop and apply educational methods and technologies of training for students and persons with disabilities in scientific and pedagogical practice. Professional retraining/advanced training of teachers and administrative and managerial personnel of the university in the field of inclusive education contributes to the mastery of these competencies.

The organizational component of establishing an inclusive educational environment requires an institution to have a dedicate sub-division or any other structural unit that would be responsible for the implementation of educational programs for students with disabilities, their socio-psychological adaptation; the employees, on the other hand, shall develop their scientific and pedagogical potential in the area of inclusion and creation of a barrier-free university environment. These include:

- research unit of the university, dealing with the development and testing of special educational and rehabilitation programs of specialized education – engineering, humanitarian – for people with disabilities and disabled people. For example, the "Head training and research and methodological center for professional rehabilitation of persons with disabilities (hearing disabilities)" in the structure of MSTU. N. Eh. Bauman) [13];

- Saratov National Research State University N. D. Chernyshevsky [14] could be used as a base for such the center of inclusive support and social adaptation of students, implementing the functions of a comprehensive social, health-saving, psychological and pedagogical support of students, prevention of tolerant behavior, career guidance of "special" students;

- specialized laboratory that provides communication support (sign language translation, radio support, speech synthesizer, Braille display, etc.) of the educational process for students of various nosological groups (one operates at the Institute of Social Rehabilitation at the Novosibirsk State Technical University) [15].

The qualitative work of these and other structural units requires appropriate support from the IT side. The study on the experience of some Russian universities allows to identify the most successful and popular technologies of information support of inclusion, namely:

- placing the information on the rules of admission to the university for the persons with disabilities on the official website of a university (for example, the page of the official website of the Russian State Social University <http://rgsu.net/entrant/>, which contains data on the categories of persons entering the university under special law, the number of subsidised places in each educational program, the list of admission documents and how to submit them) [16];

interface that allows you to submit documents for admission to an educational remotely;

- specialized Internet portals that make the learning process for students with disabilities possible. For example, MGTU named after Bauman created the following applications assisting the learning process: "Sendpartial" helping students with disabilities to learn the terminology of technical disciplines relying on the use of sign language; the portal "Education without borders" (<http://edu-open.ru>), which is a database of scientific and methodological knowledge on inclusive education for parents and teachers [17].

- information search engines, automated self-service tools that allow students with disabilities to efficiently assimilate the necessary material, prepare homework, perform laboratory work [18].

It is revealed that for people with hearing problems, such information technology tools not only contribute to the formation of their professional skills but also significantly accelerate the process of auditory development.

The educational and methodical component of the inclusive educational environment is designed to assist both students with disabilities and teachers in the organization and content of the educational process. The elements of the educational and methodical component of inclusion are educational programs, educational and methodical complexes, textbooks and manuals, methodical and didactic materials, etc. The analysis of successful university practices allows us to formulate relevant requirements for the content of educational and methodological support of inclusion, namely [19]:

- organization and planning of educational and methodological support of inclusive education in a university should be carried out not fragmentary (individual units of the organization), but systematically ("top-down"). A set of minimum requirements for educational and methodological support is developed by a specialized university unit. All units implementing educational programs should be involved to the maximum extent possible. The initiative of units to

create additional, innovative educational and methodological tools for the development of inclusion is encouraged. The library of a university must be equipped with general printed educational resources for all educational programs taught in the university, the fund of additional literature, and specialised materials for children with disabilities;

- most textbooks and teaching materials should be practice-oriented, not only to promote the development of professional skills of students with disabilities but also to promote their social and psychological development, to integrate them into the university community [20, 21];

- educational and methodological support should include the participation of parents, family members and social environment to rethink traditional views and issues of education of students of different levels of development;

- adaptation of teaching materials for certain groups of disabled persons is mandatory;

- a separate block of educational and methodological support should be the support of retraining /advanced training of teachers for the development of an inclusive educational environment at a university based on information and communication technologies.

A good example of educational and methodological support of inclusion is the working program "Assistive information and communication technologies", the goal of which is the formation of the necessary competencies within the students with disabilities, developed at the Saratov National Research State University. N. G. Chernyshevskogo.

The program helps students with disabilities to acquire computer skills, work with electronic information and educational environment of the university using assistive technologies depending on nosology [8].

Finally, the infrastructure component of the development of an inclusive educational environment of a university includes the necessary material and technical base and architectural solutions designed to the following:

- compliance with sanitary and hygienic rules of education in terms of providing equal comfort and convenience for all students. These are certain requirements for water supply and sanitation, sewerage, lighting, air-heat regime, fire and electrical safety;

- the possibility of unimpeded access to the university infrastructure for people with disabilities, including parking spaces for disabled people, installation of ramps, convenient access roads, specially equipped elevators, etc.;

- compliance of sanitary norms with the needs of students with disabilities, including equipped wardrobes, bathrooms, places of personal hygiene, etc.;

- creation of educational conditions taking into account the needs of certain groups of persons with disabilities and persons with disabilities (properly equipped classrooms for lectures and practical training, sports and health infrastructure) [9].

#### IV. CONCLUSION

The above model of an inclusive educational environment (or its individual elements) can be used within any university. However, if the micro- and macro-

environments external to the educational institution do not contribute to the implementation of the educational and social needs of students with disabilities, the effectiveness of the implementation of this or any other model of an inclusive educational environment will be high very unlikely.

In this regard, the state, public, as well as educational institutions themselves, should consolidate their efforts to replicate the best practices of intra-university inclusion, stimulate the involvement of as many universities as possible in the process of creating a barrier-free, comfortable for all students' educational environment.

The actual tasks of the state in this direction are:

- to improve the legal and regulatory support for the development of more inclusive higher education. In this aspect, the Russian experience of regional lawmaking is very much in demand. As an example, the law of Moscow of 28 April 2010 No. 16 "On education of persons with disabilities in the city of Moscow", regulates the issues of state support of educational institutions, the coordination of activities of educational institutions, public organizations and citizens in the development of inclusive, professional employment of graduates of educational institutions with disabilities [18];

- to develop and implement targeted programs and projects to form a network of supporting universities who will be successful practitioners of inclusive education, as well as these involve the general-purpose universities in the process of expanding their social functions, including rehabilitation and educational tasks;

- organization of "pilot" projects for the development of internal inclusive educational environment in universities, based on the identification and analysis of successful practices in this area (Russian and foreign);

- initiation of national competitions for socially oriented projects focused on support and development of public initiatives in the field of inclusive higher education, activation of volunteer movement in these issues;

- creating and supporting the national educational resources of inclusive education.

Universities' policies should be focused on strengthening coordination, exchange of successful practices of inclusion (including strategy, methodology and methodology, technology, coordination), professional objective examination of the implementation of measures for the development of inclusion [19]. Since 2004 there is a Russian regional network of post-school education of hearing impaired "OPENRUSSIA" active since 2004 in Russia, the initiator of which was the MSTU Bauman's. The network includes Vladimir State University, Novosibirsk State Technical University, Chelyabinsk State University, Academy of the Tatar Institute for Business Promotion. Besides, the University of Bauman is a member of the International network of post-school education of deaf "PEN-INTERNATIONAL", which includes universities in 13 countries, including the United States, Japan, China, South Korea.

The network mode of interaction allows universities to create databases of innovative educational products for people with disabilities on the basis of information telecommunication technologies, and provide each other

with these products, organize educational courses for university staff to develop their inclusive professional skills, conduct thematic scientific and practical events (conferences, forums).

Finally, in the development of an inclusive educational environment, the public resource should be activated.

Non-governmental non-profit organizations, socially responsible business, volunteers today have a fairly rich and distinctive experience as well as multiple opportunities to promote the development of an inclusive educational environment in universities [22, 23].

As of 1. November 2017, more than 150 thousand non-governmental non-profit organizations have been registered in Russia to help the social adaptation of disabled people and people with disabilities, including the issues of professional standardization. In 2016, Russian donations to projects on social rehabilitation and professional adaptation of people with disabilities amounted to more than 140 billion rubles. The social responsibility of the Russian business in relation to the barrier-free environment, alignment of conditions for self-realization of persons with disabilities.

To intensify the activities of business, non-governmental and non-profit organizations, and citizens in the development of inclusion, large-scale social advertising of successful projects, coverage of the development of an inclusive educational environment in the quality management system of the university are required.

Thus, the educational environment of a modern university should become inclusive, its formation and development cannot be solved on the level of a separate university, but requires purposeful interaction of the state, business and the public.

The result of the creation of such a balanced educational environment should be effective employment of graduates with disabilities, which also belongs to the tasks of the university.

In the system of inclusive higher education, universities can and should assist their graduates with disabilities in employment.

Firstly, this assistance should help the future graduate to set their professional goals in time, assess their chances of professional self-realization and aptitude. Professional competence is a set of psychological and psychophysical qualities of a person, which are sufficient to reach socially acceptable productivity in the presence of special knowledge and skills. In other words, it is the satisfaction that a person experiences both in the process of work itself and in the evaluation of its results [20].

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