DEVELOPMENT OF STUDENTS’ SOCIO-CULTURAL COMPETENCY IN AN INCLUSIVE EDUCATIONAL ENVIRONMENT

DESENVOLVIMENTO DA COMPETÊNCIA SOCIOCULTURAL DOS ALUNOS EM UM AMBIENTE EDUCACIONAL INCLUSIVO

DESARROLLO DE LA COMPETENCIA SOCIO-CULTURAL DE LOS ESTUDIANTES EN UN ENTORNO EDUCATIVO INCLUSIVO

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Abstract: Modern trends in the development of the world educational community are largely aimed at implementing inclusion and providing quality education for disabled people. However, the practice reveals a lack of readiness of subjects of educational environment for inclusion as a form of education that causes various communicative difficulties. They in turn complicate the implementation of inclusive education identified in international law. This work is to substantiate the need of a special educational environment aimed at the developing students’ socio-cultural competency as a personal trait of the subjects of educational inclusion that provides social adaptation, integration, as well as professional and personal development of disabled people.

Methods: method of review and analysis; expert evaluation method; survey questionnaire, questioning of subjects of educational activity, examination of products of educational activity; statistical methods of information processing. Sociocultural competency is a multi-level integrative personal trait that allows building communication on the basis of sociocultural interaction. It includes social, personal and activity-based preparedness of subjects of educational process. The leading methodological approaches to the design of an inclusive educational environment aimed at the development of this characteristic are proposed and substantiated in this work. The study also describes the criteria and quality indicators of an efficient inclusive educational environment that ensures the development the studied competency in students. The results are interesting to Russian and foreign science that deals with developing theoretical aspects of educational environment design and managing the

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development of socially significant students’ competencies in an inclusive educational environment.

Keywords: Students' socio-cultural Competency. Educational Environment. Inclusion. Students with disabilities.

Resumo: As tendências modernas do desenvolvimento da comunidade educacional mundial visam, em grande parte, implementar a inclusão e oferecer educação de qualidade às pessoas com deficiência. No entanto, a prática revela falta de prontidão dos sujeitos do ambiente educacional para inclusão como forma de educação que causa diversas dificuldades comunicativas. Por sua vez, complicam a implementação da educação inclusiva identificada no direito internacional. Este trabalho é para substanciar a necessidade de um ambiente educacional especial voltado para o desenvolvimento como um traço pessoal dos sujeitos da inclusão educacional que propiciam adaptação social, integração e desenvolvimento profissional e pessoal de pessoas com deficiência. Métodos: método de revisão e análise; método de avaliação de especialistas; questionário de pesquisa, questionamento de sujeitos da atividade educacional, exame de produtos da atividade educacional; métodos estatísticos de processamento de informações. A competência sociocultural é um traço pessoal integrador multinível que permite a construção da comunicação com base na interação sociocultural. Inclui a preparação social, pessoal e baseada em atividades dos sujeitos do processo educacional. As principais abordagens metodológicas para o design de um ambiente educacional inclusivo, visando o desenvolvimento dessa característica, são propostas e substanciadas neste trabalho. O estudo também descreve os critérios e indicadores de qualidade de um ambiente educacional inclusivo eficiente que garante o desenvolvimento da competência estudada nos alunos. Os resultados são interessantes para a ciência russa e estrangeira, que lida com o desenvolvimento de aspectos teóricos do design do ambiente educacional e com o gerenciamento do desenvolvimento de competências de estudantes socialmente significativos em um ambiente educacional inclusivo.

Keywords: Competência Sociocultural dos Alunos. Ambiente Educacional. Inclusão. Estudantes com Deficiência.

Resumen: Las tendencias modernas en el desarrollo de la comunidad educativa mundial apuntan en gran medida a implementar la inclusión y brindar educación de calidad a las personas con discapacidad. Sin embargo, la práctica revela una falta de preparación de los sujetos del entorno educativo para su inclusión como una forma de educación que causa varias dificultades comunicativas. A su vez, complican la implementación de la educación inclusiva identificada en el derecho internacional. Este trabajo es para corroborar la necesidad de un entorno educativo especial dirigido al desarrollo de la competencia sociocultural de los estudiantes como un rasgo personal de los temas de inclusión educativa que proporciona adaptación social, integración, así como el desarrollo profesional y personal de las personas con discapacidad. Métodos: método de revisión y análisis; método de evaluación experta; cuestionario de encuesta, cuestionamiento de sujetos de actividad educativa, examen de productos de actividad educativa; métodos estadísticos de procesamiento de información. La competencia sociocultural es un rasgo personal integrador multinivel que permite construir la comunicación sobre la base de la interacción sociocultural. Incluye la preparación social, personal y basada en actividades de los sujetos del proceso educativo. Los principales enfoques metodológicos para el diseño de un entorno educativo inclusivo dirigido al desarrollo de esta característica se proponen y fundamentan en este trabajo. El estudio también describe los criterios e indicadores de calidad de un entorno educativo inclusivo eficiente que
garantice el desarrollo de la competencia estudiada en los estudiantes. Los resultados son interesantes para la ciencia rusa y extranjera que se ocupa del desarrollo de aspectos teóricos del diseño del entorno educativo y la gestión del desarrollo de las competencias de los estudiantes socialmente significativos en un entorno educativo inclusivo.

**Palabras clave:** Competencia Sociocultural de los Estudiantes. Ambiente Educacional. Inclusión. Estudiantes con Discapacidades.

1 INTRODUCTION

The dynamics of socio-cultural transformations due to the implementation of inclusive education both at the global level and within one state entails not only changing the requirements for the essential characteristics of the educational environment, but also to the conditions of its organization, to increasing the speed of its update in line with the social order. The emergence of different views on the interpretation of the targets of modern education in General, and inclusive educational environment in particular in social and pedagogical sciences sets the task of understanding the phenomenon of the educational environment, its qualities, structure and resources of personal development of its subjects, as well as the specifics of lifestyle with special conditions. Resolution of the problems of inclusive education requires resolving the problems of search, activation and development of resources and potentials of the educational environment, as well as the methodological design of the process of introducing modifications in the form of pedagogical technologies.

One of the indicators of the quality of the educational environment is the comfort for all its subjects. Consideration of the problems of educational environment and update of its impact on the personal development of its subjects are one of the leading tasks when setting targets for educational institutions. They are particularly important in the context of educational inclusion. Collaborative learning of students with disabilities is the most optimal factor for their successful integration into society. This is emphasized by numerous studies of Russian and foreign researchers. Special attention should be drawn to the 'innovative development of the educational system related to the general civilizational national-historical and cultural orientations, specific conditions of education of disabled people as a social group' (2014). Another important aspect is the unified system of qualified assistance in professional identity and career guidance support (2018). These two increase the level of social security and financial independence of the disabled (2016). Practicing scientists confirm the importance of quality education for the disabled people for certain social needs that provides for both employment opportunities and update and promotion of inclusive society (2017) based on the social model of disability (2015).

For the vast majority of young people with disabilities, education is a vital necessity that allows them to meet their needs. Fulfillment of the needs largely depends on the motivation, ability and readiness of all subjects of the educational process to accept inclusion. Inclusion involves the organization of socio-cultural
real interaction between students; it is aimed at the development of socially important personal traits, one of which is socio-cultural competency. The attention of scientists is drawn to determining the essential characteristics of socio-cultural competency, inventing models of its development, as well as the mechanisms and conditions for the implementation of these models. This phenomenon is seen and interpreted from different perspectives, resulting in more positions varying in defining the very concept of socio-cultural competency and the development of mechanisms, conditions, and models of its development.

The analysis of practical inclusive education reveals certain obstacles in the implementation of its goals and objectives (2018), which may be due to the lack of preparedness of subjects to adopt the principles of inclusion, and lack of formation of personal characteristics of each as a subject of inclusion. These obstacles currently complicate creation of an efficient inclusive educational environment, due to which the low level of socio-cultural competency of all students limits the success of their interpersonal communications for full participation in public life. It becomes obvious that the improvement of the quality of the organization of inclusive education will be due to the positive dynamics of socio-cultural interaction of students in designing and functioning of a special developing inclusive educational environment. This entails the need to strengthen the social and cultural components of the environment during the training of students at all stages of implementation and functioning of the environment. This actualizes the importance of an effective analysis of the inclusive educational environment and highlighting its qualitative characteristics as resource opportunities and socially significant qualities of students' personality, including the socio-cultural competency. All this determines the purpose of this study: it is to substantiate the need to design a special educational environment aimed at the development of socio-cultural competency in students as subjects of educational inclusion, providing social adaptation, integration, professional and personal development of the disabled.

2 LITERATURE REVIEW

The analysis of modern philosophical, sociological, psychological, and pedagogical literature allows to assert that the educational environment has a significant material, psychological and substantive potential of building efficient relationships and activities of the subjects of the educational process.


The analysis of theories and practices of various existing educational environments shows that the issues of development of the environment in the development of personal traits of the disabled students and students without disabilities, managers and teachers, support professionals, and parents of both categories of students stay in the background both in theory and in practice of inclusive education. This causes a number of contradictions due to the requirements of modern understanding of fundamentally new needs of inclusive educational environment and its subjects, and insufficient use of its potential for personal development in accordance with the principles of inclusion. One of the factors of successful interpersonal communications and realization of personal potentials and needs of all categories of students including students with HIA can be called the development of socio-cultural competency. In its broad sense, this concept is more often associated with the ability of a person to establish constructive relationships in a multicultural educational space. It is also understood as the characteristic of a person who owns a cultural way of behavior in society (2012).

Socio-cultural competency in modern pedagogy is interpreted as an integrative personal trait showing personal theoretical and practical readiness for socio-cultural activities. It shows that a person owns culturalism in his social life and the ability to solve social problems in emerging normal and emergency situations (2012). Another definition is presence of a tolerant and open attitude towards representatives of different language communities, the ability to solve tasks creatively, as well as the ability to mobilize all the experience and existing socio-cultural knowledge for effective resolution of specific professional tasks in intercultural communication (2006).

Justifying the need to develop and design such an educational environment that would be focused on forming the socio-cultural competency as a component of the general professional competence, some scientists consider the formation of this phenomenon through the prism of professional training, developing a model of the formation and development of this phenomenon and determining the conditions for the implementation of this model in connection with the specifics of the professional profile. They are M. V. Bolina, E. V. Dvorak, E. A. Zhezhera, T. A. Zhukova, S. M. Kolova, I. A. Levitskaya; D. N. Mashkov Zh. Yu. Mishanina, S. V. Pakhotina, L. A. Rychenkova, I. G. Samokhvalova, I. K. Yartseva (2001; 2006; 2008; 2007; 2002; 2016; 2011; 2010; 2007; 2008; 2012; 2015). Socio-cultural competency is described as an integrative trait assuming the presence of knowledge about various social and cultural spheres, the ability and willingness to interact with other people in different aspects of life. The trait is based on the personal meaningful experience providing the ability to use information resources for sense-making creative activity in the information space (2011). A. E. Rakhimova identifies motivational, intellectual and self-organizing components in the structure of the studied competency. She presents this phenomenon as a complex integral personal-activity trait inherent in a modern person-a participant of the cultural dialog and reflecting the
totality of personal qualities and abilities, socio-cultural knowledge and key skills necessary for its formation in the process of creative and research activities using computer and multimedia technologies (2007).

The essence and the components of socio-cultural competency and stages of its formation by means of all university disciplines are disclosed in the works by Yu. A. Kustov, Yu. A. Livshits and S. V. Statsuk (2014). They consider competencies as a generalized intercultural and intersectoral knowledge, skills and abilities that are necessary for entering the society and productive activities in various social, cultural and professional communities.

Within the framework of the considered problem, E. A. Stukolova’s idea of socio-cultural competency as a structural set of rules and norms of a particular social group, social roles, as well as value orientations, cultural patterns of behavior and language is very interesting (2012). It also includes the peculiarity of understanding the concept of 'I' from the standpoint of the cultural characteristics that are welcomed in this society. These conclusions show the importance of socio-cultural competency for adaptation, socialization and self-identity in a multicultural society and consider the inclusive educational environment in the scope of development of the desired personal traits.

The urgency of solving the problem of quality education for disabled people was one of the factors of development of inclusive education in European countries, Japan and the USA (2015).

Educational policy justifies the availability of vocational training of the physically challenged young people (2016) taking into account their psychological and physiological peculiarities (2016), which are known to all subjects of the educational process (2016). Also, vocational training involves the inclusion of physically challenged people in the educational environment that updates their abilities and individual features (2017), as well as implements innovative forms of correctional support (2015). Social efficiency of inclusive education (2016) is possible due to 'development of social and professional structure of society' (2006) and acceptance of the disabled people as full members of society (2014) with the provision of psychological and pedagogical support of inclusive educational process (2016), social adaptation and rehabilitation of such students (2009). The importance of high-quality higher (HE) and secondary vocational education (VE) as well as employment is one of the factors to ensure their successful socialization and full participation in all spheres of society. U. Sharma and A. Das believe that the development of the social experience of all categories of young people reveals the efficiency of the implementation of inclusive education (2015), which further guarantees the economic independence of physically challenged graduates in professional and personal self-determination. The priority is equal access to quality education (2015) in accordance with international declarations and conventions (2014) designed to pay special attention to ethnic minorities and representatives of low-income countries (2014) in the era of digitalization of the education system (2007). Thus, in the student environment, inclusion strategies are considered as a factor of success of all students (2015).
In foreign countries, inclusion was initially associated with racial problems and social inequality (1913). That is why the social attitude still determines the social problem (2013). In addition to the need to ensure social equality of all students, A. Ch. Armstrong, D. Armstrong and I. Spandagou (2010) emphasize the development of innovative approaches to training to eliminate any forms of discrimination against physically challenged people (2013) and to promote tolerance and personal freedom designated by the European Agency for the development of special and inclusive education (2018). These approaches define different strategies for organizing joint training (2014). According to D. Hill and D. Brown, the physically challenged students should be actively engaged in setting goals and group decision-making to develop skills of self-organization (2013) in an inclusive educational environment, in which participants are ready to move away from the traditional education system (2013) and to increase the participation of all actors in learning (2011) and in the lives of students with disabilities. The success of socialization and development of personal and educational needs of physically challenged people depends on the attitude of all subjects of the educational process to these people, which still requires a radical restructuring due to existing prejudices. Thus one can forget about the full readiness of the subjects of the educational process for inclusion, the result of which is the construction of an educational community ready to support physically challenged students. The promotion of high achievements (2018) of all parties (2017) in the process of acquiring the experience of social relations remains rudimentary.

True inclusion requires accepting the diverse needs of learners and the desire to meet them through increased participation of all parties of the educational process in cultural and social life. The cultural component of the inclusive educational environment is based on considering problems of inclusion in the global educational systems. It allows recording the specifics of local conditions in setting the appropriate educational policy (2010). Thus, the inclusive educational process involves a reorientation to taking into account the cultural differences of students with disabilities (2018) regardless of their gender and religious beliefs (2015), as well as their preparation for a full life in a multicultural society (2017), which is often complicated by stereotypes. Society's recognition of this social category is combined with a willingness to work in new conditions (2015) where all subjects of the educational process respect the identity of culture and cultural diversity of students (2015). This requires reduction of the number of those excluded from the educational process (2015), and ensuring the development of their personal traits, as well as recognition of their individual educational needs (1999). Avoidance of these problems at modern stage of implementing educational inclusion indicates a lack of readiness of subjects to accept the cultural characteristics of physically challenged.

The social and cultural components of an inclusive educational environment determine the features of organization of socio-cultural interaction in professional training, since the main thing in the inclusive education of a young person with disabilities is to obtain educational and social experience together with peers. Inclusive educational process is focused on socio-cultural dynamics (2016) that involves the
enrichment of experience. This process takes into account (according to C. Forlin and T. Loreman) the sociocultural context of students (2014) that accepts the features of multicultural society (2017) with all its sociocultural traditions (2014). According to E. L. Shackelford and M. Edmonds, it is important to take into account cultural differences and individual characteristics in interpersonal communication at all levels of education (2014). It is noted that the socio-cultural context plays a leading role in determining whether inclusive education exist in a number of regions and countries of the world (2014), including developing countries (2014). Currently, one of the accents is the education of foreign students in the conditions of inclusion (2017). Referring to this experience in England, A. Soorenian emphasizes the relevance of inclusion in the conditions of internationalized education system in professional training. At the same time, the researcher notes the lack of regulatory and methodological support necessary for the successful inclusion of students with disabilities in the educational process (1913). These features also indicate the lack of readiness of the subjects of the educational process of institutions of vocational and higher education to the successful organization of social interaction of physically challenged students.

Analysis of literature reveals a lack of attention to the preparation and readiness of subjects of the educational environment to inclusion as the best form of joint education for students of different health groups. It is also about the readiness of subjects to develop socio-cultural competence as the most important personal trait that determines the success of interpersonal communications in a multicultural society. In this regard, there is a need to determine the essential characteristics of an inclusive educational environment that contributes to the development of the desired personal traits in students during their professional training.

Consideration of the educational environment as a system of influences and conditions of personality formation, as well as opportunities for its development in the social and spatial-subject environment, as well as understanding that the environment is characterized by two levels (socio-cultural and situational) allows to compare the characterological features of the means of education and factors of the educational environment in historical retrospect.

According to A. I. Subetto (2012), each 'civilization' forms its own 'iconl of the person'. It also forms the quality of educational environment of modern foreign systems and connects it with the concept of the model of quality of the person in national system of education.

In Russia, this model is embodied in a person as a kind of mirror of the existence and development of Russian civilization and its society. Perceiving the educational environment as one of the determining factors of students' development has always been traditional for Russian pedagogical practice.

Modern researchers note the key importance of educational environment in the system of higher education, describing it as a complex, heterogeneous, and sometimes internally contradictory phenomenon.

Any educational environment is described through its components: social, spatial-subject, informational and psychodidactic or technological ones. Other aspects are different characteristics, typology (by the style of interaction
within the environment, by the nature of the relationship to social experience and its transmission, or by the degree of creative activity and the nature of interaction with the environment), and belonging to a group of spheres and a certain type. Therefore, the local educational environment of a separate organization is described by a variety of parameters. It is a multidimensional space in line with the modern needs of children and adults. In addition, the educational environment invariably performs educational functions. It is educative as part of the socio-cultural environment that consists of the surrounding social, material and spiritual conditions of human existence and activity, as well as has a creative educational potential. Educational potential is a set of available means of educational environment, its reserves and opportunities. Its implementation depends on thoughtful management of nurturing environment, content and forms of interaction between children and adults. The basis for the realization of the upbringing potential of the educational environment of the school is the number of specific principles and conditions. The theoretical analysis of the state of the educational environment allowed to conclude that it can be considered as a kind of regulator of relations of subjects of education and the main condition of personal formation of the student at the level of the organization. To design the educational and developing environment, it is necessary to determine its main components, their relationships, conditions, directions and levels of development, as well as the technology of students engagement.

The educational environment is a developing space-time continuum that accumulates purposefully created conditions for interaction of the subjective world of the developing personality with unique characteristics (choice of experiences, search for meanings) and the objective world (other personalities, scientific and pedagogical schools, subject-spatial environment). The goal and value is to increase one's own subjectivity and realization of personal potential (2011).

Educational potential is a set of available means of educational environment, its reserves and opportunities. Its implementation depends on thoughtful management of nurturing environment, content and forms of interaction between children and adults. The basis for the realization of the upbringing potential of the educational environment of the school is the number of specific principles and conditions. The theoretical analysis of the state of the educational environment allowed to conclude that it can be a kind of regulator of relations of subjects of education and the main condition of personal formation of the student at the level of the organization. To design an educational environment, it is necessary to determine its main components, their relationship, conditions, directions and levels of development, as well as the technology of students engagement.

These general characteristics of educational potential include: emotionality, dominance, mobility, coherence, stability, intensity, breadth, modality, awareness, and social activity.

An indicator of the high quality functioning of the educational environment is its ability to meet the needs of all subjects of the education process, creating an appropriate motivation for their active activities taking into account the opportunities provided. Multicultural educational environment, functioning in the conditions of inclusion, can be represented as a set of conditions and influences that ensure the formation and further development of personal traits of students as a result of value attitude to the personal development of physically
challenged people (2015). The result is described by their social adaptation and personal self-realization (2017). This environment is a set of organizational-pedagogical and socio-psychological conditions that form the basis for the actualization of personal and educational needs, individual features and opportunities, and having an educative personal potential for previously undeveloped abilities (2018). Such environment ensures the development of various forms of alternative education and comprehensive support for all students while mastering the competencies that would help to have good quality of life, as independently as possible (2009). The strategy of inclusive education is aimed not only at mastering students’ professional, but also socio-cultural competence. The high level of the latter justifies the efficient integration of physically challenged people into society. The formed competency is considered both as intellectually and personally determined social and professional characteristic (2013), and as realization of competencies of graduates (2004). It describes the motivated abilities (1997) and set of the personal traits necessary for implementation of personal socially significant productive activity (2003). It is important to take into account the content of socio-cultural competency of university students for it is diverse, as evidenced by different approaches to its structural components. The idea of T. Parsons on representing culture as a subsystem that promotes the integration of subjects on the basis of the assimilation of common values (2014) is embedded in the structure of three interrelated components: cognitive, value and practical-effective.

Implementation of the development of inclusive educational environment can be represented as technology (normal activity) that determines stages of technology, their technological features and conditions of implementation, resource support technology management development of educational potential of the educational environment, and conditions of efficiency of the educational environment.

The substantiation and description of the essential features of the inclusive educational environment is related to the study of the readiness of the educational environment of vocational and higher educational institutions for the development of socio-cultural competency. The methodological basis for the implementation of these programs is an inclusive approach to education. It justifies the increase in the degree of activity and equal participation of all students including the disabled in public life. Also, this approach determines the ways to overcome discrimination (2015) in socio-cultural interaction. Within the framework of this approach, the essence and content of students' socio-cultural competency is a result of using the review and analysis research method based on the literature review of foreign and Russian publications. This review allows describing the studied competency in relation to the inclusive system of vocational and higher education. The need for this review is also related to the level of readiness of the subjects of the educational process to accept inclusion in the training process accompanied by efficient modeling of an inclusive educational environment.

The development of a system of criteria for assessing vocational and higher education as an environment for the formation of socio-cultural competency is associated with the assessment of factors that are necessary for the development of all components of an inclusive educational environment. This implies an analysis of the readiness of the subject-spatial, social and activity organization of the environment. This
studi included a sociological survey aimed at identifying the set of characteristics important for the efficient entry into an inclusive educational environment, adaptation, socialization and self-realization of its subjects. The survey involved university teachers and professional education organizations, both physically challenged students and students without health restrictions, parents of students of both categories, undergraduates and their parents. The survey was anonymous. Assistance in the organization of the survey was provided by the heads of higher and vocational educational institutions, support specialists, tutors of student academic groups, and teachers-students of advanced training courses. The total sample size was more than five thousand people. The assessment of sufficiency of the sample for questionnaires and surveys was carried out using Excel 2010 spreadsheets. The minimum sample size sufficient to ensure the representativeness was determined. The acceptable level of confidence at which the results of the sociological study are representative and statistically significant is 90%. At this level of confidence, the standardized deviation is 1.65. The sociological survey was conducted using the Google form.

To identify, specify and complement the essential features of socio-cultural competency as a factor of the efficiency of educational inclusion, levels of its formation and subsequent pedagogical expertise of the developed competency-oriented assessment tools, the study used qualimetric approach measuring the quality of the studied parameters (V. I. Baydenko, A. I. Subetto, E. L. Thorndike et al.) (2006; 2012; 1913).

The group expert evaluation is also one of the possible ways to solve the problem of monitoring the formation of socio-cultural competency and to determine its essential features and levels. Within the framework of this method, pedagogical examination of stimulus material (questionnaires, tests), as well as components of competency and their descriptors was carried out by a group of selected experts. The requirements to the competence of the expert included: awareness in problems of inclusive education, experience of professional and pedagogical activity in inclusion, known features of employment of graduates of higher education institutions and professional educational organizations, including graduates with disabilities, objectivity, lack of conformism, reflexive abilities, and interest in results of monitoring. **Expert groups at different stages of design and discussion of evaluation materials included the most qualified teachers, tutors of academic groups, support specialists, representatives of the parent community (parents of students with disabilities and parents of other students), employers, members of public organizations of disabled people, master students and graduates.** The information was processed using Excel 2010 spreadsheets, which allowed to avoid cluttering the text with mathematical formulas and calculations. The expert’s competence, consistency and strength were assessed to ensure a given measurement error and level of significance.

The total number of candidates for experts was 230 people. Calculations on the required number of experts for pedagogical expertise were made using Excel 2010 spreadsheets. Methods for quantitative assessment of the competence of experts included self-assessment, mutual assessment (method of mutual recommendations), assessment of personal data, as well as assessment of reasonableness (2015).
The coefficient of competence of the $n$ expert was determined by the sum:

$$K_n = C_1 K_n + C_2 K_n + C_3 K_n + C_4 K_n,$$

where $C_1$, $C_2$, $C_3$, $C_4$ are the weighting coefficients of the competency estimation methods: mutual recommendations ($C_1$), self-assessment ($C_2$), reasonableness assessment ($C_3$), and questionnaire assessment ($C_4$). Their sum equals one according to the normalization condition.

The method of mutual recommendation was in fact selection or voting. Evaluation method of reasonableness took into consideration the sources of reasoning that influence the opinion of the candidate: education, special training (retraining) to work in inclusion, professional/teaching experience, experience in inclusion, experience with learners having special needs and/or disabilities, participation in pedagogical expertise, position, presence of scientific publications on the studied problem, etc.

The consistency of experts made it possible to determine the similarity of individual expert evaluation (for a single indicator or for all indicators of the questionnaire). The analysis of the results of the expert opinion consistency check made it possible to identify those whose conclusions differed significantly from the group assessment, as well as to determine its evaluation error and establish a confidence interval among the candidates for the expert group.

A linear convolution model was used to aggregate individual expert evaluations using the formula

$$Q = C \sum_{i=1}^{N} \sum_{j=1}^{n} q_{ij} v_i k_j,$$

where $Q$ is the peer review group;

$C$ is the normalization coefficient, $C = 1/ N \cdot n$;

$N$ - number of experts;

$n$ – number of questionnaire indicators;

$q_{ij}$-assessment in points by $j$ expert of the $i$ indicator of the questionnaire;

$v_i$-weight coefficient of the $i$ index of the questionnaire;

$k_j$ is the competence coefficient of the $j$ expert.

The most important indicator of the efficiency of the educational environment is the comfort of its subjects (Ya. Korchak). On the basis of the identified criteria and indicators for assessing the quality of the educational environment, it was important to determine the emotionality of the educational environment, its security, safety and satisfaction. The work used T. Ehlers test "Motivation to avoid failure". It is aimed at assessing the level of personal protection determining the motivation to avoid failure and fear of unhappiness. This methodology was to assess the social expectations of graduates of secondary schools, first-year students with disabilities and their parents. It should be noted that this method has been modified to
take into account educational inclusion in order to avoid incorrect attitude to special students. The specified technique revealed four levels of motivation of subjects to protection and avoidance of failures: low, medium, high and too high. Further work needs the opinion of scientists that focus on protective behavior depends on factors like awareness of the degree of possible risk, motivation, prevailing in the subjects of activity, as well as the experience of failure in this or related areas of activity. To assess the level of motivation to avoid failure and the level of motivation for success, the methodology based on the questionnaire by A. A. Rean "Motivation for success and fear of failure". Based on the analysis of twenty statements of respondents, it was possible to identify the tendency of subjects of educational inclusion to avoid failure or motivation for success. It should be noted that the motivation for success is a positive motivation, when the subject starting their activity is focused on achieving a constructive, positive result (product). The basis of subjective activity is the need to achieve success, the hope for success.

The analysis of indicators by this method was important for determining the psychological climate of the group, team or faculty working (or starting work) in an inclusive educational environment. Indicators of increased anxiety of subjects of educational inclusion and low self-confidence required serious changes accompanied by the introduction of the model of inclusive educational environment aimed at the development of socio-cultural competency in students. This was especially important in working with parents and teachers as translators of the subjective experience of accepting educational inclusion as the optimal form of higher education.

The analysis of respondents' answers revealed the following:
- motivation (hope) for success is recorded in 36%;
- motivation for failure is 38%.

In 26% of respondents, the motivational pole was not pronounced, it was possible to speak only about the prevailing trends for success and trends of fear of failure. These indicators were taken into account when adjusting measures aimed at activating the potential of the environment in the formation of socio-cultural competency.

To determine the relevance of the basic needs of the subjects of educational inclusion, the study used the method "Hierarchy of needs" modified by I. A. Akindinova. It revealed the most significant needs-motivators of subjects of the educational environment, such as safety need, need to express oneself (self-actualization), and material needs. These materials were necessary for efficient construction of social interaction in the conditions of inclusion on the basis of the analysis of the need sphere. Based on the results of self-diagnosis, the respondents were asked to build their own profile of satisfaction of needs in an inclusive educational environment according to five scales: financial situation, the need for security, the need for interpersonal relationships, the need for respect from others, and the need for self-realization.
To determine the focus of an individual, the study used the orientation questionnaire-the method of B. Bass. The questionnaire included the statements with three possible answers, corresponding to three types of personal focus: focus on himself (I), focus on communication (C), focus on business (B) — interest in solving business problems, doing work as best as possible, focus on business cooperation, the ability to defend their own opinion, considering it as useful to achieve a common goal.

Express diagnosis of the level of social frustration of the individual was aimed at tracking the degree of dissatisfaction with the social achievements of subjects of educational inclusion in the main aspects of life. It was important to determine the vectors of correction of the social and activity component of the inclusive educational environment.

3 RESULTS

As a result, inclusive educational environment that contributes to the development of socio-cultural competency in students was finally described. Its main characteristics include: breadth, intensity, awareness, generality, emotionality, dominance, coherence, activity, mobility, as well as organizational and managerial skills of managers and teachers in higher and vocational education updated during the educational process and extracurricular activities; the ability to create a special atmosphere favorable for the personal development of all categories of students.

Support specialists and teachers of higher education institution (departments of pedagogy and psychology) carried out the work on social and psychological education and consultation. Communication trainings and life coaching organized for all subjects of educational relations and the use of interactive technologies of the educational process were aimed at the development of students’ socio-cultural competency in an inclusive educational environment. Exchange of experience, consulting on development of adaptation programs, programs of personal self-realization on the basis of abilities, interests, inclinations, and preferred types of activity in the conditions of the inclusive educational environment was carried out. Various forms of improving the professional culture of teachers were introduced according to the peculiarities of organizing the educational process in the conditions of inclusion (mutual attendance of classes and tutor’s hours, participation in seminars, webinars and round tables on the problems of inclusive education, refresher courses on additional education programs within the framework of the problem). Parents of students with disabilities, parents of students without disabilities, and representatives of employers were invited to participate in tutors’ hours and round tables. Workshops, master classes, pedagogical councils, and psychological and pedagogical councils were held to generalize the experience of university teachers in this problem.

The study used the following organizational forms: seminars and workshops for teaching staff and administration, educational councils, psychological and pedagogical councils, involving parents and family
members of students, representatives of public organizations and employers; different forms of contact individual and group staff development for inclusive education, students, teachers, parents (families) on the basis of diagnostic results of implementing the model; workshops, master classes, pedagogical tips, psychological and pedagogical councils to consolidate the experience of university teachers in solving the problems of development of socio-cultural competency and to find ways and conditions for its further development.

The best educational technologies were learner-centered, dialog, communicative, and reflective. The complex of organizational and pedagogical conditions for the formation of an inclusive educational environment of the university, necessary for the development of socio-cultural competency in students in the process of professional training is as follows: information openness and transparency of diagnostic procedures; feedback from the participants of educational relations; timely informing of subjects of educational inclusion about current and upcoming organizational and pedagogical modifications of the environment; active participation of all subjects of educational relations in monitoring the efficiency of the implementation of inclusive educational environment; the system works on the compilation and implementation of effective pedagogical practices for the development of sociocultural competence of students; the development of independence of students in the development of individual educational programs and educational routes in terms of inclusion; revitalization of educational inclusion in the strategy of development of sociocultural competence of students as a common goal.

4 DISCUSSION

This study defines the features of the educational environment that correspond to the main levels of readiness of the subjects of the educational process to accept inclusion in professional training. These features reflect the study of professional and personal qualities, attitude to an inclusive educational environment in higher and vocational education, as well as readiness for interpersonal communications in an inclusive educational environment. On the other hand, these characteristics correspond to the revised content of socio-cultural readiness of students, including personal, social and psychological readiness. Moreover, the psychological readiness of the subjects of the educational process is the basis for other components since it efficiently develops the socio-cultural competency in an inclusive educational environment during professional training.

The examination of the educational environment of the experimental sites revealed significant changes in the quality, which affected the positive dynamics of indicators according to the following criteria: breadth, intensity, awareness, generality, emotionality, dominance, coherence, activity, and mobility.
According to the results of the forming experiment, the assessment of the educational environment by students and their parents changed positively. It was expressed in the growth of indicators for the parameters 'Spatial and architectural organization of the environment' (architectural and spatial support; electronic, information and advisory resources) \((t=3.54; p<0.01)\), 'Readiness of the audience' \((t=3.29; p<0.01)\).

Parents of students of a number of experimental groups had significant positive changes in relations with the tutor \((t=4.27; p<0.01)\) and teachers \((t=4.913; p<0.01)\). The students of the experimental group noted significant positive changes in the psychological atmosphere \((t=3.69; p<0.01)\). In addition, the pedagogical interaction within the teaching staff, the interaction of teachers with students, as well as external interaction with parents of both physically challenged students and students without disabilities moved to a higher level. According to the scales 'Good psychological climate in the group' and 'Formation of common group values', the results were distributed as follows: \((t=4.72; p<0.01)\) and \((t=4.45; p<0.01)\), respectively. The indicators of students' readiness for interpersonal communication in an inclusive educational environment and their interest in interpersonal communication also changed. However, the indicators according to the scale 'Mastery of communication models in an inclusive educational environment' changed very slightly \((t=2.03; p<0.01)\). Perhaps this is due to the lack of experience in engaging students in joint activities and the lack of interactive forms of work with both groups and individual students to master these models. The assessment of satisfaction of students with disabilities from inclusion in extracurricular activities was higher by almost 18% \((t=3.62; p<0.01)\). Synthesis of theoretical sources in the stated problem, the analysis results of willingness of all actors of education to adopt inclusion, as well as positive trends in the characteristics of the environment regarding the comfort of all its subjects emphasize the need for special modeling of inclusive educational process aimed at the efficient development of sociocultural competence of students in terms of studying at the university. This process is based on an inclusive approach to higher and vocational education, and reflects the interdependence of social and cultural components of the model.

5 CONCLUSION

The aim of the inclusive educational environment of universities today is not only the training of graduates with a certain level of competencies for successful employment and professional fulfillment. It is also personal development of students as a subject of multicultural society, capable of effective interpersonal communication in terms of social inclusion as an objective reality. It is particularly important to focus on the social and cultural component of an inclusive educational environment that describe the necessary conditions for the readiness of the subjects in the educational process of the institutions of higher and professional education to socio-cultural interaction as the basis of joint education of physically challenged
students and the others. In professional training, it is important to build an educational community that is ready to support students with disabilities and implement strategies of joint group training.

The revealed insufficient level of readiness of subjects of educational process to professional development of social and cultural competency diagnosis justified the need to design the correspondent inclusive educational environment. Justification and description of the studied modeling is necessary for all subjects of the educational process, working and studying in institutions of higher and vocational education both in Russia and abroad. Since foreign and Russian experience in the implementation of educational inclusion needs improvement, the results of the study would enrich the international theory and practice of vocational training of physically challenged students.

The efficiency of the design and implementation should be confirmed by questioning the subjects of the educational environment to determine the degree of their readiness for educational inclusion after the design processes. It is important to reflect quantitative indicators of changes during the design. This data should be subjected to qualitative analysis and mathematical processing. On the one hand, this circumstance is a limitation of the study; on the other hand, it is a field of further research related to the professional development of students' socio-cultural competency. This implies an analysis of the readiness of the subject-spatial, social and activity organization of the environment. Only then it will be possible to talk about the problems of readiness of each of the components of the inclusive educational environment and to determine the vectors of activities to modify the inclusive educational environment that contributes to the professional development of students socio-cultural competency as a whole, as well as its individual components.

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