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## **ASSESSMENT BY THE PEDAGOGICAL COMMUNITY OF INCLUSIVE COMPETENCIES OF SPECIAL TEACHERS**

### *Abstract*

The article is devoted to the issues of the readiness of special teachers to work in the conditions of inclusive education. The current state and problems of the formation of inclusively oriented professional competencies of special teachers are analyzed. The importance of inclusive competencies for special teachers for successful work in the general education process is proved, and the necessity of systematic and comprehensive pedagogical activities for the formation of these competencies is substantiated.

The article presents brief results of a specially organized interview of the administration and teachers of secondary schools, the purpose of which was to identify their opinions on the level of readiness and formation of inclusively oriented professional competencies of special teachers.

It was determined that teachers and the administration of general education organizations attributed to the professional qualities of a special teacher who effectively implements his activities in inclusive education: competence, pedagogical ethics, practical skills, understanding and acceptance of a child with disabilities, flexibility and adaptability, the ability to adapt by the characteristics of the child or the educational situation, sociability and willingness to cooperate, emotional stability and stress resistance, skills of working in an interdisciplinary team, responsibility, diligence, availability of certain organizational skills, etc.

*Keywords:* special teacher, readiness, university training, inclusive education, limited opportunities, professional competencies.

**Introduction.** Current trends in education on the issues of inclusion of children with disabilities in the general educational process are of particular focus in many countries of the world (Khalil et al., 2023). The transition to inclusive education is increasingly associated with actively developing trends in the humanization of education and the transition of special education from a medical model to a social one. Inclusion in education is actively spreading in the Republic of Kazakhstan by the world's leading trends. In proportion to this, the number of special teachers required for general education organizations to work with children with disabilities is also growing. Despite the activities carried out in the country to organize inclusive-oriented training of special teachers, so far, many issues remain insufficiently developed and theoretically substantiated, which in itself requires serious research, because the number of children with disabilities studying in general education institutions is steadily growing, and the severity and variations of manifestations of various disorders are constantly expanding. Therefore, at all levels of the education system, the question of preparing future special teachers for work in the conditions of inclusive education is seriously raised and the level of compliance of their professional competencies with the requirements of general education organizations is actively discussed (Orndorf et al., 2022). At the same time, the study of the requirements of inclusive organizations for the professional competencies of a special teacher, which presupposes the presence of established knowledge of diagnostic, rehabilitation, consulting, and correctional and developmental work, becomes relevant (Kenny et al., 2023). A wide variety of variants of developmental disorders and a variety of types of special and inclusive organizations place high demands on the professional competence of a special teacher. Inclusive-oriented training of special teachers, providing correctional and pedagogical assistance and accompanying children with disabilities, involves the development of additional professional competencies for the formation of a positive public opinion on inclusive education and establishing contacts with teachers of general education, other specialists (psychologists,

social teachers, teaching assistants, etc.), parents, various social groups and organizations.

At the same time, when describing the process of training special educators as “defectologists” at present, the words of American Scientists Dryden & Vos (2003) are most suitable, which say: “The world is changing so rapidly, and educational systems are so indirect and inert that they continue to serve the past, trapped in time and exhausted” The lack of scientific analysis and theoretical justification of inclusive-oriented professional competencies by the needs of general education organizations may be a possible reason for a long and painful restructuring of the process of training special teachers in the country. This situation is facilitated by the lack of a unified graduate model in special pedagogy and a clear list of professional competencies for a university graduate, as well as the insufficient scientifically based Kazakhstan educational and methodological support of the educational process for training special teachers.

**Main part.** The study of the scientific literature, the analysis of the most important characteristics of the professional competence of special teachers, the features of pedagogical activity made it possible to identify the professional competence of a special teacher as an integrative personal trait based on a set of professional and pedagogical knowledge, practical qualifications and skills, experience of activity, testifying to the readiness and ability of a specialist to successfully carry out professional and pedagogical Activity (Movkebayeva & Dyusenbayeva, 2021).

In general, professional and pedagogical competence includes a whole range of competencies actualized in the practice of professional and pedagogical activity and has a constituent structure related to a creative understanding of the activity. The set of competencies of a specialist is “distinguished” on the one hand by the main customers of the vocational education system - employers, the state, and society, on the other by the student himself, as a future specialist, and by the education system. Employers, society, and the state are external components of the education system, but they ultimately judge the quality of specialist training, primarily the practical component.

For the employer, a high level of professional competence of a specialist is important, which involves the ability to effectively perform professional functions, and the ability to solve certain classes of tasks and problems in Practice (Raven, 2002).

Analysing the work of foreign scientists on the problems of requirements for a special teacher working in the conditions of inclusive education, one can note the opinion of some researchers who point out the insufficient personal training in the conditions of inclusion. Thus, foreign scientists (Forlin & Chambers, 2011) noted that at present the issues of increasing the effectiveness of educational units of inclusive education are being actively studied, as well as the issues of identifying the necessary components for the successful preparation of special teachers for inclusive education are being discussed.

It should be noted that foreign authors indicate the existence of complex conceptual and design problems that researchers face when developing quality indicators of the readiness of special teachers to work in inclusive conditions. So, American scientists argue that in determining the requirements for the process of training special educators, for their training as a whole, it is necessary to determine what it means to be a qualified and novice teacher of special and inclusive education. This is not an easy task if we take into account the diversity of developmental disorders in different children and other features of their psychophysical development. As indicators of inclusive-oriented readiness, it is proved: firstly, a certain level of professional knowledge is necessary for the training of students with completely different educational needs, secondly, the presence of competencies to provide advice and assistance to all subjects of the inclusive educational environment in various fields of development, upbringing, and training of children with disorders differentiated by severity and type, and thirdly, the possibility of interaction in various forms and types with other, homotypic children, administration and parents.

Considering the problem of readiness of special teachers for work in the context of inclusive education, it should be noted the problem of inclusiveness is required in the context of inclusive education and the presence

of different approaches of different scientists to the study of the emerging competencies. Thus, scientists Forlin and Chambers (2011) consider in their research a positive attitude towards inclusion in education as one of the most important competencies and a willingness to closely interact and interact with people with disabilities. According to these scientists and also in research by Shatayeva et al., (2022) and Fernández-Batanero et al., (2022), the preparation of special teachers for the adoption of an inclusive approach in education involves the identification of the most effective technologies and methods for teaching teachers, taking into account the cultural, social, economic and political situation in a particular country, as well as the nature of the existing education system.

Foreign researchers Fasting & Breilid, (2022) address professional collaboration issues to improve inclusive education. In their research, inclusive education is coordinated, and implemented in kindergartens and schools, both at the organizational level and for children and adolescents. Consequently, the agreed working value of inclusive education establishes that it must cover different organizational levels, creating prerequisites for both educational policies and classroom practices. The authors (Blanton et al., 1997) presented their understanding of the characteristics and competencies necessary for special educators to effectively teach a diverse group of students in general education (Kim, 2011).

Interpersonal relationships and self-determination after graduating from high school for children with disabilities are the main factors (Malinovskiy et al., 2023; Argyropoulos & Halder 2019). The attitude of parents towards inclusive education and their perception of inclusive learning methods and resources are studied in their works (Paseka & Schwab, 2020; Florian & Camedda, 2020).

It is established that a positive attitude of teachers is necessary for success when placing children with disabilities in normal classes (Saloviita, 2018).

The problems of developing the professional competence of special teachers for work in special educational organizations, the idea of the connection of the totality of influences and

conditions of the educational environment with the development of the student's personality, his abilities for self-learning and self-development are considered in the works of near foreign scientists (Sergeev, 2004; Kovrigina, 2009; Gaidukevich, 2016).

The analysis of various approaches proposed in foreign theory allows us to consider the inclusive-oriented training of special teachers in the form of two interrelated aspects: the first, a special teacher as a practitioner ready for reflection, creatively selects the appropriate methods and techniques for each child, his educational opportunities personalizes, adapts the learning process as much as possible, and the second, the idea of a special teacher as the main acting person who organizes changes in the educational environment as a whole and society as a whole. This approach corresponds to the domestic views on the inclusive-oriented training of special teachers that a special teacher should "Contribute to the implementation of the principle of inclusiveness in education, advise teachers, parents of students or persons replacing them, on the use of special methods and methods of teaching and upbringing of assistance to children, provide special psychological and pedagogical assistance to children with special educational needs and work on the formation of a tolerant attitude of society to persons with special educational needs" (Typical Qualification characteristics, 2020).

*Purpose of study.* The solution to the problem of the formation of special educational needs skills has not yet found its final solution in both foreign and domestic theory and practice. Based on the research of foreign authors, the main competence of the reflective practice of a special teacher can be formulated as a "problem-solving activity", special attention is paid to the practice of reflection skills, as well as metacognitive and research skills as tools for personal and professional development. In this regard, reflexive practice in the activities of a special teacher should note the need to form the ability not only to reflect on their own experience but also to reflect on the difficulties and achievements of other colleagues. The article is devoted to the issues of the readiness of special teachers to work in the conditions of inclusive education.

**Materials and methods.** As part of the study, the following methods were used with us: analysis of foreign and domestic psychological and pedagogical literature on the topic of the study; generalization of foreign and domestic experience in organizing inclusive-oriented training of special teachers, interviewing administration and teachers of inclusive schools, mathematical and statistical methods: quantitative and qualitative processing of experimental data.

*Data collection tools.* Within the framework of the research project, a sociological study was conducted by a group of researchers at the Abai Kazakh National Pedagogical University to determine the requirements of inclusive organizations for the training of special teachers in preschool and school organizations. A qualitative method was chosen as the accumulation of information necessary for the study by conducting an interview.

*Data collection process.* Before starting the interview, a sociological toolkit (Hyde interview) was developed with the research team, consisting of key questions for revealing the research topic. To implement this goal, it is planned to organize interviews of the administration and teachers in 30 inclusive organizations in different regions of the Republic of Kazakhstan.

*Data analysis.* All the interviews conducted went through the transcription stage, and the finished texts were processed and analyzed in the QDA Miner 6 software.

*Participants.* The interview was attended by 36 managers, including 25 respondents – school principals and deputy principals, the remaining 11 – heads of kindergartens. In addition to the administration, 116 teachers of General Education Pre-School (52) and school (64) organizations took part in the interview. Their share in terms of location by region where the interview is held is shown in Figure 1.

The purpose of the interview was to identify the opinions of the administration and teachers of general education organizations on the level of training and formation of inclusive-oriented professional competencies of special teachers. Before the interview, it was found that children with disabilities study in all schools and kindergartens selected for the study, moreover, the priority form of integration of these children



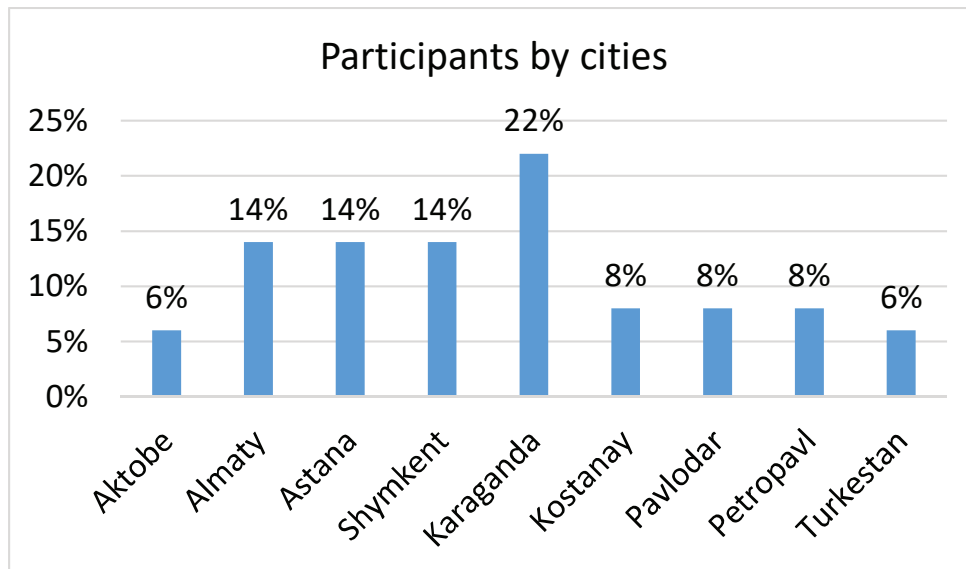


Figure 1. Share of Interview participants

was a complete form of inclusion in the general educational process, that is, joint (in one class) training, as well as home education of children with disabilities.

A general analysis of the responses of managers and teachers of kindergartens and schools shows the following observations and aspects of the integration of children with disabilities:

1. Specific needs: The answers confirm that special attention is paid to children with disabilities in preschool and school organizations. Various types of developmental disorders such as speech, vision, intelligence, mental development delays, and autism are found in all kindergartens and schools.

2. Individual curricula and plans: All preschool and school organizations have their groups or classes for children with disabilities, as well as offer special programs and curricula that take into account the specific needs of children.

3. Inclusive Education: answers support the ideas of inclusive education, in which children with disabilities are integrated into general education classes with special conditions and adapted teaching methods. It allows children with disabilities to learn with ordinary students and develop their social skills.

4. Home-schooling: Some children with disabilities receive home-schooling, but this is only considered as a temporary measure or if there is no way to attend a school organization due to surgery or injury.

5. Support and socialization: Heads of preschool and school organizations express their desire for successful socialization of children with disabilities. According to the administration and teachers, it is important to support the sections of circles and additional education, and their equal participation in classes and extracurricular activities to ensure the full development of these children.

So, for example, A. the director of the school said during an interview: "For several years in our school, all types of integration with children with disabilities have been implemented, which are: joint training, special training, home-schooling through participation in joint activities at school." In his response, the head of the kindergarten E. said: "We have 2 separate (special) groups for children with mental retardation. In other groups, joint education is carried out.

In general, it can be noted that in general education kindergartens and schools, various forms of inclusion of children with disabilities in the general education process are implemented. These forms of integration include inclusive classes, special classes, and home-schooling. different approaches are implemented in educational institutions to integrate children with disabilities to meet their individual needs.

It should be noted that the heads of preschool and school organizations recognize the presence of certain problems in the process of integrating children with disabilities into the

general educational process. The most frequent of them are conflicts between children, as well as between parents, attributing disorders in the behavior of homotypic and “special” children. The respondents noted the unwillingness of society to accept children with disabilities and their characteristics, as well as a weak connection between speech therapists, defectologists, and parents. The heads of schools and kindergartens also recommend strengthening seminars, training, and coaching to improve the work with parents to improve their legal literacy and involve them in work with children.

During the interview with the school administration, questions were asked about the state and quality of theoretical and methodological training of special teachers for work in general education schools and kindergartens, difficulties, and problems in the selection of personnel for special teachers. At the same time, the understanding of the administrative staff about what organizational and personal qualities a special teacher should have to work with children with disabilities in general education conditions, as well as the opinion on how to improve the process of training special teachers in higher educational institutions, is determined.

During the interview with the school administration, questions were asked about the presence of special teachers (defectologists) in the staff of the organization, as well as what specialization they have (speech therapist, sign language teacher, oligophrenopedagogue, typhlopedagogue, etc.). The opinion of the administration on the sufficiency and expediency of such a volume of special teachers (defectologists) for effective work with children with disabilities in an inclusive organization has been determined.

Analysing the answers of the respondents, it can be noted that while most schools have introduced the rate of a speech therapist, so far there is no full-time rate of a special teacher/defectologist. Recently, about 30% of schools have “opened” the rate of defectologists, which respondents consider insufficient, although they still need several rates of speech therapists, speech therapists, and assistant teachers. At the same time, representatives of the administration noted that even if special teachers (defectologists) are introduced in several doses, then it will be

somewhat difficult to find good specialists for these doses. The selection of specialists with a certain work experience and experience in working with a certain category of children is a difficult task for organizations.

The leaders noted that many young professionals quit due to low wages and difficulties in working with “special” children. It is noted that some specialists who come after the educational institution do not have sufficient qualifications to work with children with special needs. In some cases, it was also noted by the leaders that some special teachers experience emotional and psychological difficulties when working with children with disabilities. This can cause difficulties in finding and recruiting specialists. As one of the school principals noted, “Many schools of the city, region do not have specialists, specialists do not go to general education. For example, I had problems with the reception of special educators. They were intimidated by the fact that we are a resource center, and we have a lot of documents. Specialists are intimidated by work in general education classes. Special classes are understood and accepted by them in their activities. Many special teachers are afraid to work in a comprehensive school, this is probably due to the curricula, and they do not always know the “updated programs” well. They say that we were trained in defectology, but we do not know general education programs.

During interviews with respondents from among the school and kindergarten administrations, certain concerns were expressed that along with children with mental retardation, a category of children with mild mental disabilities is taught in their schools. The directors and heads of general education schools who were interviewed also spoke about the fact that subject teachers and primary school teachers who teach these children face significant difficulties when working with this category of children.

**Results and discussion.** Feedback was received from the heads and directors of kindergartens, and deputy directors of schools on what skills special teachers should have. In the course of interviews with general education teachers regarding the readiness of special teachers to work with children with disabilities, the level of expectations and requirements for professional

qualities was determined, which presupposes the presence of certain organizational skills, as well as personal qualities that a special teacher should possess. Thus, according to general education teachers, to effectively work with children with disabilities in the context of inclusive education, a special teacher needs well-established diagnostic skills to determine the direction of education suitable for the child. In their opinion, it is important to “feel the child inside out”, as well as Be Creative, and know modern innovative technologies and methods (Shin et al., 2023; Demir 2021). According to general education teachers, the necessary skills include the skills of maintaining relevant documentation, the skills of individual work with the child and collective work with the class as a whole, and the ability to resolve various conflict situations that arise in the learning process. According to the teacher of one of the Pavlodar schools, “for a special teacher in our school, first of all, hard work, responsibility, knowledge of their business is important. This is not only the presence of a diploma, it must be a person who is engaged in himself, in his own business. It should have its developments, methods, and techniques.”

To the list of personal qualities of a special teacher, the interviewers included love for children, sensitivity, patience, kindness, humanity, hard work, and perseverance.

Summing up the answers of heads and teachers of kindergartens and schools about the skills that are necessary for special teachers, the following main points can be distinguished:

**Competence:** A special teacher must have in-depth knowledge and skills in the field of special pedagogy. He must be well-trained and keep his knowledge up to date according to the latest advances in the field.

**Pedagogical ethics:** A special pedagogue must observe professional ethics, including confidentiality, respect for the rights of children and their parents, and compliance with professional standards and norms.

**Practical skills:** Professionals must have the practical skills necessary to work with children with disabilities. This may include the use of multimedia tools for conducting classes and various methods of correctional and developmental pedagogical activity.

**Ability to understand the child:** Special teachers should be able to understand and listen to a child with disabilities, establish emotional and psychological contact, and show respect and love for the child.

**Flexibility and adaptability:** Special educators must have a predisposition and flexibility to the behavior and various needs of children. This inserts the flexibility of communication, the ability to find an approach to each child and evaluate any achievements of the child.

**Communication skills:** Special teachers should be able to effectively communicate with children and parents, establish contacts, find common points of contact, and resolve conflict situations.

**Cooperation of children with their parents:** To achieve a positive result, it is necessary to be able to consult and communicate effectively with parents.

**Patience and emotional closeness:** Special educators should be patient and have a sense of empathy for the child. This will help them build a trusting relationship and provide emotional support.

**Love for children:** Professionals must feel true love for children and strive to help each child with their care and learning.

**Honesty and sincerity:** A dedicated teacher must be a reliable and honest specialist. It implies the correct performance of their duties with a high level of responsibility and honesty about children and their parents.

**Communication skills:** The special pedagogue must have good communication skills to establish effective communication with children, their parents, and other professionals. This includes listening, expressing yourself, and understandably explaining complex concepts.

**Emotional stability and stress resistance:** Working with children can be difficult and cause emotional tension, in this regard, the specialist pedagogue must have emotional stability and the ability to manage stress effectively to continue his work at a high level.

**Working in a team:** The ability to work in a team and find a common language with colleagues is an important professional skill for effective work and exchange of experience.

**Responsibility and self-esteem:** Special educators must be responsible and be able to truly

value themselves. They must critically evaluate their work and constantly improve themselves to successfully work with children (Saeed et al., 2023).

**Organizational skills:** Special teachers need to have the skills to effectively organize their activities, develop individual programs, and plan work. Specialists should be able to organize various events, cooperate with their parents and colleagues, and create and maintain a positive atmosphere in the educational process. The importance of this skill is evidenced by some statements from administration representatives and general education teachers. Thus, one of the school principals said: "...It is, first of all, the ability to organize their activities and the activities of the team. A special teacher should be able to model his activities, use innovative technologies, and be ready to interact in a team of like-minded people."

**Conclusion.** Based on the results of interviews with the administration and teachers of inclusive organizations in different regions of the Republic of Kazakhstan, it can be noted that, in their opinion, one of the main requirements for the training of special teachers is their practical readiness for work in the conditions of general education. Teachers and educators note that to effectively work with children with disabilities, future special teachers need to accumulate practical work experience, often visit general education schools and kindergartens, and undergo internships. They believe that this will allow them to better adapt their knowledge to the specific needs of disabled children who are educated with homotypic children.

Representatives of the administration and teachers make assumptions about the need for a wider specialization of special teachers, emphasize the importance of open interaction and cooperation between universities and general education schools, propose to introduce additional academic disciplines and elective courses into curricula that will help students master modern

diagnostic methods, innovative technologies and adapt to different needs of children. The respondents note the need for psychological knowledge and communication skills of special teachers, who believe that it is important for specialists to be ready to work with a wide variety of special educational needs in children and take into account their characteristics. The opinion of the administration and teachers of general education preschool and school organizations indicates the need for appropriate pedagogical and methodological knowledge, as well as the established ability to work in an inclusive environment, the ability to analyze the behavior and needs of children, predict their reactions and acquire psychological skills.

The conducted study indicates the need to strengthen practical and psychological training and provide guidance and mentoring by the most competent, experienced specialists to provide psychological support and methodological assistance to novice special teachers. Organization of comprehensive and systematic fundamental and applied research to determine the professional competencies of these specialists in New conditions (inclusive education, early development of children, education of children with severe and complex disorders, autism, etc.) as possible solutions to the problems of insufficient inclusive-oriented training of special teachers in Kazakhstani universities and methods of their continuous training in universities, as well as after graduation, strengthening control over the quality of scientific research) development of scientific-based educational and methodological support, organization of regular professional development of university teachers who train special teachers, and much more.

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## THE DEVELOPMENT OF DIGITAL COMPETENCIES AMONG TEACHERS IN THE CONTEXT OF TRANSITION TO THE «UNIVERSITY 4.0»

### *Abstract*

The article is devoted to describing the digital skills required of pedagogical employees to function in the contemporary educational environment. Also, the article discusses potential methods for developing prospective teachers' digital capabilities in a university setting through the creation of contemporary, pertinent, and in-depth content as well as instructional, methodological, and informational assistance.

The most popular methods for structuring the competency model of job candidates for Industry 4.0, including behavioral and digital skills, are covered in the article. On the basis of an analysis of the likelihood of achieving particular performance indicators in the sphere of vocational education, the limitations in the growth of graduates' digital capabilities were demonstrated. Different interpretations of the traits of digital competences in Kazakhstan and other countries are offered to create a cohesive approach. The degree of digital literacy of contemporary future teachers was evaluated to examine the viability of developing a digital learning environment at universities.

The influence of the digital economy on the development of a set of key abilities and the education of experts in demand in contemporary society is what gives this piece its relevance. The majority of models and frameworks are concerned with evaluating university teachers' level of digital competences, which are a collection of knowledge, abilities, and attitudes required for a teacher to use technology effectively. The impact of the digital economy on the development of a set of core competences and the education of experts in demand in the contemporary world.

*Keywords:* digital competencies, successful pedagogical activity, modern educational space, ICT competencies.

**Introduction.** Nearly every nation in the globe is currently impacted by the digitalization process. Each nation sets its own priorities for digital development at the same time. National digitization plans are now being implemented more than 15 different nations. China, Singapore, New Zealand, South Korea, and Denmark are the top nations in the world when it comes to