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Preparing a teacher for professional adaptation in an inclusive educational environment

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Abstract

Relevance. Over the past decade, the solution of the issue of formation of the teacher's readiness for professional adaptation in an inclusive environment in educational institutions of Kazakhstan has become one of the most important social problems of the society of the state. In this context, it becomes relevant to solve the problems of implementing the components of the teacher's readiness and the pedagogical conditions for his adaptation in an inclusive educational environment, as well as increasing the level of their socio-pedagogical competence.

Purpose. The purpose of the article is to substantiate the methodology for preparing a teacher for professional adaptation in an inclusive educational environment in the context of organizing the educational process in educational institutions of Kazakhstan.

Methodology. The methodological approach of the experimental study is based on the analysis of literary sources for comparison and comparison of scientists' views on the problem under study, systematization and generalization of theoretical data, comparative analysis; empirical: narrative methods (writing essays and mini works), the method of expert assessments, questioning, testing, conversation, observation, questioning, generalization of pedagogical experience, solving socio-pedagogical situations, generating ideas, presentations, structural and logical schemes; diagnostic (analysis, questioning); pedagogical experiment (stating, forming and control).

Results. After conducting an experimental study, promising directions for improving the methodology for developing the teacher's readiness for professional adaptation in an inclusive environment in educational institutions of Kazakhstan were formed.

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Conclusions. The practical value of the work lies in the training of a specialist who is able to realize the creation of a favourable socio-pedagogical inclusive educational environment for organizing and implementing the learning process for inclusive applicants for education in educational institutions of Kazakhstan.

Keywords: index of inclusion; socio-pedagogical competence; readiness components; pedagogical conditions; educational institutions.

Introduction

The educational policy of numerous countries of the world, in particular Kazakhstan, inclusive education is determined by one of the main priority areas for updating the education system at the state level and the formation of a teacher's readiness to work in an inclusive educational environment, improving the socialization system and teaching the younger generation [1; 2].

That is why the purpose of the study is to define the concept of "socio-pedagogical competence", to solve the problems of forming a teacher's readiness for professional adaptation in an inclusive environment in educational institutions of Kazakhstan, carried out through the implementation of readiness components, namely: motivational, cognitive, reflective and pedagogical conditions; increasing the level of social pedagogical competence of teachers and experimental verification of the proposed methodology. To this end, with the assistance of the University of Minnesota, the University of Arizona, from December 1, 2016 to December 31, 2017, the ADA Anniversary Fellowship Program in Inclusive Education has already been implemented. The goals and objectives of the project were to introduce inclusive education methods in Kazakhstan, Ukraine, Armenia, and India [3-5].

Based on the experience gained in using such projects and methods, the introduction of an experimental methodology to ensure the readiness of a teacher for professional adaptation in an inclusive educational environment at the L.N. Gumilyov Eurasian National University (Astana) will certainly affect the provision of high-quality training for applicants for education with special needs. That is why modern educational institutions in Kazakhstan should be provided with such specialists who can implement student-centred and competence-based approaches in education when working in an inclusive environment. The problem of forming a teacher's readiness for professional adaptation in an inclusive environment in educational institutions of Kazakhstan is relevant and requires a thorough study. After all, the vast majority of teaching staff in educational institutions in Kazakhstan experience significant difficulties in working with the inclusive part of students and cannot meet their educational needs [6-8].

In particular, in the education system of Kazakhstan, according to O.Y. Akyar et al. [9], there is an insufficiently established system for preparing teachers for professional adaptation in an inclusive environment. Therefore, the process of including a teacher in an inclusive educational process causes a lot of contradictions and misunderstandings, mainly not only due to the teacher's lack of awareness of the methodology of teaching inclusive students, but also the unwillingness to work with them and contribute to the disclosure and development of potential abilities and opportunities. The authors of this article support the opinion of T. Pyatakova [10], who proposes

specifying the components and criteria for a teacher's readiness for professional adaptation in an inclusive educational environment: a value attitude to professional activity, inclusive competence, self-improvement, self-reflection and self-management. E. Avramidis et al. [11] believe that inclusive competence occupies an important place in the formation of a competitive specialist and is a set of interrelated components: motivational, cognitive, operational and reflective.

Based on the Concept for the Development of Inclusive Education, the UN Convention on the Rights of the Child, the Salamanca Declaration, the National Human Rights Strategy, the process of developing a teacher's readiness for professional adaptation in an inclusive educational environment has become a priority in the educational policy of Kazakhstan. The realities of our time require specially trained teachers capable of working in an inclusive environment, with a stable motivation to work with this category of education seekers [12; 13]. That is why the problem of developing the readiness of teachers for professional adaptation in an inclusive environment is an extremely important tool in working with applicants for education with special educational needs [14].

In the context of modern Kazakhstani society, inclusive education is one of the priorities for the development of Kazakhstan and the factors for reforming its educational industry. Therefore, the problems of improving the theory and methods of preparing a teacher for professional adaptation in an inclusive educational environment are relevant.

Materials and Methods

The main methods in the process of experimental research were aimed at studying the problems of forming the teacher's readiness for professional adaptation in an inclusive environment in educational institutions of Kazakhstan, which included the development of a methodology for creating a favourable inclusive educational environment, including three components of the teacher's readiness: motivational, cognitive and reflective, the creation of a socio-cultural educational environment in an educational institution, the formation of socio-cultural content focused on designing the volume, structure and direction of the socio-inclusive content of preparing a teacher for professional adaptation in an inclusive educational environment, creating a practical-activity environment.

The methodology for the formation of a teacher's readiness for professional adaptation in an inclusive environment provided for the use of effective methods for creating a favourable inclusive educational environment in the educational process in educational institutions of Kazakhstan. Such methods included, in particular, the use of lectures (problematic, multimedia, lectures-press conferences), the use of innovative technologies (method

of projects, problem-based and contextual learning); involvement of teachers in research work (individual tasks, essays, abstracts), speaking at conferences and seminars, work in circles and problem groups; involvement in practical training in inclusive educational institutions; method of expert assessments, questioning, testing, conversation, observation, survey, generalization of pedagogical experience, solution of socio-pedagogical situations, technology of generating ideas, presentations, structural and logical schemes.

The experimental study was carried out taking into account a carefully selected theoretical basis for further research. The study was conducted at the L.N. Gumilyov Eurasian National University (Astana). In order to ensure the representativeness and reliability of the sample, the features of the formation of the control and experimental groups, namely age and gender, were determined. The formation of the control-research array was carried out by the method of pairwise selection. The condition was taken into account that at the end of the selection the size of the experimental group met the requirements of representativeness. The sample consisted of 80 teachers. The control group included 38 respondents, and the experimental group included 42 respondents, including 34 women and 46 men with work experience from 5 to 30 years.

At the ascertaining stage of the study, a study and analysis of the literature base on the research problem was carried out: synthesis methods; classification: systematization; modeling and generalization of the methodology for the formation of a teacher's readiness for professional adaptation in an inclusive educational environment, checking the level of readiness of a teacher before working in an inclusive educational environment according to the components: motivational, cognitive and reflective. The main problems of formation of the teacher's readiness for professional adaptation in an inclusive environment in educational institutions of Kazakhstan are identified, which can be effectively and efficiently solved with the help of the practical use of this technique. The formation of the level of the cognitive component of the teacher's readiness for professional adaptation in an inclusive environment was carried out using a questionnaire, the methodology for determining empathic abilities according to Boyko, A. Rean's questionnaire and the "Social Intelligence" test according to J. Gilford.

At the formative stage of the experiment, an analytical study of the effectiveness of pedagogical conditions for the formation of a teacher's readiness for professional adaptation in an inclusive environment was carried out: the creation of a sociocultural educational environment in an educational institution, the formation of a sociocultural content focused on designing the volume, structure and orientation of adaptation in an inclusive educational environment, the creation of a practical activity environment. To obtain the results at this stage, the method of questioning, questioning, testing was used, the method for determining empathic abilities according to Boyko, the "Goodwill Scale" method (according to the Campbell scale), the "Value orientations" method of M. Rokeach were used. At the control stage of the experiment, the analysis of the obtained results of their generalization was carried out and conclusions were drawn.

Results

Today, inclusion is beginning to take an important place in the education system of Kazakhstan. Ensuring a favourable inclusive educational environment in the education system of Kazakhstan is a new way to improve the educational industry. In the process of studying the experience of foreign scientists in introducing inclusion into the national education system, it can be argued that it is necessary to train a teacher who is able to adapt to teaching inclusive youth. However, the process of introducing inclusive education in educational institutions of Kazakhstan requires their reorganization, which must be carried out through changes in culture, policy and practice by creating a favourable inclusive educational environment and the availability of teaching staff capable of working in such an environment. A teacher, working in an inclusive educational environment, must perceive inclusive education seekers without distinguishing them from others; involve in common activities by performing multilevel tasks, involve applicants for education in collective forms of training and group problem solving – games, joint projects, laboratory research, etc. [15].

One of the most important ways to form the readiness of a teacher for professional adaptation in an inclusive educational environment is the implementation of the components of their readiness outlined in the process of theoretical research, namely: motivational, cognitive and reflective. In the process of forming the readiness of teachers for professional adaptation in an inclusive educational environment, a set of skills that teachers should have has been identified [16]:

- 1. Methodical skills. Their essence lies in identifying the skill of organizing and planning the educational process for inclusive applicants for education, using innovative technologies, health-preserving teaching methods, conducting bio-adequate classes, developing a curriculum for inclusive applicants for education, the ability to use art therapy techniques.
- 2. Prognostic skills. The ability to predict the final result, the implementation of the activation of cognitive processes, the creation of corrective conditions for education, training, development and social adaptation of inclusive applicants for education.
- 3. Information skills. Provide the ability to process an inclusive education seeker who is influenced, interpret educational material for work in an inclusive environment; the use of modern information technologies of education to obtain the relevant competencies by students.
- 4. Motivational skills. The implementation of the formation of positive motivation to work in an inclusive environment, a sense of success, confidence in a successful future, goodwill, responsiveness, balance, tolerance, the desire to create success in learning.
- 5. Communication skills. Consist in the development of the pedagogical skills of the teacher in cooperation with inclusive applicants for education.
- 6. Preventive skills. Prevention and resolution of conflict situations arising in an inclusive environment.
- 7. Social rehabilitation skills. The ability to support inclusive education seekers during their socialization and adaptation to new conditions, the ability to interact with the outside world, the manifestation of empathy.

- 8. Rehabilitation and animation skills. Providing conditions conducive to the resumption of cooperation in society, the qualitative organization of leisure activities, the organization of boat trips, hikes.
- 9. Correctional and developmental skills. The ability to organize the development of the cognitive sphere of inclusive applicants for education; the ability to use the methodology, techniques, methods of training, education, diagnosis, correction, psychophysical development.
- 10. Evaluative and corrective skills. The ability to assess the development of the cognitive-activity component of inclusive education seekers and conduct appropriate correction.

To implement these components of the teacher's readiness for professional adaptation in an inclusive educational environment, pedagogical conditions are presented, namely:

- 1. Creation of a socio-cultural educational environment in an educational institution.
- 2. Formation of the socio-cultural content of the teacher's preparation for professional adaptation in an inclusive educational environment.
 - 3. Creation of a practical-activity environment.

Certain components of a teacher's readiness for professional adaptation in an inclusive educational environment and organizational and pedagogical conditions form the basis for the development of the necessary methodological tools, which are used to diagnose the inclusive competence of teachers. The sample size was 80 teachers of the L.N. Gumilyov Eurasian National University (Astana). The control group included 38 respondents, and the experimental group included 42 respondents, including 34 women and 46 men with work experience from 5 to 30 years. To test the motivational component of the teacher's readiness for professional adaptation in an inclusive educational environment, the authors of this article found out the teacher's motivation to organize and conduct educational and educational work with inclusive applicants for education, the presence of positive emotional incentives for them to carry out such activities. To diagnose the outlined component of readiness, the methodology "Diagnosis of personality for motivation to success" was used. Based on the results of the survey, it was determined that, in general, the

motivation of teachers is at an average level, namely, a high level -21%, an average level -42% and a low level -37%.

The authors of this study carried out diagnostics of the cognitive component of readiness by checking whether teachers have theoretical, methodological technological competencies that allow them to adapt to work in an inclusive educational environment. The formation of the level of the cognitive component of the teacher's readiness for professional adaptation in an inclusive environment was carried out using a questionnaire, A. Rean's questionnaire and the "Social Intelligence" test according to J. Gilford. According to the results of the data obtained from the survey, it was found that the level of preparation of a teacher for work in an inclusive environment in terms of cognitive components is at a low level. Thus, only 21.3% of teachers out of 80 respondents believe that their level of training is at a high level; 38.3% of respondents consider their training to be average; 37.3% think they are not ready to partner with inclusive education seekers, and 3.1% were unable to identify their background. The formation of the reflective component of the teacher's readiness for professional adaptation in an inclusive educational environment was determined using a survey.

According to the results of the data obtained, 38.2% of teachers are at a low level in the pursuit of selfdevelopment, do not have clearly formulated goals for the implementation of their self-development and selfimprovement, have insufficient cognitive and professional motivation to achieve success, etc. However, 27.9% of respondents showed a steady desire for self-development, which manifested itself in the desire to develop a personal program for professional self-development (passing refresher courses). It has been established that the orientation towards self-development in 33.9% of teachers is at a low level. These are teachers aimed at professional self-development, but who did not have an appropriate program of their actions. The results of diagnosing the teacher's readiness for professional adaptation in an educational environment in motivational, cognitive and reflective components at the ascertaining stage of the study are shown in Figure 1.

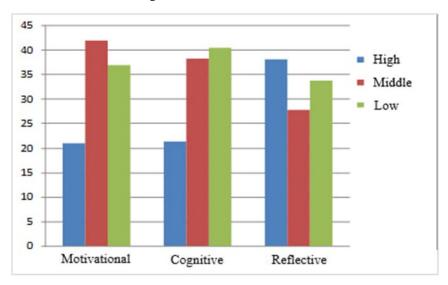


Figure 1. The results of diagnosing the teacher's readiness for professional adaptation in an inclusive educational environment at the ascertaining stage

At the formative stage of the study, the improvement of the theoretical and practical line of formation of the teacher's readiness for professional adaptation in an inclusive educational environment was carried out through the formation of the first pedagogical condition - the creation of a socio-cultural educational environment in an educational institution. Theoretical knowledge and practical skills constitute the principle of unity, namely the formation of the cognitive and activity components of readiness. The implementation of the pedagogical conditions certainly has an impact on the formation of social, personal and professionally important qualities in teachers necessary for professional adaptation in an inclusive educational environment, which will create comfortable conditions in an inclusive team. It is necessary to select methods of professional training of teachers for professional adaptation in an inclusive educational environment that contribute to the development of sociopedagogical competence. It is planned to implement the second pedagogical condition by the following methods: analysis of educational documentation, the use of narrative methods (essays, mini works), the method of participant observation, a round table, the use of situational learning, the technology of generating ideas, presentations, structural-logical diagrams, the method of analysing sociopedagogical situations, author's questioning, conducting conversations, explanations, resolving socio-pedagogical situations, and others that can be used in the future when working with inclusive education seekers [17].

The data obtained from the test results give grounds to assert that 32.4% of the respondents turned out to be at a high level, 41.2% of the respondents reached the average level, and only 26.4% of the respondents remained at a low level. The implementation of the second pedagogical condition - the formation of the socio-cultural content of the teacher's preparation for professional adaptation in an inclusive educational environment – is designed to create a holistic pedagogical process focused on the formation of the socio-inclusive content of the teacher's preparation for adaptation in an inclusive educational environment, the use of innovative teaching methods. In the course of the pilot study, advanced training courses were introduced to ensure the formation of the socio-pedagogical competence of teachers. The implementation of the pedagogical conditions was carried out in the process of passing by

teachers of advanced training courses, during which they were asked to develop lecture classes (problem, multimedia, lectures, press conferences), the use of innovative teaching technologies (project method, problem-based and contextual learning); teachers joined the research work (performing individual tasks, essays and abstracts); participated in conferences and seminars, circles and problem groups; implementation of practical training in inclusive educational institutions; creation by teachers of educational and methodological support.

Based on the results of the implementation of the pedagogical condition, the respondents developed the skills to use innovative methods that allow applicants to develop cognitive, emotional and conative spheres of personality in an inclusive group [18; 19]. The data obtained indicate that 39.6% of respondents were at a high level, 44.1% – at an average level, and 16.3% – at a low level. The implementation of the third pedagogical condition – the creation of a practical-activity environment - was carried out as part of an internship in line with inclusive education, work in a problem group, the methodology for determining empathic abilities according to Boyko, the methodology "Scale of benevolence" (on the Campbell scale), the methodology "Value orientations" of M. Rokeach were used. The pedagogical condition is focused on providing teachers with motivation for professional activities in an inclusive environment of an educational institution.

In the process of preparing a teacher for professional adaptation in an inclusive educational environment, teachers develop and form a professional orientation of the individual, which is manifested in a positive attitude towards the profession, the desire for improvement, the ability to perform socio-pedagogical tasks of various levels when working in an inclusive environment. According to the results of the survey, the level of formation of the third pedagogical condition was determined that 37.9% of respondents reached a high level of readiness for professional adaptation in an inclusive educational environment, 46.1% were at an average level, and the rest - 16% at a low level of this readiness. Thus, the results of diagnosing a teacher's readiness for professional adaptation in an inclusive educational environment for three pedagogical conditions are presented at the formative stage of the study in Figure 2.

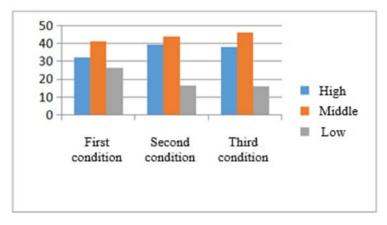


Figure 2. The results of diagnosing the teacher's readiness for professional adaptation in an inclusive educational environment at the formative stage of the experiment

These pedagogical conditions are designated by the authors of this article as the basis for the formation of a methodology for preparing a teacher for professional adaptation in an inclusive educational environment in educational institutions of Kazakhstan, since they allow a wider influence on the personality of a teacher, develop his internal motivation, inclusive competence. On the basis of the experimental studies obtained, it can be argued that the level of formation of the socio-pedagogical competence of a teacher depends on his ability to adapt modern teaching technologies to an inclusive educational environment and learn to work in it. The ability to apply a creative approach is important, which manifests itself in the original solution of pedagogical problems, improvisation, impromptu.

Discussion

The current stage of development of inclusive education in Kazakhstan requires scientists to search for new means, content, forms and methods of preparing a teacher for professional adaptation in an inclusive educational environment. In pedagogical practice, there are contradictions on improving the preparation of a teacher for work in an inclusive environment, which are resolved in the process of scientific research, namely:

- between the existing need on the part of the state for the development of inclusive education in educational institutions of Kazakhstan and the lack of specialists who are ready to work in this direction;
- among the public needs for the training of a teacher who is able to adapt in an inclusive environment and the lack of thorough training of such teachers;
- between the need for a global modernization of education based on the introduction of inclusive trends in education and the lack of socially inclusive content in teacher training.

The ADA Anniversary Fellowship Program in Inclusive Education was introduced with the aim of developing inclusive education and exchanging foreign experience, introducing the latest methods of teaching inclusive education seekers. Among the partners in the implementation of the program from Kazakhstan was Nazarbayev University (Astana, Kazakhstan) and BILIM Central Asia Education Center (Almaty, Kazakhstan). As a result of the project implementation, the following results were achieved: networks were created between schools and institutions of higher education that specialize in inclusive education, departments where teachers were trained to work with inclusive education seekers, programs were implemented to exchange experiences during internships in the participating countries, organization was provided seminars of a professional direction, reports were developed and communities of Inclusive Education were created [20; 21].

According to L. Barton [22], the problem of the development of socio-pedagogical competence is relevant and requires thorough research. The authors of this article support the views of the scientist and believe that a significant number of teachers in higher educational institutions in Kazakhstan experience significant difficulties in working with the inclusive part of students

and cannot meet their educational needs. The concept of "inclusive education" should be understood as the possibility of equal access for education seekers to quality education using individual teaching methods, taking into account their inclusive features in educational and cognitive activities [23-25]. In the process of experimental research, it was proved that for the successful implementation of the educational model of preparing a teacher for professional adaptation in an inclusive environment, educational, social and physical inclusion must be harmonized. Physical inclusion consists in creating a barrier-free environment and adapting to the educational needs of all applicants for education (easy access to the building, arrangement of furniture). Educational inclusion is the development of educational competencies by applicants for education established by educational standards in various ways using differentiation methods, cooperative learning. Social inclusion is the creation of a favourable educational environment by providing the following factors: a friendly atmosphere, principles and practices that encourage the establishment of friendships, care [26; 27].

The authors of this study interpret the concept of "professional readiness" as a decisive component of a teacher's rapid adaptation to working conditions, his further professional improvement and advanced training [28-30]. The authors of this study also define "teacher's readiness" as a manifestation of an individual approach to education applicants; implementation of simulation classes with inclusive education seekers; use of variability in the learning process. The process of preparing a teacher for professional adaptation in an inclusive educational environment is understood as a complex and multifaceted component in the system of holistic teacher training, which is subject to the sole goal of an educational institution, which will ensure a high level of inclusive competence formation among teachers for professional adaptation in an educational institution [31; 32]. According to the results of research by P.W. Kilgour et al. [33], the readiness of a teacher in the work of inclusive education is information awareness, pedagogical technologies, the basics of psychology and correctional pedagogy.

According to Z.M. Ozhibayeva and Nurmuhanbetova [34], the concept of a teacher's readiness to work in an inclusive environment should be understood as the value orientation of the individual, her motivation. the presence of pedagogical optimism, tolerance, didactic knowledge and methodological skills. Exploring the scientific works of S. Thalheim et al. [35], the work proves that today the introduction of inclusive education in educational institutions of Kazakhstan acquires a special expanded context. As a result, two approaches have been identified, namely: functional and personal. According to both approaches, the theoretical aspect of a teacher's readiness for professional adaptation in an inclusive educational environment is necessarily associated with the result of a teacher's special training and is a prerequisite for achieving success in his professional activity.

The authors of this study also support scientific and pedagogical research of E. Efthymiou and A. Kington [36],

and the authors of this article believe that preparing a teacher for professional adaptation in an inclusive educational environment is a holistic process of specialized training in higher education, continuous education of a teacher during professional activity the result of which is the acquisition of socio-pedagogical and inclusive competence, creative development for work in an inclusive environment. Z.S. Wilson et al. [37] believe that professional readiness is based on professional training, which consists of five components: motivational, orientational-cognitive-evaluative, emotional-volitional, operational-effective, installation-behavioral. In the structure of readiness for pedagogical activity, D.E. Marcial et al. [38] see the following components of readiness: motivational, orientational, cognitiveoperational, emotional-volitional, psychophysiological, evaluative. Based on the analysis of the works of foreign scientists, the following components of a teacher's readiness for professional adaptation in an inclusive educational environment have been identified – cognitive, activity and reflective.

The individual trajectory of the formation of a teacher's social pedagogical competence for professional adaptation in an inclusive educational environment is considered through:

- introduction of refresher courses for teachers;
- the introduction of internships and the use of innovative teaching technologies for teachers during internships, in particular innovative teaching technologies that can be used in the future while working in an inclusive environment:
 - research work of teachers;
- practical training in inclusive educational institutions.

To implement the outlined components of the teacher's readiness for professional adaptation in an inclusive educational environment, pedagogical conditions are defined, namely:

- 1. Creation of a socio-cultural educational environment in an educational institution. The indicated condition ensures the formation of both theoretical and practical skills.
- 2. Formation of the socio-cultural content of the teacher's preparation for professional adaptation in an inclusive educational environment, the selection of traditional and innovative teaching methods and technologies.
- 3. Creation of practical activity environment. A pedagogical condition aimed at developing the motivational component necessary for working in an inclusive environment.

Thus, ensuring the readiness of a teacher for professional adaptation in an inclusive educational environment in educational institutions of Kazakhstan is one of the important principles of humanization of the entire education system as a priority area of state policy that provides the necessary conditions for obtaining a quality education. Ensuring a high level of formation of socio-pedagogical competence will allow the teacher to provide the educational process for all its participants.

In the course of the study, the concepts of "inclusive education", "professional readiness", "readiness of a teacher", "the process of preparing a teacher for professional adaptation in an inclusive educational environment", "preparing a teacher for professional adaptation in an inclusive educational environment" were defined. Promising directions for improving the process of forming the teacher's readiness for professional adaptation in an inclusive educational environment in educational institutions of Kazakhstan have been formed.

The study was conducted in order to test the methodology and certain components of the formation of the teacher's readiness for professional adaptation in an inclusive educational environment: motivational, cognitive and reflective. In the process of conducting the ascertaining stage of the study, it was found that a significant number of the interviewed teachers are not sufficiently able to adapt in an inclusive environment. This trend requires the creation of the necessary pedagogical conditions for the formation of a teacher's readiness for professional adaptation in an inclusive environment: the creation of a socio-cultural educational environment in an educational institution, the formation of a socio-cultural content focused on designing the volume, structure and orientation of the socio-inclusive content of a teacher's preparation for the profession environment, the creation of a practical activity environment. However, the generalized data of the results of the moulding stage of the experiment after the introduction of the proposed methodology allow to draw conclusions about the effectiveness of the introduced methodological materials.

Thus, the development and implementation of a methodology for the formation of a teacher's readiness for professional adaptation in an inclusive educational environment in educational institutions of Kazakhstan. A promising direction for further research is the consideration of modern international-level programs for teachers in order to increase their awareness of the training of applicants for education with special needs. Scientific research, as well as the conclusions and prospects for further research formulated on its basis, can be used in the future as an effective scientific basis for improving the training of teachers to work with inclusive youth, using the experience of foreign countries.

In this sense, the policy of educational institutions of Kazakhstan should be aimed at updating the methodology for training future teachers, starting with technical schools, colleges, colleges, institutions of higher education. Providing a virtual educational space based on the development of methodological materials for working with inclusive education seekers, the development of simulators for laboratory work, the development of new and improvement of existing methodological materials in the disciplines. Prospects for further research and research are considered in the participation of teachers of Kazakhstan in international advanced training programs and familiarization with the experience of foreign colleagues in working with inclusive education seekers.

Acknowledgements
None.
Conflict of Interest
None.

Conclusions

References

- [1] Szluz B. *Prospects for social work in school. Teacher education in the face of school changes.* Rzeszow: Publishing House of the University of Rzeszow; 2007.
- [2] Spytska L. Conceptual basis for creating a program to overcome the current fears of modern youth. *Youth Voice J.* 2023;13.
- [3] Cavite FAM, Marcial DE. Correlates of learning satisfaction and learning engagement in distance online education. *Info Tech Learn Tools*. 2022;90(4):118-135.
- [4] Kulakhmet M, Hajrullina A, Oleksiuk N, Tvrdon M, Protas O, Ragozina V. Professional Training of Managers in the Information and Educational Environment of Universities. *J Higher Educ Policy Leadership Stud.* 2022;3(2):53-70.
- [5] Kozhasheva G, Maltekbassov M, Baidildinov T, Sakhipov A, Gavrilova Y. Distance learning technologies with blockchain elements in the system of continuous education. *Cypriot J Educ Sci.* 2022;17(9):3277-3288.
- [6] Booth T, Nes K, Stromstad M. Developing inclusive teacher education. London: Routledge; 2003.
- [7] Abylkassymova AE, Kalybekova ZA, Zhadrayeva LU, Tuyakov YA, Iliyassova GB. Theoretical foundations of the professional direction of teaching mathematics course in higher educational institutions. *Glob Stochastic Analys.* 2021;8(2):311-322.
- [8] Kerimkhulle S, Kerimkulov Z, Aitkozha Z, Saliyeva A, Taberkhan R, Adalbek A. The estimate one-two-sided confidence intervals for mean of spectral reflectance of the vegetation. *J Phys: Conf Ser.* 2022;2388(1):012160.
- [9] Akyar OY, Demirhan G, Oyelere SS, Flores M, Jauregui VC. Digital storytelling in teacher education for inclusion. In: *World Conference on Information Systems and Technologies "Trends and Innovations in Information Systems and Technologies"* (pp. 367-376). Cham: Springer; 2020.
- [10] Pyatakova T. Development of inclusive teacher competence: The Swiss experience. *Stud Compar Educ*. 2013;1. https://doi.org/10.31499/2306-5532.1.2012.18691
- [11] Avramidis E, Bayliss P, Burden R. Student teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school. *Teachin Teach Educ*. 2000;16(3):277-293.
- [12] Ongarbayeva AD, Kaldybaev SK, Kasymaliev MU, Kozhasheva GO, Yermekova NS. Methodology of preparing future computer science teachers to create electronic educational resources. *World J Educ Tech: Curr Issues*. 2021;13(3):386-396.
- [13] Sun J, Bieliatynskyi A, Krayushkina K, Akmaldinova O. Research of properties on graphite conductive slag in asphalt concrete. *E3S Web Conf.* 2020;175:11015.
- [14] Rusiecki M. Good as the basic category of upbringing children at an early school age. A student in a modern school. Problems of early childhood education reform. Kielce: Publishing house of the Swietokrzyska Academy; 2005.
- [15] Devare M. Amalgamation of indirect gamification into development and operations (DEVOPS) course teaching. *Info Techn Learn Tools*. 2022;87(1):124-138.
- [16] Jurado E, Fonseca D, Coderch J, Canaleta X. Social STEAM learning at an early age with robotic platforms: A case study in four schools in Spain. *Sens.* 2020;20(13):3698.
- [17] Kalynovska IS. Preparation of future practical psychologists to work in the conditions of inclusive education of students of general educational institutions. Uman: Pavlo Tychyna Uman State Pedagogical University; 2020.
- [18] Kovalchuk V, Marynchenko I, Sherudylo A, Vovk B, Samus T, Soroka V. Implementation of the learning model based on the results of future vocational teachers' professional training. *AD ALTA J Interdiscip Res.* 2021;11(2):214-219.
- [19] Maraj D, Maraj A, Hajzeraj A. Application interface for gesture recognition with Kinect sensor. In: 2016 IEEE International Conference on Knowledge Engineering and Applications, ICKEA 2016 (pp. 98-102). Singapore: Institute of Electrical and Electronics Engineers; 2016. DOI: 10.1109/ICKEA.2016.7803000
- [20] Mitchell D, Sutherland D. What really works in special and inclusive education. Using evidence-based strategies. London: Routledge; 2020.
- [21] Udych ZI. Resource component of inclusive competence of the teacher in general education establishment. In: *Collection of Scientific Works "Pedagogical Sciences"* (pp. 137-143). Kherson: Helvetica; 2019.
- [22] Barton L. *Inclusive education and teacher education: A basis for hope or a discourse of delusion.* London: University of London; 2003.
- [23] Sansyzbayeva A, Daiyrbekov S, Zhadrayeva L, Kadirbayeva R, Sansyzbayev A. Methods of teaching school students to solve systems of equations and inequalities in the conditions of digitalisation of education. *Cypr J Educ Sci.* 2022;17(8):2680-2691.
- [24] Mohanraj J, Yuen KO, Eshvary P, Sangwan A, Thasya A, Sahlan NS, Ashikin N, Kaur H. Exploring the Digital Divide between Pre-clinical Teachers and Students in an Integrated Medical Curriculum from a Malaysian Private University. *Univ J Educ Res.* 2019;7(12):1-9.
- [25] Latka K, Kolodziej W, Domisiewicz K, Pawus D, Olbrycht T, Niedzwiecki M, Zaczynski A, Latka D. Outpatient Spine Procedures in Poland: Clinical Outcomes, Safety, Complications, and Technical Insights into an Ambulatory Spine Surgery Center. *Healthcare (Switz)*. 2023;11(22):2944.
- [26] Spytska L. Social-psychological peculiarities of youth with delinquent behavior. Youth Voice J. 2023;2:9-17.

- [27] Paton BE, Chernets AV, Marinsky GS, Korzhik VN, Petrov VS. Prospects of using plasma technologies for disposal and recycling of medical and other hazardous waste. Part 1. *Probl Spetsial Electr.* 2005;(3):49-57.
- [28] Zimny J. Upbringing as a system of values for the sake of the child's welfare. Education at the beginning of the 21st century. Kyiv: Ruhomberok; 2012.
- [29] Lavrentieva OO, Rybalko LM, Tsys OO, Uchitel AD. Theoretical and methodical aspects of the organization of students' independent study activities together with the use of ICT and tools. CEUR Workshop Proceed. 2019;2433:102-125.
- [30] Korzhyk V, Illiashenko E, Khaskin V, Peleshenko S, Perepychay A. Forecasting the results of hybrid laser-plasma cutting of carbon steel. *East-Eur J Enter Tech.* 2020;2(1-104):6-15.
- [31] Abiltarova E, Poberezhets H, Androshchuk I, Burak V. The Methods for Improving Vocational Education and Training in Modern Conditions. *J Higher Educ Theory Pract*. 2022;22(12):203-211.
- [32] Masanovic B, Gardasevic J, Arifi F. Relationship between foot length measurements and standing height: A prospective regional study among adolescents in southern region of Kosovo. *Sport Mont.* 2018;16(2):27-31.
- [33] Kilgour PW, Reynaud D, Northcote MT, Shields M. Role-playing as a tool to facilitate learning, self-reflection and social awareness in teacher education. *Int J Innov Interdiscip Res.* 2015;2(4):8-20.
- [34] Ozhibayeva ZM, Nurmuhanbetova NN. Use of STEM technologies as a way of increasing the motivation of students in chemistry lessons in the conditions of education update in the Republic of Kazakhstan. *Sci Atlas*. 2021;4:52-59.
- [35] Thalheim S, Jerg J, Schumann W. *IQUA Inclusion in Kindergarten. Quality through qualification.* Reutlingen: Diakonie Verlag; 2008.
- [36] Efthymiou E, Kington A. The development of inclusive learning relationships in mainstream settings: A multimodal perspective. *Cogent Educ*. 2017;4(1):1304015.
- [37] Wilson ZS, McGuire SY, Limbach PA, Doyle MP, Marzilli LG, Warner IM. Diversifying science, technology, engineering, and mathematics (STEM): An inquiry into successful approaches in chemistry. *J Chemic Educ*. 2014;91(11):1860-1866.
- [38] Marcial DE, Arcelo AQ, Montemayor JO, Laune MA. Digital trust in the academy: People, software and hardware. *Info Tech Learn Tools*. 2022;89(3):178-189.

Підготовка вчителя до професійної адаптації в інклюзивному освітньому середовищі

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Анотація

Актуальність. За останнє десятиліття вирішення питання формування готовності педагога до професійної адаптації в інклюзивному середовищі в освітніх установах Казахстану стало однією з найважливіших соціальних проблем суспільства держави. У цьому контексті набуває актуальності вирішення проблем реалізації компонентів готовності педагога та педагогічних умов його адаптації в інклюзивному освітньому середовищі, а також підвищення рівня його соціально-педагогічної компетентності.

Мета. Метою статті ϵ обґрунтування методики підготовки педагога до професійної адаптації в інклюзивному освітньому середовищі в контексті організації освітнього процесу в закладах освіти Казахстану.

Методологія. Методологічний підхід експериментального дослідження грунтується на аналізі літературних джерел для порівняння та зіставлення поглядів науковців на досліджувану проблему, систематизації та узагальнення теоретичних даних, порівняльного аналізу; емпіричні: описові методи (написання есе та мінітворів), метод експертних оцінок, анкетування, тестування, бесіда, спостереження, опитування, узагальнення педагогічного досвіду, розв'язання соціально-педагогічних ситуацій, генерування ідей, презентацій, структурнологічних схем; діагностичні (аналіз, анкетування); педагогічний експеримент (констатувальний, формувальний та контрольний).

Результати. Після проведення експериментального дослідження сформовано перспективні напрями вдосконалення методики формування готовності педагога до професійної адаптації в інклюзивному середовищі в закладах освіти Казахстану.

Висновки. Практична цінність роботи полягає в підготовці фахівця, здатного реалізувати створення сприятливого соціально-педагогічного інклюзивного освітнього середовища для організації та здійснення навчального процесу для інклюзивних здобувачів освіти в освітніх установах Казахстану.

Ключові слова: індекс інклюзії; соціально-педагогічна компетентність; компоненти готовності; педагогічні умови; заклади освіти.