



ORGANIZATIONAL, PEDAGOGICAL AND TECHNOLOGICAL CONDITIONS FOR THE TRAINING OF TEACHERS FOR INCLUSIVE EDUCATION

CONDICIONES ORGANIZATIVAS, PEDAGÓGICAS Y TECNOLÓGICAS PARA LA FORMACIÓN DE DOCENTES PARA LA EDUCACIÓN INCLUSIVA

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ABSTRACT

The article defines modern trends in professional training of teachers, caused by the processes of development of inclusive education of children in Ukraine. The essence and structure of teachers' readiness for inclusive education of children are revealed. To identify the structural and dynamic characteristics of the process of formation of teachers' readiness for inclusive education of children in the system of advanced training. The technology of formation of teacher's readiness for inclusive education of children in the system of advanced training has been developed and tested. The organizational and pedagogical conditions of productivity of formation of teachers' readiness for inclusive education of children in the system of advanced training are substantiated. The essence and structure of teachers' readiness for inclusive education of children are revealed taking into account modern trends in professional training of teachers; structural and dynamic characteristics of the process of forming teachers' readiness for inclusive education of children in the system of advanced training are identified. Mechanisms for accumulating personal and professional experience of teachers for the successful implementation of joint

education, upbringing and development of children with different educational needs (actualization, differentiation, integration and individualization) are identified and adapted, determining the stages of the experimental technology for forming teachers' readiness for inclusive education of children.

Keywords: Educational activities, inclusive education, management, pedagogical model.

RESUMEN

El artículo define las tendencias modernas en la formación profesional del profesorado, condicionadas por los procesos de desarrollo de la educación inclusiva de los niños en Ucrania. Se revela la esencia y la estructura de la preparación de los docentes para la educación inclusiva de los niños. Identificar las características estructurales y dinámicas del proceso de formación de la preparación docente para la educación inclusiva de los niños en el sistema de formación avanzada. Se ha desarrollado y probado una tecnología para desarrollar la preparación del profesorado para la educación inclusiva de niños en el sistema de formación avanzada. Se fundamentan las condiciones organizativas y pedagógicas para la



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productividad de la formación de la disposición del profesorado para la educación inclusiva de los niños en el sistema de formación avanzada. Se revela la esencia y la estructura de la preparación de los docentes para la educación inclusiva de los niños, teniendo en cuenta las tendencias modernas en la formación profesional de los docentes. Se identificaron las características estructurales y dinámicas del proceso de desarrollo de la preparación del personal docente para la educación inclusiva de los niños en el sistema de formación avanzada. Se han identificado y adaptado mecanismos para acumular experiencia personal y profesional del profesorado para la implementación exitosa de la educación, crianza y desarrollo conjunto de niños con diferentes necesidades educativas (actualización, diferenciación, integración e individualización), que determinan las etapas de la tecnología experimental para desarrollar la preparación de los docentes para la educación inclusiva de los niños.

Palabras clave: Activación educativa, educación inclusiva, gestión, modelo pedagógico.

INTRODUCTION

In recent decades, the global shift toward inclusive education has redefined the expectations placed on schools, teachers, and educational systems at large. Inclusive education is no longer viewed as a specialized model for accommodating students with disabilities; it is now recognized as a foundational principle of quality education one that affirms diversity and promotes equity for all learners, regardless of their abilities, backgrounds, or socio-economic status. This evolving understanding calls for transformative changes in how teachers are prepared to address the complexities of increasingly diverse classrooms.

As the educational landscape grows more heterogeneous, teacher education programs face the critical challenge of preparing professionals who can navigate inclusive environments with both confidence and competence. However, traditional models of teacher training often fall short in equipping future educators with the tools necessary to foster inclusion in practice. While policy frameworks across the globe advocate for inclusive education, the actual implementation of inclusive practices in schools remains inconsistent—often hindered by systemic barriers, lack of institutional support, and insufficient training in inclusive pedagogies and technologies.

Addressing these challenges requires a rethinking of the foundational conditions that support teacher preparation. This article explores three key dimensions that underpin effective training for inclusive education: organizational, pedagogical, and technological conditions.

Organizational conditions encompass institutional structures, leadership approaches, resource allocation, and policy alignment that create an enabling environment for inclusion. Pedagogical conditions relate to curriculum design, classroom strategies, and the cultivation of inclusive attitudes and reflective practices. Technological conditions involve the use of digital and assistive tools that enhance accessibility, support differentiated instruction, and promote equitable participation.

Taken together, these dimensions form a framework through which teacher training can be aligned with the demands of inclusive education. A holistic perspective on these interdependent conditions offers not only a deeper understanding of how teachers can be effectively prepared, but also highlights the systemic shifts needed to make inclusive education a lived reality in schools across diverse contexts. The article thus contributes to the ongoing discourse on building responsive, adaptable, and equitable teacher education systems in the 21st century.

For many years in Ukraine, children with disabilities were taught in special (correctional) schools that had the necessary conditions for teaching and correcting developmental disabilities in children. Teachers working in such schools had special (defectological) education. In this situation, teachers of general education organizations did not need to improve their teaching experience to work with this category of students. Currently, a number of universities have begun training teachers and specialists in the field of inclusive education in accordance with the higher education standard. However, the need to include children with disabilities in the educational process on an equal basis with their normally developing peers must be met today. Therefore, at the current stage of development of inclusive education, a special role in training teachers for its implementation is given to the system of advanced training at the institutional levels (Lindsay, 2003; Cummings et al., 2021; Fernández-Cruz et al., 2021; Drushlyak et al., 2023; Theodorio et al., 2024; Howorth et al., 2024; Florian, 2014).

The study of domestic and foreign psychological and pedagogical literature was conducted, on the one hand, in the direction of studying issues related to modern trends in the development of inclusive education for children, and on the other hand, identifying effective models of training teachers for inclusive education in the system of advanced training (Gioffre, 2017). Modern psychological, methodological and psychological-pedagogical approaches to teaching children with special educational needs in a general education organization differ significantly. Formally, inclusive education can be distinguished as a natural process of developing the system of special

education and bringing it closer to general education, which is reflected in the works of (Bray, 2007; Lavrentieva et al., 2020; Fernández-Cerero et al., 2023; Skvortsova et al., 2024).

From the point of view of authors who hold a different opinion, inclusive education is not a new system, but a qualitative and systematic change in the general education system as a whole (Batagan et al., 2011; Stevens, 2013).

Despite the fact that various aspects of the problem of professional training of teachers for the implementation of educational inclusion are the focus of attention of many authors, it should be noted that research on the formation of teacher readiness for the implementation of inclusive education of children and the organizational and pedagogical conditions that affect the effectiveness of this process have not been sufficiently studied in the system of advanced training.

Thus, the analysis of the current stage of development of educational inclusion in Ukraine and the system of advanced training of teachers in the field of inclusive education allowed us to formulate the following contradictions:

- between the objective need of society for a teacher who successfully implements professional activity in the conditions of inclusive education of children, and the insufficient readiness of teachers for the effective implementation of inclusive practice;

between the need to develop the readiness of a teacher for inclusive education of children and the insufficient development of methodological approaches and pedagogical technologies for its formation in the system of advanced training (Desiatnyk et al., 2022).

The purpose of the article is to identify and test a set of organizational and pedagogical conditions and the technology for developing teachers' readiness for inclusive education of children in the system of advanced training.

The object of the article is professional training of teachers for inclusive education of children.

The subject of the article is organizational and pedagogical conditions and the technology for developing teachers' readiness for inclusive education of children in the system of advanced training.

Research hypothesis: developing teachers' readiness for inclusive education of children in the system of advanced training will be more productive if:

- it is carried out taking into account modern trends in the development of the system of professional training of teachers for inclusive education of children;

- the transformation of the personal and professional experience of the teacher is aimed at the successful implementation of his professional activity in the conditions of inclusive education of children;

- the model of formation of teacher's readiness for inclusive education of children reflects the main structural and dynamic characteristics of the elements of this process (target, content, procedural-technological, result-correctional); criterial-diagnostic (Lunenburg & Ornstein, 2012),

- the technology of formation of teacher's readiness for inclusive education of children is based on the principles of adult education and is implemented at the stages of advanced training during training in additional professional programs and in the inter-course period;

- organizational and pedagogical conditions (training of teachers; organizational and managerial support and organization of interdepartmental interaction with social partners; provision of regulatory, scientific, methodological and information support) ensure the continuity and succession of this process.

METHODOLOGY

The research methods were determined in accordance with the objectives of the research and hypothesis testing: theoretical (theoretical analysis and generalization of data from scientific and pedagogical sources on the research problem, comparative and contrastive method, systematization, modeling); empirical (pedagogical observation, questionnaires, testing, survey, expert assessment method); experimental (ascertaining and formative pedagogical experiment); statistical (descriptive statistics, Studept's t-criterion, Φ^* - Fisher's angular transformation).

The theoretical significance of the study is that: the structural and dynamic characteristics of the process of forming teachers' readiness for inclusive education of children based on the integration of the pedagogical potential of the region, continuity and succession of the stages of advanced training during the period of study under additional professional programs and in the inter-course period have been determined; a technology for forming teachers' readiness for inclusive education of children in the system of advanced training based on the theory of adult education has been developed; organizational and pedagogical conditions for forming teachers' readiness for inclusive education of children have been substantiated, which enriches the theory of adult education.

The reliability and validity of the research results were ensured by the methodological validity of the initial theoretical positions; the use of a set of methods corresponding to the goals and objectives of the research; experimental

verification of the provisions constituting the research hypothesis; a combination of quantitative and qualitative analysis of the obtained results of experimental work; the use of methods of statistical processing of the research results.

The identified trends in the professional training of teachers in practices (differentiation of the content of programs depending on the category of teaching staff and the difficulties identified in professional activity; training of teams of teachers from one educational organization; conducting internships at inclusive schools or resource centers for inclusive education; continuity in the organization of advanced training of teachers during training in additional professional programs and in the inter-course period) formed the basis for organizing advanced training of teachers for the implementation of professional activities in the context of inclusive education of children.

The readiness of a teacher for inclusive education of children is an integral, personal and professional characteristic of a teacher, reflecting value-semantic orientations, knowledge and experience that allow successfully carrying out pedagogical activity in the context of inclusive education. The structure of readiness includes four components: motivational as a set of value orientations, meanings and motives of professional activity, acceptance of the values of inclusive education; cognitive as a set of theoretical and methodological knowledge in the field of inclusive education; effective as a set of analytical and predictive, projective, correctional and pedagogical and communicative skills and abilities for the implementation of the inclusive educational process; reflexive as a set of professionally significant qualities of an inclusive education teacher: empathy, responsibility, reflection.

The structural and dynamic model of the formation of teachers' readiness for inclusive education of children in the system of advanced training is a reflection of the essential properties, connections and relationships of the process under study and includes the following components: target (increasing readiness for inclusive education of children), substantive (preparation for organizing interaction of students with different educational needs), process-technological (consistent, step-by-step expansion of the experience of inclusive education), criteria-evaluation (monitoring the level of readiness based on a set of observed variables) and result-corrective (formed readiness of teachers for inclusive education of children).

The technology of forming teachers' readiness for inclusive education of children in the system of advanced training ensures step-by-step updating, differentiation, integration and individualization of teachers' experience

in the field of inclusive education of children. The continuity of this process is achieved by the sequence and continuity of the stages of advanced training during the period of training in additional professional programs and in the inter-course period. Training in additional professional programs of advanced training includes three stages: diagnostic-motivational, differential-activity and integrative-activity. In the inter-course period, three stages are implemented: analytical-design, individual and group reflection and correctional-consultative, aimed at supplementing, improving and individualizing the experience of teachers acquired during the period of training in additional professional programs of advanced training.

Organizational and pedagogical conditions that promote productivity, continuity and succession in the formation of teachers' readiness for inclusive education of children in the system of advanced training are: monitoring of staffing for inclusive education of children; training of teachers and methodologists in the field of inclusive education; organizational and managerial support and organization of interdepartmental interaction with joint partners; provision of regulatory, scientific, methodological and informational support.

The identified challenges served as a guideline in modeling the process of developing teachers' readiness for inclusive education of children in the system of advanced training. The model is a holistic system based on the methodology of systemic, personality-oriented, activity-based, axiological, competence-based approaches, and the main principles of andragogy: continuity, diversification, participation, reflexive management of professional training of teachers, communicative partnership and cooperation, defining the connections and relationships between all components of the process under study: target (formation of teachers' readiness for inclusive education of children in the system of advanced training), substantive (content of training teachers of inclusive education), procedural-technological (stages and stages of the technology of forming teachers' readiness for inclusive education of children), criteria-evaluation (criteria, levels of formation of teachers' readiness for inclusive education of children) and result-correctional (formed readiness of teachers for inclusive education of children).

When developing modular advanced training programs, it is necessary to rely on the principles of mobility and flexibility of content, forms and technologies of training. The initiation of the choice of the program belongs to the teacher and is based on his own interests and needs. The initiator of the choice or order of the advanced training program can also be the administration of the educational organization, sending a team of teachers to prepare

for teaching children with a certain type of developmental disabilities (hearing, vision, musculoskeletal system, etc.). The duration of training can vary depending on the request of the students and the number of selected modules (from 16 hours and up). For independent study of theoretical issues without interruption from professional activity, the teacher can choose the distance learning form. The development of the acquired practical skills is ensured in professional activity - at the workplace under the supervision of a methodologist or an experienced mentor teacher. The main resource for supporting the teacher are innovative sites and resource centers created on the basis of individual organizations for teaching children with disabilities and inclusive schools.

The experimental technology was tested in three stages. The first stage was diagnostic and motivational, aimed at bringing the content of training closer to the needs of the teacher implementing inclusive practice. The role of the teacher was to conduct psychological and andragogical diagnostics and provide assistance in identifying the individual educational needs of the teacher, determining the goal of training. For training adults, it was important to create psychologically comfortable conditions: mutual respect of the participants in the educational process, goodwill towards each other; ensuring freedom of opinion; refusal to criticize the participants in the learning process. The role of adult learners was to use their own experience as one of the sources of learning.

To solve the task set within the framework of the program, theoretical issues were brought up for lectures with an emphasis on the contradictions of inclusive education of children with disabilities, identification of weaknesses in its implementation, providing a holistic understanding of the key problems of inclusive education, laying the theoretical and methodological foundations for further independent work of teachers. Seminars included viewing and discussing fragments of feature films and documentaries about the features of education and problems of social adaptation of children with disabilities.

The proposed questions for discussion contributed to understanding the leading ideas of inclusive pedagogy, the formation of analytical skills and conceptual approaches based on the study of various alternative models of teaching children with disabilities together with normally developing peers, acceptance of the ideas of inclusive education, the need to work in a team of specialists (defectologists, psychologists, speech therapists, tutors, social workers) with active interaction with the parent community. Such forms of work allowed the students, based on the reflection of their activities, to identify contradictions and shortcomings in working with

children with disabilities, to accept the ideology of inclusive education for children with disabilities and to determine the trajectory of further professional development.

The second stage - differential-activity, was aimed at productive assimilation by teachers of theoretical knowledge of the regulatory and legal framework of inclusive education, the basics of correctional pedagogy and special psychology, practical skills in designing the educational process for children with disabilities. To disclose the topics of the modules, teachers of the relevant profile in the field of special (defectological) education and special psychology were invited. The task of the teachers was to assist in the selection of training content for interdisciplinary modules. The role of the students was to acquire the competencies necessary to solve a vital and professionally important problem. Teachers were asked to study the theoretical and methodological foundations and regulatory and legal support for the education of children with disabilities; developmental features and special educational needs of students with disabilities; special pedagogical technologies, methods and techniques used in the educational process when teaching children with disabilities; requirements for the creation of special conditions in an educational organization for the education and upbringing of children with disabilities; issues of organizing interdepartmental interaction in providing psychological, pedagogical, medical and social assistance to children with disabilities (Hehir et al., 2016).

The third stage — integrative-activity, was aimed at acquiring a comprehensive experience in the field of educational inclusion and implementing, on the basis of integrated! acquired knowledge and skills in teaching children with disabilities together with their peers with normal development. The role of the teacher at this stage was to organize the interaction of all participants in the learning process, to activate potential relationships between students, the teacher, content, sources, means, forms and methods of teaching. The students of the courses completed the training program created jointly with the teacher at the planning stage. In interaction with the teacher, they practiced the principles of reflection and teamwork and provided psychological and pedagogical support to students with disabilities in the context of inclusive education.

The classes had a practical-oriented focus and were held on the basis of inclusive educational organizations and schools for children with disabilities, which are innovative platforms or resource centers! centers. The program required open lessons, extracurricular activities, video lessons, etc. The students analyzed the lessons, classes,

determined special conditions for teaching children with various disabilities (hearing, vision, musculoskeletal system, speech, intelligence and emotional-volitional sphere), noted the peculiarities of the children's activities and the teacher's ability to manage the interaction of all children in the class in the educational process, able to implement a differentiated and personality-oriented approach in the context of joint education of children.

The final stage was carried out jointly by the students and the teacher and consisted of identifying the actual level of mastery of the program by the students, identifying unmastered topics, sections of modules; determining further educational needs of a specific student and the strategy for their further implementation. The students identified problem areas for themselves and planned an individual course of professional development, which, after completing training in an additional professional program, continued within the framework of professional development activities in the inter-course period. At this stage, the students assessed the effectiveness of the means, forms and methods of teaching used; assessed the quality of the programs, the effectiveness of the joint activities of students and teachers.

Based on the assessment received, adjustments were made to the organization of the training process, individual sections of the training program were clarified, a new request was formed from teachers for the development of additional professional programs for improving the qualifications of teachers at the Institute for the Development of Education, recommendations for state (district) methodological services, professional associations of teachers, administrations of educational organizations and a specific teacher.

The testing of the experimental technology at the stage of improving qualifications in the inter-course period was carried out in three stages.

The first stage - analytical and design, was aimed at updating the subjective experience of teachers in the conditions of inclusive education of children, identifying the main difficulties in professional activity and determining the ways to solve them. The goal was achieved through a survey aimed at identifying the difficulties of teachers, discussion platforms and round tables to exchange opinions and various approaches in the field of educational inclusion. Based on the analysis of the identified problems, «road maps» were developed, work plans for professional associations of teachers, programs for holding scientific and practical conferences and seminars, working and creative groups were created, methodological recommendations were drawn up, the current pedagogical

experience of both individual teachers and educational organizations implementing educational inclusion was studied, etc.

The second stage — individual and group reflection, was aimed at forming the components of readiness of teachers of inclusive education, at acquiring experience in using knowledge and skills in the process of pedagogical inclusive practice. For this purpose, scientific and practical conferences and seminars were held, at which theoretical and practical aspects of organizing inclusive education were considered. The events were attended not only by teachers, educators, specialists in psychological and pedagogical support, but also by representatives of healthcare institutions, social protection, and universities. Practice-oriented seminars were held on the basis of innovative sites. The main forms of professional development are pedagogical workshops, trainings, interdisciplinary consultations, presentation and defense of current pedagogical experience, open lessons with self-assessment of the teacher and discussion of the results in the group, etc.

The third stage is correctional and consultative, aimed at adjusting the process of formation of readiness of teachers of inclusive education, at stimulating them to plan an individual route of professional development as a process of continuous updating of the qualification of a teacher in the field of educational inclusion.

Within the framework of the experimental work, the following methods were used: moderation, self-analysis of professional activity, individual counseling of teachers, tutor support. Based on diagnostics and self-diagnostics of the level of formation of readiness of teachers for inclusive education, individual programs of professional development and self-education were compiled.

Experimental verification of the technology showed positive statistically significant dynamics of all components of readiness of teachers for inclusive education of children among teachers of the experimental group, in contrast to teachers of the control group, in which statistically significant dynamics were found only for individual components of readiness.

Thus, the results of the study confirmed the effectiveness of organizational and pedagogical conditions and technology for developing teachers' readiness for inclusive education of children in the system of advanced training.

CONCLUSIONS

The current trends in the professional training of teachers, conditioned by the processes of development of inclusive education of children in Ukraine, are revealed. The knowledge and structure of teachers' readiness for

inclusive education of children are highlighted, which is an integral, personal and professional characteristic of a teacher, reflecting the purposeful and semantic orientations, knowledge and experience that allow successfully carrying out pedagogical activity in the conditions of inclusive education.

The structural and dynamic characteristics of the process of forming teachers' readiness for inclusive education of children in the system of advanced training, which are the basis of its model, are revealed.

The technology of forming teachers' readiness for inclusive education of children in the system of advanced training is implemented at two stage-by-stage - training in additional professional programs and advanced training in the inter-course period. The organizational and pedagogical conditions for the productivity of the formation of teachers' readiness for inclusive education of children in the system of advanced training are outlined: monitoring of staffing for inclusive education of children; training of teachers and methodologists in the field of inclusive education; organizational and managerial support and organization of interdepartmental interaction with social partners; provision of regulatory, scientific, methodological and informational support.

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