ANNOTATION

to the dissertation for the PhD degree

6D010500 Defectology

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"Pedagogical conditions of organizing distance learning for students with disabilities at the university"

Relevance of the research. Ensuring the rights of people with disabilities to education is seen as one of the goals of the state educational policy. The ratification of the UN Convention on the Rights of Persons with Disabilities on February 20, 2015 confirmed the state's intention to develop a system of vocational education for persons with disabilities, including higher education [3]. The implementation of this intention seems to be strategically important, since higher education contributes to an increase in the social status of persons with disabilities and the level of their involvement in social and labor relations.

Currently, according to the Organization for Economic Cooperation and Development (2017), 338 students with disabilities study at 39 universities in Kazakhstan, including 192 at classical universities, 85 at technical universities, 47 at pedagogical universities, and 14 at economic universities [4]. The number of students with disabilities increased from 29 in 1995 to 338 in 2016. The share of students with disabilities in the total student population increased from 0.04% in 1995 to 0.5% in 2016. This is a positive trend, although it is still far from the European level, where the share reaches almost 5% (Moore & Kearsley, 2011) [5].

The need to ensure equal conditions and barrier-free access to education for persons with disabilities, "the creation of special conditions, taking into account the individual characteristics of students for education", which are reflected in the Law of the Republic of Kazakhstan "On Education" and the State Program for the Development of Education and Science of the Republic of Kazakhstan for 2020-2025 [6], intensified the work of universities to create an adapted environment for students with disabilities. However, the spread of the coronavirus (COVID-19) pandemic has jeopardized the effectiveness of the vocational education process for students with disabilities in higher education. Under these conditions, the universities of the Republic of Kazakhstan, in accordance with the order of the Ministry of Education and Science of the Republic of Kazakhstan "On strengthening measures to prevent the spread of coronavirus infection COVID-19 in educational institutions, organizations for orphans and children left without

parental care for the period of the pandemic" organized work to switch to remote mode teaching their students [7].

The transition of the system of Kazakhstan higher education to distance learning and conducting online classes with students sharply indicated serious gaps and insufficient readiness of universities in the material, technical, organizational and methodological terms to introduce a distance education system. At the same time, if the problem of transferring "ordinary" students from full-time education to online mode has now been resolved, then the issue of organizing distance learning for students with disabilities is practically not given sufficient attention. At the same time, the category of students with disabilities has its own specific characteristics and educational needs, which greatly complicate the process of obtaining higher education through the distance learning system. It was about this category of students and the possible threat of a decrease in the quality of their education that was announced by the President of the Republic of Kazakhstan K.K. Tokayev in his Address to the people of Kazakhstan, who paid special attention to providing conditions and creating equal opportunities for people with special needs [8].

Possible threats to reduce the quality of higher education and the requirements of the state educational policy determine the need to address the organizational, content and technological aspects of distance education for students with disabilities.

The level of the topic development. Currently, studies are presented on the issues of ensuring access of persons with disabilities to higher education and the anti-discrimination approach, determining the list of necessary services for students with various forms of disabilities, finding the most effective models for accompanying students with disabilities at the university, etc. For example, American scientists Shepler and Woosley (2012), Smith (2015), Marshak et al. (2010), Trainor et al. (2015) investigated the problems of organizing learning conditions in universities for persons with disabilities. [9-12] The subject of the study by Mary Elizabeth Collins, Carol T. Mowbray et al. was the study of special services created in the university and campuses for students with mental disorders [13].

Researchers Laura Marshak, Harnett et al. [11, 14] defined a framework for "stigmatizing disability" and examined the difficulties associated with academic achievement and higher education. Scientists have identified the following problems: limited maximum achievable success compared to peers without disabilities, a higher risk of declining academic performance and not completing education, insufficient solution to social issues, the presence of a higher level of emotional or psychological stress, the appearance of individual cases of bias or

stigma on the part of teachers, consultants and peers. The presence of significant stress and anxiety due to lack of time among students with disabilities is evidenced by the studies of scientists Heiman and Precel (2003), who note the greatest difficulties for this category of people associated with the study of social, humanities and foreign languages [15].

British researchers Sanderson (2001), Barnes (2007), Caton and Kagan (2007) [16-18], Harnett (2016) [14] note that people with disabilities have some uncertainty when they enter universities due to the lack of necessary information about the forms and nature of the existing support for them at the university. The authors identified four types of conditions that are decisive when students with disabilities choosing a particular educational institution: the availability of available information about the academic process (details regarding individual courses, possible training options, assessment format, etc.), about the nature of the provision of basic services, on the presence of a coordinator, assistant or responsible person in the university, on the preparedness of all staff for teaching students with disabilities.

In recent decades, research has been actively carried out on the problems of obtaining higher education by persons with disabilities in the near abroad, while distance learning is singled out as one of the promising methods. It seems that distance education is becoming one of the most effective and promising forms of general, professional and higher education in the new era of information technology [19]. Distance learning technologies open up new opportunities for obtaining qualifications and professional skills, especially for people with disabilities [20], since it provides them with the opportunity not only to receive education, but also to help in subsequent work [21].

In the Republic of Kazakhstan, as well as in the Russian Federation, the development of the distance learning system dates back to the mid-90s of the twentieth century, therefore, by now, the universities of both countries have developed a certain personnel potential, possessing information technologies, scientific and methodological experience in organizing distance learning systems. The most significant in this regard are the studies of E.K. Balafanova, G.M. Esbosynova, J.A. Karaeva [22], D.A. Bogdanova [23], E.G. Gaevskoy [24], V.P. Demkina [25], D.M. Dzhusubalieva [26], M.V. Moiseeva, E.S. Polat, M.Yu. Bukhankina [27], A.M. Tatenova, V.P. Tikhomirov [28], which presents the theoretical and methodological foundations of the organization of distance learning, the features of its didactic and methodological support.

Problems of the development and implementation of computer training programs in the process of teaching various disciplines are encountered in the research works of V.G. Zhitomirsky, G.A. Zvinigorodsky, A.A. Kuznetsova, T.N.

Lebedeva, L.S. Nosovoy et al. [29-32]. The didactic and pedagogical possibilities of using computer training systems are reflected in the scientific works of S.K. Kaldybaeva, G.V. Mozhaeva, O.P. Okolelova, G.B. Skok et al. [32-36]. The development of new information technologies is studied by A.P. Ershov, V.M. Zavarykin, M.P. Lapchik, V.M. Monakhov, V.G. Razumovsky and others [37-41]. The technology of creating integral computerized courses is considered in the works of E.V. Artykbaeva, Zh.A. Karaeva, S.P. Kritsky, E.S. Polat, E.G. Skibitsky, E.A. Feoktistova, L.I. Choline [42-48]. The structuring of educational material in the process of creating electronic textbooks is proposed by scientists V.V. Grinshkun, G.K. Nurgalieva and others.

The issues of organizing the distance learning system for students with disabilities at the university are presented to a much lesser extent and are reflected in the studies of Russian authors: B.B. Ismontas, A.E. Simanovsky, D.F. Romanenkova [49, 50, 51] and others, the development of electronic teaching aids for working with students with disabilities are found in the works of A.E. Simanovsky, D.F. Romanenkova, E.S. Polat, I.V. Robert [50, 51, 52]. At the same time, one of the most important conclusions of these studies is the presentation of the distance learning system as an effective mechanism for obtaining higher education for persons with disabilities, providing them with real opportunities for subsequent employment, self-realization and self-sufficiency.

The issues of teaching persons with disabilities in Kazakhstani universities are just beginning to become the subject of research. In the studies of Kazakhstani authors that have appeared in the last five years, the organizational models of support for students with OEP in the university (B.M. Mazhenov), the issues of training university teachers to teach students with disabilities (A.A. Kabdyrova), the issues of creating educational environment for students with limited mobility (Z.A. Movkebaeva, G.N. Zholtaeva, etc.), etc. Despite the presence in the Republic of Kazakhstan of a certain practical experience and conducting a number of studies on the problems of teaching people with disabilities at a university (Z.A. Movkebaeva, B. M. Mazhenov, A.A. Kabdyrova and others) [53-55], there is insufficient knowledge of this problem.

Topical issues of organizing distance learning for students with disabilities at a university and the development of effective distance technologies have not been the subject of research in Kazakhstan until now. Accordingly, at the present stage, in the indicated direction, certain **contradictions** can be traced between:

- the requirements of the modern information society in the formation of a personality adapted to the conditions of world development, and the insufficient focus of the educational experience of universities on distance learning for students with disabilities;

- the need of the higher education system in the implementation of distance learning for students with disabilities and insufficient development of the material, technical, content and methodological support of this process;
- awareness of the need to adapt the distance learning environment to the characteristics of students with disabilities and the lack of developed pedagogical conditions for its implementation in the educational process of universities.

The contradictions identified by us determined **the research problem**: what pedagogical conditions should be created at the university for the effective implementation of distance learning for students with disabilities?

The relevance and insufficient development of this problem led to the choice of the topic: "Pedagogical conditions for the organization of distance learning for students with disabilities in a university."

Purpose of the research: theoretical substantiation, development and experimental verification of a structurally meaningful model of pedagogical conditions for organizing distance learning for students with disabilities at a university.

Research object: distance learning in the higher education system.

Subject of the research: pedagogical conditions of distance learning for students with disabilities at a university.

Scientific hypothesis of the research: if distance education of students with disabilities at a university is organized in the form of an integral pedagogical system, including special material, technical, organizational, methodological and psychological-pedagogical conditions, taking into account the general and nosological characteristics of psychophysical development, then this will increase the availability and quality of distance higher education, so how the possibility of adaptation and individualization of the educational process will be provided in accordance with the characteristics of each student.

Research objectives:

- 1. To justify and give the essence of the content of the concept of "distance learning for students with disabilities."
- 2. To determine the current trends in the development of the distance learning system for students with disabilities.
- 3. To substantiate the pedagogical conditions for organizing distance learning for students with disabilities, adapted to the modern conditions of higher education in the Republic of Kazakhstan.
- 4. To develop a structural-meaningful model of the organization of distance learning for students with disabilities at a university and to test its effectiveness experimentally.

The leading idea of the research is that the creation of an integral pedagogical system, including special material, technical, organizational, methodological and psychological-pedagogical conditions, taking into account the general and nosological characteristics of psychophysical development, increases

the availability and quality of distance higher education for students with disabilities.

The theoretical and methodological foundations of the research are: the idea of human integrity, determined by the unity of biological, social and personal (F. Bacon, V.G. Maralov, V.D. Shadrikov), cultural and historical theory of the development of the psyche and personality development (L.S. Vygotsky, A.N. Leontiev, A.R. Luria), the theory of individualization of learning (N.A. Zavalko, A.A. Kirsanov, E. S. Rabunsky, V.P. Rusanov, I.E. Unt, etc.), theory of computerization of learning (B.S. Gershunsky, Zh.A. Karaev, E.I. Mashbits, V.M. Monakhov, E.S. Polat, etc.), theory of organization of distance learning (D.M. Dzhusubalieva, E.G. Skibitsky, I.V. Robert, etc.), synergetic approach (V.I. Arshinov, I.R.N. Sadovsky, E.G. Yudin and others), activity approach (L.S. Vygotsky, A.N. Leontiev, S.L. Rubinstein and others), competence approach (E. F. Zeer, I.A. Zimnyaya and others), personality-oriented approach (E.V. Bondarevskaya; V.V. Serikov; I.S. Yakimanskaya and others), psychosocial approach (E. Erickson and others), integrated approach (B.G. Ananiev, N.G. Alekseev and others), informational approach (D. Marr, V.M. Kazakevich, L.I. Fishman, V.A. Yakunin, etc.).

In accordance with the purpose, hypothesis and objectives of the research, the following **research methods** were identified:

Theoretical methods - analysis of regulatory documents of the Republic of Kazakhstan in the field of education of persons with disabilities and psychological and pedagogical literature on the topic of dissertation research; generalization of foreign and domestic experience in organizing distance learning for students with disabilities, modeling the process of organizing distance learning for students with disabilities at a university.

Empirical methods - questionnaires, semi-structured interviews, ascertaining and shaping experiments,

Mathematical and statistical methods: quantitative and qualitative processing of experimental data.

Research base: Kazakh National Pedagogical University named after Abai (KazNPU named after Abai) and Pavlodar Pedagogical University (PPU). The study involved 176 teachers and 185 students with disabilities.

Organization of the study: The study was conducted in three stages, from 2017 to 2020.

At the first, **theoretic stage** (2017-2018), the study and analysis of psychological, pedagogical, scientific and special literature on the research problem was carried out, the level of its development was determined. The methodological apparatus of the dissertation research has been developed, a structurally meaningful model of the organization of distance learning for students with disabilities at a university has been substantiated and developed.

At the second, **experimental stage** (2018-2019), the research base was prepared, diagnostic tools were selected and adapted, the questionnaire survey and a semi-structured interview of students with disabilities were organized, ascertaining and formative experiments were carried out.

At the third, **summarizing stage** (2019-2020), the analysis and generalization of the research results were carried out, the conclusions obtained at the previous stages were corrected, practical recommendations on the formation of a distance educational environment for teaching students with disabilities at the university were refined and supplemented, the thesis text was drawn up.

The main points for the defense:

- 1. The concept of "distance learning of students with disabilities" is a complex of educational services based on an individual approach, taking into account nosology and the use of interactive teaching aids, which is carried out using a special information and educational environment based on the means of exchanging educational information at a distance, and providing wide involvement of citizens with disabilities in the educational process. The basis of distance learning is the purposeful independent work of students, which is organized and controlled by the teacher, and requires certain personal qualities from students and the presence of cognitive and organizational independence.
- 2. Modern foreign and domestic trends in the development of distance learning for students with disabilities: international and state strategies for creating equal opportunities in all spheres of society, including education; the role of the social-integration and rehabilitation potential of higher education, the legislative provision of educational opportunities for this category of students in universities, the development of forms and technologies of distance learning, etc. determine the need to ensure a holistic system of various conditions in the university.
- 3. The complex of necessary pedagogical conditions for distance learning for students with disabilities includes material, technical, organizational, methodological and psychological pedagogical components, which are selected on the basis of an individual approach, taking into account the nosology of disorders and adapted to the modern conditions of higher education in the Republic of Kazakhstan.
- 4. The structural and content model of the organization of distance learning for students with disabilities at the university, which is an integral pedagogical process, is developed on the basis of a synergetic, systemic, activity-based, competence-based, personality-oriented, integrated psychosocial, and informational approach and includes a target, theoretical and methodological, content-technological organizational-preparatory and components. Each component of this model has its own content and methodological features that solve certain pedagogical problems in distance education for people with disabilities.

The practical significance of the research is: in the selection of diagnostic tools for studying the state of distance education for students with disabilities; in

the development of an intra-university normative document "Rules for full and partial distance learning at a university for students with disabilities"; in the development and testing of the methodological manual "Methodological recommendations for the formation of a distance educational environment of the university for teaching disabled students with limited mobility"; in the creation of an electronic textbook "Inclusive Education"; in the development and implementation into pedagogical practice of an additional professional training program for university teachers on the organization of distance learning for students with disabilities.

The reliability and validity of the results obtained are provided by the initial theoretical and methodological positions; analysis of regulatory documents and scientific sources on the research problem; a complex of theoretical, empirical, mathematical and statistical methods corresponding to the set goals and objectives; variety, consistency and duration of research procedures.

Testing and implementation of research results.

The main points, results and conclusions of this dissertation research are reflected in 24 publications, of which 7 - in the materials of international scientific and practical conferences, 9 - in journals recommended by the Committee of Science of the Ministry of Education and Science of Republic of Kazakhstan, 4 - in international scientific and practical journals, 2 - in a foreign journal included in the SCOPUS database. Based on the research materials, 1 electronic textbook was prepared, a methodological manual was published, and 2 copyright certificates were received. The main aspects, conclusions and results of the study were discussed at international scientific conferences:

- 1. Distance learning at the university for students with special educational needs // Materials of the IV International Scientific and Practical Conference. Kramatorsk, 2018. . p. 298-306.
- 2. Higher education for students with special needs by means of distance learning // International Journal Knowledge.—Vol. 26.2. Skopje p. 569-574.
- 3. Analysis of the current state of the organization of an accessible educational environment in the universities of the Republic of Kazakhstan // Materiały XIV Międzynarodowej naukowipraktycznej konferencji nauka i inowacja Poland, 2018. p. 96-99.
- 4. Teachers readiness for distance education of disabled students // International Journal Knowledge.— Vol. 28.3. Skopje, Global Impact & Quality Factor 1.322 (2016) for December 2018 p. 1011-1014.
- 5. Mugedek studentterdi oqytu yshin qolzhetimdi bilim beru ortasyn alyptastyrudyn qazhettiligi // Materials of the V International scientific and practical conference. Kramatorsk, 2019. p. 325-331.
- 6. Teachers'attitude towards disabled students of distance learning departments at higher educational institutions // The 1st International Volga Region Conference on Economics, Humanities and Sports was held on September 24-25, 2019. Kazan, Naberezhnye Chelny, Russia. p. 379-382.

7. Pedagogical conditions for the organization of distance learning for students with disabilities in the university // International scientific and practical conference: Integration of theory and practice of special and inclusive education // Kazakh State Women's Pedagogical Institute. - April 13, 2021.

The materials of the dissertation research served as the basis for the development and implementation of innovative projects: as the head of a research project for young researchers under a grant from KazNPU named after Abai on the topic: "Creating a model of an accessible university environment for KazNPU named after Abai" (2018) and a member of the scientific group of the project at grant of the Ministry of Education and Science of the Republic of Kazakhstan AR05134037 "Formation of a distance educational environment of a university for teaching students with disabilities".

The structure of the thesis. The dissertation includes an introduction, two parts, conclusion, a list of references and applications.

The introduction substantiates the relevance of the research topic, characterizes the level of study of the problem, formulates the object, subject, scientific hypothesis of the research, goals and objectives, scientific novelty, theoretical and methodological foundations, theoretical and practical significance of the research.

The first part "Theoretical and methodological foundations of the organization of distance learning system for students with disabilities in the university" defines the essence of the concept of "distance learning for students with disabilities", analyzes and systematizes the stages of formation and development of the distance learning system, characterizes the trends and prospects of distance learning for students with disabilities, substantiates and describes a structurally meaningful model of the organization of distance learning for students with disabilities at a university.

The second part "Experimental work on the organization of distance learning for students with disabilities at a university" presents the results of the empirical study of the state of the process of distance learning for students with disabilities in Kazakhstani universities, describes the experimental experience of implementing the system of pedagogical conditions for distance learning of students with disabilities, analyzes the results of approbation structurally a meaningful model of organizing distance learning for students with disabilities at a university.

In the conclusion, the results of the study are summarized, the main results are described and recommendations for the creation of pedagogical conditions at the university for distance learning for students with disabilities are presented.

The appendix contains materials that supplement the main text of the thesis.