ACTIVATING MODEL OF PROFESSIONAL TRAINING OF PERSONS WITH DISABILITIES AS COMPETITIVE SPECIALISTS IN HIGHER EDUCATION ESTABLISHMENT

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INTRODUCTION

One of the urgent problems of modern society focused on creating an equal opportunities community is the quality of professional training for people with disabilities, which enables them to compete on an equal basis with specialists without disabilities in the current labor market.

INTRODUCTION TO THE PROBLEM

Professional training programs, including higher education courses. There is a steady trend in Russia to increase both the number of students with disabilities in Russian universities and the number of educational organizations providing them with professional training (VOTYAKOVA, 2018; ZAIR-BEK; BELIKOV; SERGEEEV, 2016; KUDRYAVTSEV; KASHTANOVA, 2016).

However, the absence of modern Russian pedagogy with a holistic theory of professional education for students with disabilities causes many problems, such as the quality of professional training, for example, which would allow individuals with disabilities to compete on an equal basis with people without disabilities in the modern labor market.

The domestic experience of professional education for students with disabilities is beginning to take shape. To date, there are only partial and essentially pilot studies of the organization of higher inclusive education:

Employees of the 16 resource educational and methodological centers for the inclusive higher education of disabled people operating in Russia publish separate articles, which usually contain monitoring studies (ZAIR-BEK; BELIKOV; SERGEEEV, 2016; KASHTANOVA; KUDRYAVTSEV, 2017; KUDRYAVTSEV; KASHTANOVA, 2016; ROKOTYANSKAYA, 2015; FEDOROV et al., 2018). It is pointed out that the education of disabled people in higher education establishments is now largely spontaneous, without a solid theoretical basis (SELIVANOVA; SHCHETINA, 2017).

Russian pedagogy has developed the following methodological approaches to the organization of higher inclusive education:

Representatives of the first approach note the need to observe the variable principle in the organization of professional training for persons with disabilities, based on integrating the achievements of special (correctional) pedagogy and pedagogy of professional education (KOPYLOVA, 2010; MARTYNOVA; ROMANENKOVA, 2013). From the point of view of E.M. Starobina, achieving the effectiveness of professional education of people with disabilities is possible only if specialized and regular institutions are integrated into a single educational space, including as its central part the rehabilitation space, which involves the introduction of variable rehabilitation and educational technologies in the practice of professional training (BESAN; KONOVALOVA, 2016; KANTOR; MURASHKO, 2002; STAROBINA, 2003).
Proponents of the dynamic approach to inclusive education proceed from the position that when planning the organization of an inclusive environment, including at a university, it is necessary to remember that the structure of an inclusive educational process cannot be static and created once and for all (ZABORINA, 2017). Thus, P.R. Egorov, reflecting on the problems of implementing inclusive education in Russia, notes that creating it in a particular educational organization cannot be considered a one-time project and that decisions should be made based on specific conditions implementing the principle of inclusion. Therefore, creating an inclusive environment in an educational organization can be successful only if pedagogical monitoring and critical assessment data are used to identify specific problems for this organization (EGOROV, 2012).

Proponents of the third approach note the need to organize special support services in higher education institutions (ALEKHINA; VACHKO, 2014; AREFIEV, 2016; ZABORINA, 2017). It should be noted here that at present, both in Russia and abroad, the idea of supporting professional inclusive education for students with disabilities is being implemented in practice through the opening and functioning of special centers and services (KARPUSHKINA; OLKHINA, 2016). Thus, in the works of domestic and foreign authors, the idea of the functioning of the so-called “service services” is developed to support and rehabilitate students with disabilities (BOGINSKAYA, 2016). A brief theoretical analysis allows us to draw two important conclusions:

- first, there is no systematic research in modern pedagogy of the problem of professional training for people with disabilities as competitive specialists, which would ensure the formation of such professional competencies, knowledge, skills, and personality qualities that enable them to successfully compete with specialists without disabilities in the modern labor market;
- secondly, the developed methodological approaches to the organization of higher professional education of disabled persons are not inherently inclusive: they all proceed from the idea of creating special conditions for students with disabilities.

We propose a completely different approach based on activating the interaction between the teacher, the study group, and all subjects of the educational process.

**The model of professional training of students with disabilities as competitive specialists**

Based on the conducted empirical studies (BONKALO et al., 2020; GREBENNIKOVA; BONKALO; RUDENKO, 2019; MAKHOV et al., 2018; RASPOPOVA et al., 2018; MIKHAILOVA et al., 2019), as well as systematic theoretical analysis, we have elaborated a pedagogical model that represents the unity and interrelation of the goals, content, methods, methodological techniques, means and forms of professional training, and methods of measuring and evaluating its effectiveness (Figure 1).
At the same time, the professional training of persons with disabilities as competitive specialists is understood as the process of mastering the system of knowledge, skills, and abilities necessary for the successful implementation of the labor functions of a specific profession representative; the process of forming their professional competencies and such personal qualities that ensure their ability to compete on an equal basis with specialists without disabilities in the labor market.

The essence of such training is to create conditions for realizing each disabled student's professional and personal potential, which determines his/her ability to compete on an equal basis with specialists without disabilities in the labor market. The realization of professional and personal potential involves the development of all areas of the future specialist's personality: professional activity, reflecting the level of formation of professional competencies among students with disabilities, ensuring their successful performance of all work functions; motivational value, manifested in the professional orientation of their personality, a high level of development of the need for achievements, motivation for work and professional career; emotional and volitional aspect, causing neuropsychic stability,
psychological and physical endurance and regulating the activities of a specialist, his/her tenacity and perseverance; psychological and archeological aspect as a developed need for self-actualization and professionalization.

Professional training of persons with disabilities as competitive specialists includes their theoretical, practical, and personal training, which meets the requirements for the relevant specialists. Professional training of persons with disabilities is carried out based on individualization of training compliance with inclusion, unity, optimism, activity, and subjectivity. Individualization of training involves the development and implementation of individual educational routes. The process of their design consists of the students’ understanding of their future life plans, their strengths and weaknesses, their achievements, opportunities and abilities, and the motives for self-improvement in the chosen field of professional activity.

By analogy, individual curricula are built for personal training courses. The development of individual educational routes, individual study maps of academic disciplines involves awareness of the motives for their training and employment prospects and an assessment of the level of formation of professionally important qualities of the student’s personality.

The content and technological support for the implementation of the developed model consists in the algorithmization of professional training, the use at each stage of it (adaptation (semester 1), auto-actualization (semesters 2-3), prognostic (semester 4), transforming (semesters 5-7) and designing (semester 8) of unique pedagogical technologies – technologies for mastering theoretical knowledge, developing cognitive functions, analytical, predictive and design skills, technologies for stimulating creative activity; practical and oriented technologies of group interaction in an inclusive group: games, simulations, discussions; technologies of inclusion of students with disabilities in student self-government and voluntary activities.

MATERIALS AND METHODS
The developed model was implemented in a formative experiment that lasted from 2014 to 2018 – from the 1st to the 4th year of higher education programs in different training areas. The experimental group consisted of 18 inclusive student groups, where 416 students graduated in 2018, 71 were graduate students with disabilities. The control group consisted of 18 student groups: the total number of students was 388, and students with disabilities - 63.

For the experiment, diagnostic tools were developed for expert assessment of the formation level of disabled students’ academic, practical, and personal readiness for professional activity and competition with specialists without disabilities in the labor market. Each criterion has four to ten indicators, which teachers and employers evaluate from 0 to 5 points. The general level of readiness is determined based on the average score of the expert assessment. Diagnostic tools allow you to identify preparedness features: the deficit type of preparedness, adaptive, intuitive, functional, theoretical, able-bodied, competent, and competitive.

RESULTS
The proof of the effectiveness of the developed model is the fact that the percentage distribution of students with disabilities, who made up the experimental and control groups, according to the levels of their academic, practical, and personal readiness, significantly differed from each other by the end of the experiment (it should be noted that at the beginning of the research, there were no significant differences between the groups).

Thus, by the end of the experiment, a third of students with disabilities (32,39%) were characterized by a high level of academic readiness, 35,21% - practical readiness, and 30,99% - personal readiness. In the control group, on the contrary, more than a third of students with disabilities had a low level of appropriate readiness: 38,09% - theoretical, 33,33% - practical, and 38,09% - personal (Figure 2).

Attention should be paid to the fact that in the experimental group, the differences in the assessments of the readiness of students with and without disabilities for professional activity
do not differ at a significant level of differences (p > 0.05). In contrast, in the control group, disabled students’ readiness is significantly lower than that of students without disabilities (p < 0.05).

**Figure 2.** Percentage distributions of students with disabilities in the experimental and control groups according to the levels of their readiness for professional activity at the end of the experiment (%)

Moreover, at the end of the experiment in the experimental group, most subjects with as well as without disabilities were characterized by competitive and competent levels (type) of professional readiness. In the control group, however, no such data were found (Figure 3).

**Figure 3.** Percentage distributions of respondents with disabilities in the experimental and control groups by levels (types) of their professional readiness

16.3% of graduates with disabilities from the experimental group had a competence-based type of training; that is, their professional activity is characterized by reasonably high indicators of developing general professional and professional competencies. In the control group, only 8.70% of graduates with disabilities had such training. The competitive type of readiness was revealed in 25% of graduates with disabilities in the experimental group. At the end of the experiment, there were no graduates with disabilities who had the same high level of academic, practical, and personal readiness in the control group.

**Source:** Search data.
The majority of students in the control group, on the contrary, were characterized by either adaptive or functional types of professional readiness. In general, after graduation, they had the opportunity to adapt to the working conditions and perform their work duties in case of employment. However, the lack of development of the individual's creative abilities and competitive qualities does not allow them to compete on an equal basis with specialists without disabilities in the labor market.

DISCUSSION

The conducted pedagogical experiment showed the effectiveness of the developed activating model and the conditions for its implementation in modern, inclusive practice. It is essential to talk about the variety of training methods used to implement the activating model.

As a rule, training methods reflect the types of specific actions and proceed from the work of the analyzers corresponding to the plans: look, hear, act. Training methods are focused on the fact that the student sees, listens, and performs.

Traditionally, it is considered that in the conditions of training of persons with a deficient type of mental development, that is, with disorders of the auditory, visual analyzers, and functions of the musculoskeletal system, it is necessary to adapt the teaching methods to their special educational needs. To adapt teaching methods means to improve the process of receiving information transmitted to students during training sessions, that is, to create such conditions that the information is perceived by each student, regardless of his/her psychophysiological characteristics. First of all, it is necessary to remember the compensatory capabilities of persons with disabilities. It is known that the main pattern in the short form of dysontogenesis is asynchrony, which manifests itself in a variable rate of development of different mental functions. Compensatory capabilities of students with disabilities can offset the differences between them and healthy students.

During lectures and practical classes in groups where students with visual impairments (including those who are blind) were trained together with healthy students, methods of audio commentary of illustrative material were used: slides, figures, diagrams, tables. At the same time, during the lectures, teachers were given recommendations not to use demonstrative pronouns but to enunciate everything depicted on the presentation slides. In groups, where people with hearing impairments were taught with healthy students, illustrative methods were used before a lecture or practical lesson; students were offered a "handout" containing illustrations in the form of a schematic representation of the main theoretical notions, categories, and concepts.

One of the most effective methodological techniques was the "double U-turn" technique when everyone without exception (in order not to segregate students with disabilities in psychophysical development) was given a material containing a brief description of the basic concepts and categorical conceptual apparatus necessary for a successful understanding of information. When referring to the illustrated material, it is repeated many times with comments and explanations, which determines the strength of its memorization. In groups, where students with hearing or musculoskeletal disorders study with healthy students when choosing methods of presentation of the material, it is necessary to consider the predominance of visual and imaginative thinking over verbal and logical thinking. In this regard, visualized methods differ in the efficiency of such groups.

The variety of teaching methods, the alternation of traditional, standard methods with methods of activating cognitive activity, even without the use of special technical means, determine the success of memorizing educational and scientific information by persons with disabilities.

Within the developed model, much attention is given to developing subjectivity and self-determination and practical preparation for professional activities. Such training involves using practice-oriented technologies of group interaction in an inclusive group in classroom and extracurricular time, practical classes, practice, extracurricular activities, game simulation, discussion, technologies of a problem and developmental learning, and building forms of independent work.
Training of a person with disabilities for the implementation of professional activities, able to compete on an equal basis with specialists without disabilities in the labor market is carried out in the course of classroom and extracurricular pedagogical activities with the help of special tools and methods of pedagogical interaction. The indirect influence of the student group in training sessions, extracurricular activities and practices, participation in self-government, and voluntary activities ensure the expected effect. One of the conditions for developing personal qualities in students with disabilities as competitive specialists is implementing a reflexive-evaluative component in all training sessions as the main component. In this case, various techniques can be used: for example, the technique "Write a letter to yourself, mark the positive and negative aspects of your training in it," "Urgent Telegram," "Feedback Sheet," etc.

One of the central problems of professional education of persons with disabilities is forming positive motives for their work. The transformation of reasons should reflect the transition from pragmatic reasons (to get a diploma, to be like everyone else, to get a higher education, to continue their physical education and sports, etc.) to the motives of educational and professional activity, including interest in the profession, the desire for professional self-improvement, of professional critical personal qualities, and the need for work. Competitions of professional skills, professional decades, including contests, Olympiads, quizzes, involving students with disabilities in them, in their organization and conduct are necessary conditions for developing labor and professional motivation. Thus, the conducted pedagogical experiment allows us to formulate the main provisions of the developed activating model. These include:

- the use of various teaching methods in the educational process, the rejection of standard methods of transmitting information in a ready-made form, the use of active ways of developing and problem-based learning, methodological techniques and technologies that actualize their professional and personal potential;

- creating a situation of success and personal achievements in classroom classes and extracurricular activities;

- involvement of students with disabilities in student self-government, volunteer activities, and the development of a mentoring system at the university, where mentors are also persons with disabilities

- activation of the indirect impact of positive relationships in an inclusive student group, stimulating the processes of imitation, infection, mutual influence, exchange, and mutual enrichment;

- building the educational process on inclusion, unity, optimism, activity, subjectivity, implementation of individuality, and integrative approaches.

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Activating model of professional training of persons with disabilities as competitive specialists in higher education establishment

Ativação de modelo de formação profissional de pessoas com deficiência como especialistas competitivos em estabelecimento de ensino superior

Activación del modelo de formación profesional de las personas con discapacidad como especialistas competitivos en los establecimientos de educación superior

Resumo
O objetivo do estudo é avaliar a eficácia de um modelo ativador de formação profissional em uma universidade para pessoas com deficiência como especialistas competitivos. O modelo desenvolvido foi implementado em um experimento formativo que durou de 2014 a 2018 - do 1º ao 4º ano de cursos superiores em diferentes áreas de formação. O grupo experimental era composto por 18 grupos de estudantes inclusivos, onde 416 alunos se formaram em 2018, 71 eram estudantes de pós-graduação com deficiência. A prova da eficácia do modelo desenvolvido é o fato de que a distribuição percentual de alunos com deficiência, que compõem os grupos experimentais e de controle, de acordo com os níveis de prontidão académica, prática e pessoal, difere significativamente um do outro ao final do experimento. A variedade de métodos de ensino, a alternância de métodos tradicionais e padrão com métodos de ativação da atividade cognitiva, mesmo sem o uso de meios técnicos especiais, determinam o sucesso da memorização de informações educacionais e científicas por pessoas com deficiência. médio especializado no âmbito do ensino a distância.

Palavras-chave: Pessoas com deficiência. Treinamento. Modelo. Educação inclusiva. Apoio.

Abstract
The purpose of the study is Assess the effectiveness of an activating model of vocational training at a university for persons with disabilities as competitive specialists. The developed model was implemented in a formative experiment that lasted from 2014 to 2018 - from the 1st to the 4th year of higher education programs in different training areas. The experimental group consisted of 18 inclusive student groups, where 416 students graduated in 2018, 71 were graduate students with disabilities. The proof of the effectiveness of the developed model is the fact that the percentage distribution of students with disabilities, who made up the experimental and control groups, according to the levels of their academic, practical, and personal readiness, significantly differed from each other by the end of the experiment. The variety of teaching methods, the alternation of traditional, standard methods with methods of activating cognitive activity, even without the use of special technical means, determine the success of memorizing educational and scientific information by persons with disabilities.

Keywords: Persons with disabilities. Training. Model. Inclusive education. Support.

Resumen
El objetivo del estudio es evaluar la eficacia de un modelo activador de formación profesional en una universidad para personas con discapacidad como especialistas competitivos. El modelo desarrollado se implementó en un experimento formativo que duró de 2014 a 2018, del 1er al 4to año de programas de educación superior en diferentes áreas de capacitación. El grupo experimental consistió en 18 grupos de estudiantes inclusivos, donde 416 estudiantes se graduaron en 2018, 71 eran estudiantes graduados con discapacidades. La prueba de la efectividad del modelo desarrollado es el hecho de que la distribución porcentual de estudiantes con discapacidad, que conformaron los grupos experimentales y de control, de acuerdo con los niveles de su preparación académica, práctica y personal, difirió significativamente entre sí al final del experimento. La variedad de métodos de enseñanza, la alternancia de métodos tradicionales y estándar con métodos de activación de la actividad cognitiva, incluso sin el uso de medios técnicos especiales, determinan el éxito de la memorización de información educativa y científica por parte de las personas con discapacidad.

Palabras-clave: Personas con discapacidad. Capacitación. Modelo. Educación inclusiva. Apoyo.