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## Training of Teaching Staff for Education System of Students with Disabilities: Problems and Prospects

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### Abstract

The purpose of the study is to identify the resources of Surgut State Pedagogical University (SurGPU) in teaching staff training for the education system of students with disabilities. The analysis of native and foreign experience allowed defining a number of problems and leading ideas in teaching staff training for the education system of students with disabilities and revealing the regional experience in speech pathologists training in SurGPU. The methodological framework of the research is in axiological, competency-based, system-activity and technological approaches.

The above indicated approaches provided the basis for the development and introduction of training system of pedagogical staff for educating students with disabilities and its mechanisms: implementation of directions and orientations providing the professional competency formation in pedagogical, psychological and pedagogical, social educations; provision of interdisciplinary integration of disciplines of general professional and subject training for the work with students with disabilities; presence of special department of pedagogical and special education; interaction realization of higher-education institution, educational institutions and the Regional resource centre of educational technologies in work with students with disabilities; future teachers participation in leading forms of social and pedagogical practices.

The obtained results allow talking about high indices achievement in training system of future educators for educational process organization with students with disabilities, define the increase of students' interest level in personal and professional growth, motivation increase to mastering general cultural and professional competences. That all proves the efficiency of our suggested mechanisms of professional staff training for education system of students with special educational needs.

*Keywords:* higher education, professional training, teaching staff, students with disabilities, education system.

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## **Introduction**

The strategic directions of the state policy in the field of education are defined as increasing the availability and quality of education for students with disabilities, creating a system of special conditions, where the leading place belongs to the training of teaching staff.

The analysis of the experience of pedagogical universities in Russia revealed a number of problems in the training of teaching staff:

- a narrow range of areas of training of teachers who are able to carry out the educational process of students with disabilities, the absence of a two-profile bachelor's degree in the direction of 44.03.03 Special (defectological) education;
- the curriculum does not have enough elective courses and courses that reflect the specifics of the education of students with disabilities;
- lack of specialized departments that train teachers in the field of special pedagogy;
- lack of a systematic approach in the interaction of the university, educational organizations, the Regional Resource Center for Working with students with disabilities in the training of teaching staff;
- insufficient use of the opportunities of social and pedagogical practices in the development of general professional competencies of future teachers.

The Federal law "About education in the Russian Federation" dated from 29 December 2012 № 273-FL (ed. 07.03.2018), the state program "Development of education in the KhMAD -Yugra for 2018-2025 and for the period up to 2030" defines the priority of professional staff training, their competence increase in working with students with disabilities, which is confirmed by statistical data: in the 2020-2021 academic year, 16,100 people with disabilities and 4,200 children with disabilities receive education.

The participants of the 2<sup>nd</sup> congress of defectologists noticed the number growth of children with disabilities in our country and emphasized the necessity in specialists' assistance for more than a million of children.

Shortage of qualified teachers-defectologists, further training for the specialists in the mentioned field, generalization and transmission of advanced experience in professional activity are still the vital problems (Alyokhina, Klochko, Avilocheva & Sedykh, 2020).

Defectologists training for work not only in conditions of special but also inclusive education is of crucial significance. The problem of teaching staff training keeps being the most important in the process of educational practice changes (Alyokhina, 2016).

Shemanov and Samsonova identify the insufficient staffing competent in the field of teaching children with disabilities as one of the main problems in comprehensive schools. They think that it increases the percentage of children studying at home (2019).

On the modern level of education renovation and active digital technologies usage a teacher-defectologist provides effective implementation of diagnostic, remedial and consultive activities in terms of implementation of the national project “Young professionals”, the concept development of inclusive education, socialization, personal development and self-realization of students with disabilities (Vodennikova, 2015; Zaretsky, 2020; Niyazova & Khamitova, 2010).

To achieve the goal of education quality increase it’s necessary to develop the theory and practice of special pedagogy and psychology, to continuously search for new solutions in professional training of specialists in the direction Special (defectological) education that are ready for solving both standard and non-standard professional tasks in terms of education modernization (Rubtsov, Alyokhina, & Khaustov, 2019; Alyokhina, Melnik, Samsonova & Shemanov, 2020).

### **Purpose and objectives of the study**

The purpose of the study is to identify the resources of SurGPU in teaching staff training for the education system of students with disabilities. The main tasks are to analyze native and foreign experience and to define the leading ideas in teaching staff training for the education system of students with disabilities; to reveal the regional experience in educators-defectologists training in SurGPU.

### **Literature review**

Korzhenovich worked out the model of competency formation in the field of interaction with a child with disabilities at future teachers-defectologists (2009). The author described the conditions of optimization of future teachers-defectologists professional training in the system of higher, secondary and additional professional education.

While realizing the complex analysis of professional training of staff for the work with children with disabilities, Aslayeva notes that the process of defectologists training must be socially and pedagogically directed, oriented at educational process integration; include integration of defectologists general and special training for education of people with disabilities; refer to activity approach to realize the interaction of the subjects of educational process (2011).

Filatova reveals the theoretical and methodological aspects and presents the conception of deontological training of teachers-defectologists in higher education institution, considers deontological training of future graduates as one of the important components of professional competency and discusses the conditions of personality and professional becoming of a teacher as a means of mastering the standards of professional behavior, professional culture formation and self-realization mechanisms development (Filatova, 2015).

Norkina considers the possibility of digital technologies application in the process of future defectologists training. The author notifies the necessity of digitalization of professional training of teachers working with children with disabilities. This area acquires special vitality through the lens of quasi-professional and educational-professional basic forms of future specialists training (Norkina, 2012).

Vodennikova proves the importance of purposeful work on social-cultural values development during professional training of future teachers-defectologists by means of introduction of tutor accompaniment of students' studying activity; on contextual education implementation in the process of future teachers training; on implementation of the elective course "Teacher-defectologist's professional culture" for future teachers of special education (Vodennikova, 2015).

Lavskaya considers social competence as an integrative personality trait of an future teacher providing value understanding of social activity, social aims acceptance and allowing to build effectively his professional behavior in professional area (Lavskaya, 2012).

Alyokhina emphasizes that the qualitative transition to inclusion in educating children with disabilities is possible only where there is professional knowledge, difficulties reflection, creative approach and professional cooperation (Alyokhina, 2016).

Sergeeva presented the model of teachers-defectologists training of inclusive orientation on Bachelor's program providing for transformation of transition to level system of staff training, of competency approach to designing educational programs according to FSES HE; providing for renovation of motivational-purposeful prescriptions, guidelines and the content of educational environment (2019).

Solovyova notices that today specialists in teaching children with disabilities must be ready to solve both common and problem professional tasks that are provided with variability of curricula of training directions forming both universal and professional competences of future teachers (2020).

Zaretsky describes the cooperation vector, conditions and orientation in overcoming studying problems by students with disabilities in the process of interaction between a teacher and a child by means of reflexive-activity approach, implying understanding of reasons of difficulties and mistakes and also a search of ways of professional tasks solution (2020).

Latchem considers the skills that will be specially needed in future and innovative teaching methods implemented by means of information technologies and are necessary in regeneration of education system. The author confirms that beyond the academic knowledge and technical skill future professionals are in need of the development of common attributes and skills of informational technologies usage that are necessary in living and working in the 21<sup>st</sup> century (Latchem, 2018).

Lungulov, Radulovich, Gayich, Shpanovich (2019) consider the problem of ongoing professional development of staff and building the national system of teachers advanced training on all educational levels, creating the built-in system of assessment of teachers training quality.

Bombardelli (2020) considers the educational measures for advanced training of teachers working with students of all types, pays special attention to high level of competences; study and choice of the best strategies of empowerment, abilities development and academic progress improvement in all students.

## **Methodology**

The methodological framework of the research is in the following approaches:

- axiological, that defines the role of values-based orientations in creating social and psychological environment of a person and admission each personality as a society value (Zhuravlyov & Soina, 2012; Hentonen, 2015);

- competency-based, providing the formation of general professional and professional competences compiling the bases of teaching staff training for working with students with disabilities (Chekaleva & Duka, 2018; Solov'eva, 2020);
- system-activity, intensifying practical teaching staff training in accordance with the requirements of Federal state educational standard, APEP and professional standard "Educator" (Shadrikov, 2001; Davydov, 1996);
- technological, defining the resources of the system of higher education institution training of future educators and the mechanisms of FSES of HE implementation (Smantser, 2013; Khaustov, 2020; Ryabova & Karpunina, 2016).

The given approaches compile the fundamentals of professional staff training for education system of students with disabilities. The main mechanisms for its implementation are: implementation of directions and orientations providing the professional competency formation in pedagogical, psychological and pedagogical, social educations; provision of interdisciplinary integration of disciplines of general professional and subject training for the work with students with disabilities; presence of special department of pedagogical and special education; interaction realization of higher-education institution, educational institutions and the Regional resource centre of educational technologies in work with students with disabilities; future teachers participation in leading forms of social and pedagogical practices.

To research the future educator training for working with students with disabilities the following criteria are defined: motivational, cognitive, activity and reflexive.

Research methods: theoretical (analysis of literature, normative-legal and legislative documents); empirical (study of pedagogical experience, pedagogical experiment); survey-diagnostic (survey of teachers, practicing teachers, questioning of students "Readiness diagnostics of educators for working with children with disabilities" (Filatova, 2015), the technique "Diagnostics of person's motivational structure" (Millman, 1990) testing; mathematical (methods of statistical processing of research results (Fisher's criterion).

The investigation of future educators' readiness for education system of students with disabilities was held on three stages: ascertaining, formative and control. The study was conducted in Surgut State Pedagogical University. The total number of respondents is the following: 108 – academic teaching staff, 235 - practicing educators and 135 - future educators.

## **Results**

On the first stage of the investigation the focus was made on the study of academic teaching staff readiness for conducting professional training of future educators for education system of students with disabilities. Thus, 62% professors specialize in teaching and educating people with disabilities or had such experience. The presence of connection of experience and skills upgrading activity is quite evident. That's why academic teaching staff of the university had skills upgrading in work with people with disabilities "education process organization for teaching students-invalids and students with disabilities in a higher education institution" (108 p.), "Sign language" (4 p.), "Inclusive education" (5 p.) and "Tutor in inclusive education system" (1 p.).

The monitoring was conducted among the practicing educators of KhMAO-Yugra (235 p.). The monitoring was aimed at seeking out the level of professional competences maturity at educators in questions of organization and realization of education of children with disabilities and invalids. Among the investigated markers there were subject, methodic and psychological and pedagogical competences. The high level in subject competence was demonstrated by 13% respondents, in methodic competence – by 15% respondents and in psychological and pedagogical – by 13% respondents. A rather high marker of the low level in methodic competence was demonstrated by 54,8% respondents, in psychological and pedagogical competence – by 50,6% respondents and in competence subject – by 35,3% respondents. The final markers in all levels of mastering all competences are the following: low – 56,5%, medium – 30%, high – 13,5%.

The primary diagnostics of future educators readiness for implementation of education among learners with disabilities in motivational, cognitive, activity and reflexive criteria was conducted. It allowed determining the problems:

- insufficient level of motivation to pedagogical activity, of creativity manifestation, communicative and organizational skills;
- fragmentarity and inconsistency of knowledge that provide the formation of general cultural and professional competences, influence on the efficiency of pedagogical activity in education for learners with disabilities;
- insufficient manifestation of professional skills in cooperation with learners with disabilities, of ability to find effective forms and methods of teaching and educating learners with disabilities and so on;

- lack of values maturity determining professional and socially important orientation of a personality towards activity of learners with disabilities and lack of maturity of skills of reflexive analysis of own activity in education for learners with disabilities.

So, the obtained results of the investigation determine the topicality of development of training system of a future educator for working with learners with disabilities.

On the second stage of the investigation the formative experiment was organized on implementation of teaching staff training system for education of learners with disabilities. The main mechanisms of the given system implementation have become:

- implementation of directions and orientations providing the professional competency formation in pedagogical, psychological and pedagogical, social educations that allow realizing teaching staff training: “Pedagogical education”, “Psychological and pedagogical education”, “Special (defectological) education”. The graduates of these directions annually make up staffs of educational institutions in KhMAD-Yugra that implement special and inclusive teaching of people with disabilities;

- provision of interdisciplinary integration of disciplines of general professional and subject training for the work with students with disabilities that allowed including academic disciplines “Special pedagogy and psychology”, “Practical training in work with children with disabilities (on subject)” and others; optional disciplines aimed at realization of competences OPK-3, OPK-6: Diagnostic and remedial activity of an educator; Special pedagogy and psychology, Practical training in work with children with disabilities (on subject); Psychological and pedagogic cooperation of participants of educational process in the curriculum of directions “Pedagogic education” and “Psychological and pedagogic education”.

Optional disciplines play an important role in formation of practical skills necessary for working with people with disabilities (children, learners and other categories). The more complete academic disciplines and optional disciplines highlighting the work with children with disabilities in conditions of inclusive education were the following orientations of direction “Pedagogic education”:

- orientation “Fine art” – 7 disciplines;
- orientation “Russian language and literature – 5 disciplines;
- orientation “Mathematics and primary education” – 5 disciplines;
- orientation “Physical culture” – 5 disciplines.

It's worth noticing that professional training in directions "44.03.03 Special (defectological) education", "49.03.02 Physical culture for people with disabilities (adapted physical education)" highlights, to a greater extent, pedagogical staff training for education system of learners with disabilities.

The directions "44.04.01 – Pedagogical education", "44.04.02 – Psychological and pedagogical education", "44.04.03 – Special (defectological) education" are presented by the disciplines "Theoretical and methodological foundations of inclusive education", Inclusive education organization in a preschool educational institution" and "Inclusive education organization in a group of general development". The above mentioned disciplines are generally conducted by Department of Pedagogical and Special Education, Department of Theories and Methodologies of Preschool and Primary Education, Department of Theories and Methodologies of Physical Culture Education/

- presence of special department of pedagogical and special education, the qualified staff of which allowed opening new Master's program orientations in direction 44.04.03 Special (defectological) education and 44.04.01 Pedagogical education that answers the requirements of the labour market of KhMAD-Yugra;

Provision with admission quotas in 2021 on education in orientations of Master's program 44.04.03 Special (defectological) education: Logopedic support of people with speech pathology and Education of people with mental problems (26 places where 16 are state-funded, 10 – privately funded), and also in Master's program direction 44.04.01 Pedagogical education, orientation Management of educating systems in educational institutions (13 places where 8 are state-funded, 5 – privately funded) allows solving the situation of "staff shortage" in education system, and also provides with implementation of scientific and pedagogical capacity of academic teaching staff of higher education institution;

- interaction realization of higher-education institution, educational institutions and the Regional resource centre of educational technologies in work with students with disabilities and 17 supporting educational centers aimed at effective training of teaching staff for education process organization of learners with disabilities.

The activity of the Regional resource centre of educational technologies on work with children having development peculiarities is defined as one of the significant SurGPU resources in teaching staff training for education of people with disabilities including inclusive form. The main trends of the center are:

1) scientific methodological support of educational process of learners with autistic spectrum disorders and other mental disorders;

- 2) information and awareness raising support of educators and parents bringing up children with ASD and other mental disorders;
- 3) teaching specialists in the field of complex assistance provision for children with ASD and other mental disorders;
- 4) cooperation of the Regional resource centre with the public authorities of KhMAD-Yugra, educational and social institutions in terms of implementation of Conception of complex support of people with disabilities. The cooperation with supporting educational centers of KhMAD-Yugra is being brought out and Association of supporting educational centers including 17 supporting educational centers is created.

So, the activities of SurGPU Regional resource centre allow solving important issues in the field of special and inclusive education.

- future teachers participation in leading forms of social and pedagogical practices: “Leaders school”, “Inclusive volunteer school” and others that allow developing general professional and professional competences.

“Leaders school” is an educational project aimed, mainly, at future educators training for work in children’s health camps and for solution of non-standard pedagogical situations.

“Inclusive volunteer school” is an educational project aimed, mainly, at inclusive volunteers training – involvement of initiative people in the process of volunteer assistance and support of people with disabilities, and also, integration of people with disabilities of different disability groups in volunteering process by their participation in sessions of University of inclusive volunteering (SurGPU volunteers, inclusive volunteer group “PRO-Dobro”; skills upgrading in the program “Inclusive volunteering in University” (36 hours) that allowed SurGPU becoming a methodic ground for training of inclusive volunteering leaders in terms of sessions of Inclusive volunteering where the participants are higher education institutions of Russia.

On the third stage the secondary diagnostics of training of future educators for implementation of education of learners with disabilities was held.

So, the conducted complex investigation allowed defining the problems, developing and implementing the system of teaching staff training for education of learners with disabilities and determining its efficiency on the ground of comparison of the obtained results of ascertaining and control stages.

## Discussion

To maintain the efficiency of the system of teaching staff training for education of learners with disabilities we compare the obtained results of ascertaining and control stages. The generalized results of ascertaining and control stages are in Table 1.

Table 1. The generalized results of assessment of future educators training for work with learners with disabilities (ascertaining and control stages, %)

Component	Motivational		Cognitive		Activity		Reflexive	
	Assert. stage	Contr. stage						
Levels								
High	6	25	10	38,5	9	28	5,5	30,5
Medium	74,5	62,5	65,5	58	64,3	58,1	48,5	50,5
Low	25,5	12,5	24,5	3,5	26,7	13,9	46	19

Let's analyze the obtained results in motivational component. Thus, attitude to future professional activity with learners with disabilities was chosen as the main feature for level determination in motivational component. In motivational component respondents growth on high level was 19% (from 6% to 25%) with the following features: steady interest in work with learners with disabilities, ability for self-assessment and self-analysis, activity in professional tasks solution. Respondents fall with low level motivation by 13% (from 25,5% to 12,5%) is evident.

The analysis of the results of cognitive component investigation showed the positive dynamics in psychological and pedagogical competency of respondents, increase of knowledge content and technologies of working with learners with disabilities that are applied in system of special and inclusive education, namely, marker's increase of respondents on high level by 28,5% (from 10% to 38,5%) and marker's fall on low level by 21% (from 24,5% to 3,5%). It gives reason to state the efficiency of educational block of professional training of future educators for work with learners with disabilities.

As the main marker of level assessment in activity component we defined practical application of knowledge in the field of psychological and pedagogical support of learners with SEN. Thus, respondents growth in high level is 19 % (from 9% to 28%), that demonstrates the enlargement of the spectrum of practical skills of students in teaching and educating learners with disabilities.

We state the considerable marker's fall on low level (by 12,8%) that testifies the increase of students' activity in education and self-education.

The investigation of reflexive component of professional training of future educators showed respondents growth on high level by 25% (from 5,5% to 30,5%) with the feature of axiological, reflexive position referring to their realized activity, and also considerable respondents fall on low level by 27% (from 46% to 19%) that allow saying about focus of learners on development by means of self-education and adequate self-assessment of their actions in terms of professional activity.

The obtained results are generalized in diagrams 1 and 2:

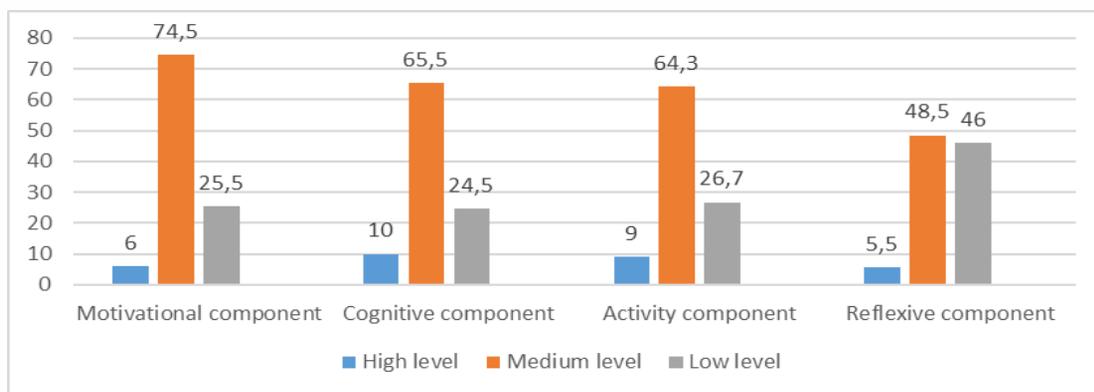


Diagram 1. The generalized results of readiness assessment of future educators for work with learners with disabilities (ascertaining stage, %)

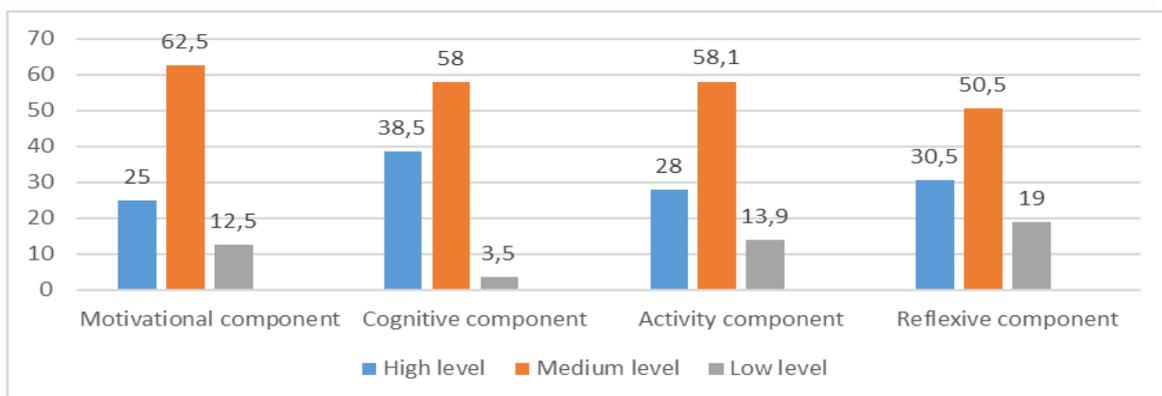


Diagram 2. The generalized results of readiness assessment of future educators for work with learners with disabilities (control stage, %)

Quantitative and qualitative analyses of the obtained results and their comparison on the ground of Fisher criterion showed the veracity of levels difference in future educators readiness for work with learners with disabilities in motivational ( $\varphi * emp = 3,81$ ; for  $\phi * cr = 2,31$  for  $P \leq 0,01$ ), cognitive ( $\phi * emp = 4,70$ ; for  $\phi * cr = 2,31$  for  $P \leq 0,01$ ), activity ( $\phi * emp = 4,14$ ; for  $\phi * cr = 2,31$  for  $P \leq 0,01$ ) and reflexive components ( $\phi * emp = 4,651$ ; for  $\phi * cr = 2,31$  for  $P \leq 0,01$ ), that testifies the positive dynamics in future educator training for work with learners with disabilities and effectiveness of the system of teaching staff training for education of learners with disabilities.

The obtained results of the investigation allow saying about high markers achievement in the system of future educators training for educational process organization of learners with disabilities, determine level increase in students' interest in personal and professional growth, motivation increase to mastering general cultural and professional competences that proves the efficiency of our suggested mechanisms of professional staff training for education system of learners with special educational needs.

So, our experimentally tested constellation of mechanisms of professional becoming of future educators is justified and effective, and Surgut State Pedagogical University' s experience in implementation of tasks of professional training of future educators provides necessary educational platform, determines the necessity in work continuation with an aim to make cumulative results of implementation of our suggested mechanisms the base of further changes in system of professional training of educators for work with learners with disabilities.

### **Conclusion:**

The problem of teaching staff training for work with learners with disabilities is multifold and it requires a complex approach to its solution.

In the light of the analysis of SurGPU pedagogical experience and obtained investigation results the recommendations were developed: to enlarge the variants of professional educational programs of teaching staff training for education system of learners with disabilities, to consider the possibility of introducing duaprofile bachelor 44.03.03 Special (defectological) education; to introduce a system of interaction "University education organization - resource center - educational support centers" in the process of teacher training; use the opportunities of social and pedagogical practices, inclusive volunteerism in the development of general professional and professional competencies of students.

### **Abbreviations**

SurGPU Surgut State Pedagogical University  
ASD Autistic Spectrum Disorder  
RF Russian Federation  
SEN Special Educational Needs  
ATS Academic Teaching Staff  
APEP Adapted Principle Educational Program

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