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# **SUBSTANTIVE AND TECHNOLOGICAL MODERNIZATION OF THE PROCESS OF TRAINING THE STUDENTS WHO STUDY AS SPECIALISTS IN ‘SPECIAL (DEFECTOLOGY) EDUCATION’**

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## **Abstract**

The article reveals the main trends in modernizing the higher vocational education in the ‘Special (defectology) Education’, whose priority task is establishing the occupational skills. While noting, that in Russia, as in the leading European countries, there are changes in the nature of education - purposes, content, technologies, the shift in the education results from the concepts of ‘proficiency’, ‘knowledge’, ‘general culture’ to the concepts of ‘skills’ and ‘competence’. The author carries out a constructive analysis of the technological and substantive aspect of the educational activity from the Institute of Psychology and Education of the Kazan (Volga Region) Federal University in preparing the bachelors, who study in the field of ‘Special (defectology) Education’.

*Keywords:* occupational competence, inclusive education, Lekotek, biofeedback, teaching practice

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## **1. Introduction**

Over the last years, a variety of studies has shown the lack of teachers’ occupational competence, including the special ones, in creating a relevant educational situation for the comprehensive development of children and adolescents with learning disabilities. Hence, the issues of vocational training of the preschool and school teaching staff for the work with the risk group children are urgent [1].

The occupational competence of a speech therapist should be considered as an important psychological and educational condition for the efficiency of the propaedeutic, as well as remedial and developmental work with the children, who have difficulties while learning oral and written speech.

The occupational competence is directly identified and manifested in the professional activity and determined by the degree of the occupational competence in implementing this activity. The occupational competence and the competence in the professional activity are closely related. From these perspectives the occupational competence could be considered as a unity of teacher’s theoretical and practical competence in the professional activity, which ensures its creative nature. The theoretical competence implies obtaining the theoretical activity, which is manifested in the ability to think as an educator. The key elements of the theoretical competence are the constructive activities and pedagogical monitoring, which require, that an educator has the analytical, forecasting, projective and reflexive skills. The educator’s practical competence is expressed in the ability to act as an educator. It includes the organizational and communication skills. The competence in the creative activity is an important occupational characteristic of the educator’s personality, which provides the possibility to realize his professional potential [2].

Modernization of the comprehensive school brings to the forefront the issue of training the future educators, who could achieve within a short period of time such a degree of occupational competence, which would ensure a high education quality [3].

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## 2. Main part

Nowadays there is a need for providing such quality of the university training, which allows achieving not only the standard degree of the occupational competence (the general cultural, objective, psychological and educational, methodological and other elements) of the future teacher, stipulated by the modern state educational standards, but also providing the potential for creativity during the professional development.

The occupational competence and the competence in the professional activity are closely related [4].

From these perspectives the occupational competence could be considered as a unity of the teacher's theoretical and practical competence in the professional activity. The theoretical competence implies obtaining the theoretical activity, which is manifested in the ability to think as an educator. The educator's practical competence is expressed in the ability to act as an educator. It includes the organizational and communication skills. The competence in the creative activity is an important occupational characteristic of the educator's personality, which provides the possibility to realize his professional potential.

The Institute of Psychology and Education of the Kazan Federal University carries out a thorough substantive and technological modernization of the teaching staff training for the field of the inclusive education of the educational psychologists, special educators, and speech therapy teachers [5].

An important feature of this stage of developing the inclusive education is the lack of vocational training of the general educators and the follow up specialists, who could implement the inclusive approach. They require the specialized integrated support by the experts in the special needs education, the special and educational psychology, as well as understanding and implementing the approaches to the individualization of teaching the children with special educational needs, to which category the students with health disabilities primarily belong. But the most important thing, which the general educators should learn is to work with different children, and to take into account this diversity in their teaching approach [6].

The students of the Department of the Psychology for Special Needs and the Special Needs Education get theoretical and practical vocational training for working with the children with special needs. At the same time, the principles of inclusion (humanity, non discrimination, fairness) are included in all the studied courses: 'Inclusive Education for the Children with Health Disabilities', 'Management and Scope of the Specialized Psychological Support for the Children with Health Disabilities', 'General Methodological Aspects of Training in the Specialized Education Institutions', 'Special Education', 'Psychology for Special Needs', etc. [7]. An analysis of the Russian trends in the special education over the last two years shows that in many large cities (Saint Petersburg, Moscow, Novosibirsk and others) Lekoteks have widely become a part of the service sector, which supports the children with special needs. Nowadays, in Russia, Lekotek is considered as a service of the psychological follow-up and special educational assistance to the families, which bring up the children with severe developmental disorders.

The conducted analysis of main educational program of training a bachelor in the specialty # 050700.62 - Special (defectology) Education - has shown that the issue of training the therapeutic staff for working with children with health disabilities and their parents in the context of Lekotek is insufficiently developed. Therefore, in the Department of Psychology for Special Needs and Special Needs Education has been developed a course on 'Innovation Methods in Lekotek' (72 hours), which allows organizing the students' knowledge of managing the integrated support to the children with multiple developmental disorders and their parents in establishing the skills of following up the handicapped children under the new variable conditions of the special education. [8]

Designing this course was an innovation, as the practical studies were held in the university therapeutic laboratory, organized at the Department of Psychology for Special Needs and Special Needs Education of the Institute of Psychology and Education of the Kazan (Volga Region) Federal University. The activity in the university laboratory is carried out within the issue of 'Designing an Innovation Model of the Inclusive Space for the Children with Special Educational Needs', therefore the students directly delved into the Lekotek environment during the classes [9].

Since nowadays the computer technologies are extensively applied in the education process, a lot of simple and complex computer programs for various knowledge areas are developed. A special place among the computer programs is taken by the specialized computer programs for the children with various developmental disorders. New information technologies have become a promising tool for the

remedial and developmental work with the children with speech disorders. A special approach to the use of the computer-based training hardware in the special education has been applied while developing the biofeedback method (BFB). This technology is aimed at developing proper breathing.

At the present stage BFB has acquired a wide popularity as an innovation method of the restorative medicine, which helps the body to work properly and productively, as well as to restore its lost functions and to strengthen the current ones.

According to the development program of the Kazan Federal University for the years 2010-2019, the speech therapeutic BFB equipment for Lekotek, which is used by the students from Special (defectology) Education, has been purchased. The professors of the Department of Psychology for Special Needs and Special Needs Education were trained in a non-state institution of further vocational education (specialists' skill development) - 'Biofeedback Institute' - on the program 'Biofeedback-Based Bioengineering and Medical Devices and Systems'. Now they give training workshops for students and practicing speech therapists on the use of BFB in the work with children, adolescents and adults for overcoming speech disorders [10].

The practical studies on applying BFB are held in the university's defectology laboratory, in which not only the students are trained for the professional activity, but are also run group sessions with the children of 3-4 years [9].

The speech therapeutic BFB complex is designed for the prevention and correction of voice and speech disorders, improvement of the speech functions in children and adults, teaching the reading technique, preventing the effects of stress responses, prevention of the diseases associated with the high speech and psycho-emotional stress, healing the body and increasing the adaptive capabilities. This technology could be used upon stammer, alalia, aphasia, dysgraphia and dyslexia, dyslalia, dysarthria, rhinolalia, phonation disorder as a result of laryngeal cuts and paralysis, functional dysphonias, irregular speech rate, the so-called speech anxiety, speech disorders in the children with hearing and vision disorders.

All the knowledge, acquired in the class by students, solidify, summarize and specificate during the teaching practice.

Teaching practice is an integral part of the vocational training of a speech therapy teacher and holds a prominent place in the training process structure. According to the requirements of the Federal State Educational Standard of the third generation in the 'Special (defectology) Education' specialty, three types of the teaching practice are provided:

- Speech therapy practice in the pre-school education institutions for the children with speech disorders;
- Speech therapy practice in the specialized (remedial) education institutions for the children with severe speech disorders;
- Speech therapy practice in the school speech therapy centres.

The purpose of the teaching practice is to obtain the system of the special educational knowledge, abilities and skills, which allow carrying out the differentiated inspection of speech disorders, planning and executing the remedial and developmental work in the context of a special nursery school or speech therapy groups - a school for the children with severe speech disorders. Teaching practice becomes particularly important due to the modern approach to developmental disorders, according to which the early detection of abnormalities and their overcoming is essential for the effective teaching and bringing up children, as well as their social adaptation and integration among the normally developing peers [4].

Teaching practice could not be successful, if is carried out only as a process of the student's direct, utilitarian adaptation to the teaching reality. Hence, according to the program of the teaching practice students traditionally execute a set of the psychological tasks. It is an important aspect of their vocational training, which allows students to solidify, to extend and to specify the theoretical knowledge, as well as the practical abilities and skills acquired during the training process.

During the practice the students should establish the occupational and special skills, which are essential in training a speech therapy teacher:

- The ability to rationally select and to implement the remedial and educational programs based on the personally oriented and individually differentiated approaches to the people with health disabilities (OS 1);
- The ability to establish the remedial and developmental environment, its methodological support and executing the remedial and compensatory work in the fields of education, healthcare and social protection in order to successfully socialize the people with health disabilities (OS 2);

- The ability to carry out the remedial and teaching activity under the conditions of both the specialized (remedial), and comprehensive institutions in order to implement the integrative education models (OS 3);
- The ability to interact with public organizations, the families of the people with health disabilities, to carry out the psychological and teaching support of socialization and professional identity of the people with health disabilities (OS 4);
- The ability to manage and execute the psychological and educational examination of the people with health disabilities in order to clarify the disorder structure and to select the individual education path (OS 5);
- The ability to analyse the results of the medical, psychological and educational examination of the people with health disabilities using different (clinical, psychological and educational) classifications of the developmental disorders, including the execution of the differential inspection (OS 6);
- The ability to dynamically monitor the progress of the remedial and developmental effect in order to assess its effectiveness (OS 7);
- The ability to provide the tutorial support to the people with health disabilities, their relatives and educators on the issues of learning, development, family education, living and professional identity (OS 8);
- The ability to collect, to analyse and to classify the information in the field of the professional activity (OS 9);
- The ability to plan, to manage and to improve their own remedial and teaching activity (OS 10);
- The ability to use the knowledge of the modern Russian literary language in their professional activity, to carry out the linguistic analysis (OS 11);
- The ability to use the medical records data during the organization and execution of the remedial and educational work with the people with health disabilities (OS 12);
- The ability to create the general culture of the people with health disabilities, and to interact with cultural institutions in executing the educational work with the people with health disabilities and their families (OS 13);
- The ability to perform the work on the public promotion of the therapeutic knowledge (OS 14);
- The knowledge of the etiopathogenetic mechanisms, speech disorder types, the speech defect structure (SS 1);
- The knowledge of the clinical, psychological and educational characteristics of the people with speech disorders (SS 2);
- The ability to carry out a differentiated selection of the remedial methods and to perform the speech therapy work with the people who have speech disorders (SS 3);
- The ability to design the individual remedial programs for the people with speech disorders (SS 4);
- The ability to provide the guidelines for preventing speech disorders in children and adolescents (SS 5);
- To know the nature of the mechanisms, which form the basis of developing and the changes in mental disorders (SS 6);
- To know the symptoms of the main mental and behavioural disorders (SS 7);
- To have the practical skills of timely detecting the first symptoms of mental disorders (SS 8);
- To have the practical skills of the remedial and developmental teaching work upon the identified psychopathological syndromes (SS 9);
- To know the nature of the deviant development phenomenon (SS 10);
- The ability to understand the relationship between the social and family education, the features of the parent-child relationships in the families where the children with mental and physical developmental disorders are brought up (SS 11).

The modern higher education should be focused not only on receiving the complete specific knowledge by a student or accumulating the private skills, but rather on developing the individual cognitive potential, improving the ability to obtain new knowledge, developing creativity and independence in making the important decisions. In our opinion, teaching practice contributes to it.

### 3. Conclusions

Thus, it might be said, that the Department of the Psychology for Special Needs and the Special Needs Education of the Institute of Psychology and Education of the Kazan Federal University ensures the relationship between the learning theory and students' actual practice, what increases their occupational competence. The modern system of the higher therapeutic education is focused on training the graduates as professionally mobile ones, extending their employment potential and providing a wide range of activities within the operation of a certain institution.

We believe that the operational experience of the Department of Psychology for Special Needs and Special Needs Education at the Institute of Psychology and Education of the Kazan Federal University could be a positive example in establishing the occupational skills, which our graduates actively apply in their professional activity. More than 90% of our graduates work in the specialty as speech therapy teachers.

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## References

- [1] Training of specialists for the special education system of Irkutsk Region / T.I. Yandanova, O.A. Vyalukh, R.A. Afanasieva // *Defectology: scientific and methodical journal.* , 4 (2005) 15-19
- [2] Stepanova I.Y. Ensuring the quality of practical training of the future teacher / I.Y. Stepanova, T.N. Boyko // *Higher education today.* -2007. №8: 55-57
- [3] I.A. Nigmatullina and N.I. Boltakova, *Life Science Journal*; 11(11s), 2011, 30-33.
- [4] N.I. Boltakova, *Bulletin of the Tatar State University of Humanities and Education*, 4(26) (2011) 307-311.
- [5] I.A. Nigmatullina, *The Inclusive Education: The Challenges and Opportunities for Its Development in the Tatarstan Republic. Inclusive Education at the Present Stage of Establishing the Innovation School*, Proc. of the All-Ukrainian Research-to-Practice Conference (with the Foreign Scientists Involved), Simferopol. Publishing house: "CEPU" (Crimean Engineering and Pedagogical University) – 2011: 230-234.
- [6] A.I. Akhmetzyanova, *Middle East Journal of Scientific Research*, 16(7) (2013) 927-931.
- [7] A.I. Akhmetzyanova, *World Applied Sciences Journal*, 29(6) (2014) 724-727.
- [8] A.I. Akhmetzyanova, *World Applied Sciences Journal*, 29(6) (2014) 743-746.
- [9] A.A. Tvardovskaya, *Revisiting the Preparation of the Therapeutic Teachers for Working in the Context of the Educational Inclusion*, Proc. of the International Research-to-Practice Conference on 'The Urgent Issues of Psychology for Special Needs and the Special Needs Education: Theory and Practice', Kazan: Otechestvo, 2013. – Vol.7: 33 – 38.
- [10] N.I. Boltakova, *Using the Biofeedback Method within the Lekotek Operation. Education, Psychology and the Inclusive Education Technologies*, Proc. of the Second International Research-to-Practice Conference, Kazan: Publishing house "Poznanie" of the Institute of Economics, Management and Law, 2014: 342-345.