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STUDY AND EDUCATION OF PERSONS WITH SPECIAL EDUCATIONAL NEEDS

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PROPEDEUTIC ASPECTS OF CONTENT AND ORGANIZATION OF WRITING AND READING SKILLS ACQUISITION IN CHILDREN WITH SPEECH DISORDERS

Abstract. The paper deals with the main areas of propedeutics of preventing writing and reading disorders in preschoolers and junior school children. The aim of the article is to describe the content-related and technological aspects of realization of rehabilitation work meant to prevent the difficulties of acquisition of reading and writing skills in children with speech disorders. The leading methods are theoretical (analysis of conceptual approaches to the study of the problem) and experimental (approbation of project materials) ones. The study has resulted in the design and approbation of the content and object-oriented field, a set of standard tasks, and methodological materials targeted at prevention of writing and reading disorders. The authors scientifically substantiate and illustrate with examples both the content-related and methodical part of preventive work with 6-7 year old children with developmental speech disorders. The guidelines take into account different levels of preparation of the risk group children for learning writing and reading. The field of application of research results covers the professional activity of general education teachers aimed at preparation for learning writing and reading by children with speech disorders in inclusive education.

The results of approbation of the suggested teaching guide and the package of tasks to prevent writing and reading disorders have shown their effectiveness and feasibility of introducing them in the educational process. The analysis of the approbation results allows the authors to speak about

good preparation of preschool and primary school teachers for organization of propedeutic activity, which is rationally and successfully provided for with the project materials developed by the authors.

Keywords: propedeutics; speech disorders; logopedics; children with speech disorders; writing disorders; reading disorders; primary school teaching reading and writing; content of the work.

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The problem of propedeutics of writing and reading disorders has been subject to scientific inquiry of many home and foreign scholars but it is still an urgent issue of pedagogy. It is not by chance that the given problem is being so actively tackled by researchers. This situa-

tion is brought about by the change of the priority areas of our home education, by its orientation towards individualization and achievement of lasting educational outcomes [2].

At present, the general education pedagogues (primary school tutors and teachers in terms of this

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paper) set the aim to master various techniques of work not only with typically developing children but also with children demonstrating various developmental deviations.

Education of children with disabilities is organized according to different models, among them inclusive ones.

Children with speech disorders make up a separate category of preschool and primary school children with special educational needs. Organization of purposive logopedic training with preschoolers with speech underdevelopment makes it possible to normalize their oral speech. Nevertheless, the beginning of schooling is a risk zone of disorders of a different kind connected with certain limitations or inability to acquire writing and reading skills. The situation when children who have difficulties in learning reading and writing are not granted special assistance but are given tasks (mostly training ones) not leading to the desired result is, unfortunately, widespread enough. It is especially difficult to separate the natural difficulties of acquisition of new kinds of activity by the child from the problems signaling potential special writing and reading disorders [4].

It is very important for the pedagogue (tutor or teacher) to have a chance to join in the diagnostic, prognostic and propedeutic activity

in the real educational space in order to optimize the process of teaching reading and writing, to build up rational interaction with specialists and parents and to clearly determine the sphere of his participation in this process and its potential effects.

In 2017, on the base of education institutions of Moscow (Secondary General Education Schools No 64 and 1434), we carried out a research aimed at diagnostics, prognostics and propedeutics of writing and reading disorders in children attending the preparatory group and first formers.

The present publication focuses on the problems of optimization of propedeutic activity of general education teachers working with preschoolers and first formers, and on the description of a number of content-related and technological aspects of realization of activity oriented towards prevention of writing and reading disorders.

At the primary stage of our study (within the project under realization), we worked out and approbated a technological chart allowing the general education teachers to reveal risk factors for writing and reading disorders in children aged 6-7 years. 230 preschool children and 280 primary school pupils took part in the experiment.

Diagnostic investigation was carried out in the areas "Oral Speech", "Linguistic and Metalinguistic Skills" and "Non-verbal

Preconditions for Learning Writing and Reading”. As a result, we managed to single out various groups of children with relation to the level of successful completion of experimental tasks [3].

The group of children who demonstrated **an actually significant** level of preparation for learning reading and writing (high scores in all three areas of diagnostics) comprised 38% of those tested. The members of this group showed a prognostically high rank of acquisition of writing and reading skills designated by the school program.

It was characteristic of the children of the second, **potentially significant** level of preparation (32% of those tested) to demonstrate a limited potential of acquisition of the program material in the area “Writing and Reading”. We have referred these children to the conventional risk group.

The children of the special risk group (30%) demonstrated low results in all experimental tasks. Their level of preparation for learning reading and writing was identified as **deficient**.

It is evident that the children of groups 2 and 3 need special attention. And the children of group 3 need obligatory systematic logopedic support or complex intervention of various specialists (logopedist, neurologist, neuropsychologist and psychologist). When it is necessary, the children of group

2 should be also provided logopedic consultations and special lessons. But in both cases, the general education pedagogue can and should start propedeutic work before the specialists intervene, or should cooperate with them if the intervention has taken place.

The data obtained corroborated the urgency of designing propedeutic materials addressed to the child care providers of preschool institutions and the primary school teachers.

The second stage of the project realization consisted in creation and approbation of the methodological materials and a set of standard tasks necessary for conducting propedeutic work aimed at lowering the risks of development of writing and reading disorders.

The basic theoretical suppositions for designing propedeutic measures were the following:

- the psychological conceptions disclosing the interrelationship between thinking, language and speech; ideas about the regularities of psychological development and the complex approach to its study (L. S. Vygotskiy [6], A. A. Leont'ev [13], A. R. Luriya [14]);
- the modern ideas of linguistics and linguo-didactics about the specificity of development of writing and reading skills and the Russian graphics (N. N. Algazina [1], D. N. Bogoyavlenskiy [5], S. F. Zhuykov [8], M. P. L'vov [15], N. S. Ro-

zhdestvenskiy [18], M. S. Solovey-chik [19]);

– the ideas of neuropsychology and logopedics about the character of the processes of writing and reading and the mechanisms of their impairment (O. B. Inshakova [9], A. N. Kornev [10], R. I. Lalaeva [11], R. E. Levina [12], A. R. Luriya [14], O. A. Tokareva [20]);

– the conceptions of special pedagogy shaping the theory and practice of the modern education of children with disabilities able to satisfy their educational needs (E. L. Goncharova [16], O. I. Kuskushkina [16], R. E. Levina [12], N. N. Malofeev [16], O. S. Nikol'skaya [16], T. B. Filicheva [21], G. V. Chirkina [21]).

The analysis of Russian and foreign research and studies, the interpretation of the diagnostic investigation undertaken within the framework of the given project and the generalization of the scientific-practical experience made it possible to work out the guidelines and a set of standard tasks for conducting propedeutic work with preschoolers and first formers. We have taken into account that the guide and the suggested materials can be easily and systematically built into the education process, and the system of propedeutic work is flexible and allows their variable application depending on the child's individual development and the content and tasks of learning.

The subject field of propedeutic work is determined and structured with relation to the above mentioned areas – “Oral Speech”, “Linguistic and Metalinguistic Skills” and “Non-verbal Preconditions for Learning Writing and Reading” – each of which is subdivided into several sections.

The sets of exercises of the area “*Oral Speech*” are oriented towards acquisition of various aspects of oral speech.

The development of *coherent speech* includes:

a) improvement of dialogic speech, which presupposes the development of speech proper (realization of the topic and content of communication and argumentation using utterances of different types and communicative and pragmatic orientation) and speech behavior (communicative purpose, partner interaction, use and understanding of para-linguistic means, conversational formulas, etc.);

b) development of monologic speech including extended answers to questions on a text, detailed retelling, retelling combined with elements of creative nature and ensuring the formation of skills of comprehension, production of coherent strings of utterances, identification of the topic of the text, the subjects of communication, and the significant information elements and establishing predicative rela-

tions and their generalization and creative transformation.

The content of the section “*Formation of the lexico-semantic aspect of speech*” includes work on enriching the individual vocabulary of a person, aimed at improving the associative potential of words, as well as expansion of paradigmatic, syntagmatic and derivational ties of lexical units.

The third section “*Formation of various components of the grammatical system of the language*” comprises tasks oriented towards the development of the skills of identification and actualization of the grammatical (word derivational, morphological and syntactical) units.

Identification and speech realization of the units of the phonetical and prosodic levels (phonemes, phonetical words, intonation contours) are practiced in the section “*Development of the pronunciation aspect of speech*” which contains sets of techniques and exercises objectivizing the development of phonemic awareness, syllabic structure of the word and rhythmic-intonational arrangement of the utterance.

The work in the area “*Linguistic and Metalinguistic Skills*” solves the problems of development of the skills of generalization, selection and categorization of linguistic phenomena, acquisition of different forms of linguistic analysis and

synthesis, as well as semantization of the lexical units.

Three sections are singled out.

Section one – “*Formation of the ability to operate linguistic units*” – includes development of the operations of the skills of generalization, selection, categorization, comparison, etc. (on the basis of such linguistic units as phonemes, syllables, morphemes, lexemes, and syntactic constructions).

The content of section two “*Formation of the skills of linguistic analysis and synthesis*” presupposes the phonemic, syllabic and syntactic analysis and synthesis of various kinds: quantitative, consecutive and positional.

Section three “*Teaching semantization of lexical units*” contains tasks aimed to develop the ability to determine the meanings of non-motivated words in the context and without it.

The area “*Non-verbal Preconditions for Learning Writing and Reading*” also includes several sections.

The development of gnostic visual functions is achieved via completing tasks on recognition of object images (whole, fragmented, overshadowed, or overlapping) and letter stimuli (whole, overlapping, fragmented letters or words).

The formation of visual-spatial orientation is effected through a system of two-dimensional coordinate net and is targeted at percep-

tion and analysis of metrical and topical characteristics of plane shapes and/or images, re-coding stimuli from three-dimensional into two-dimensional space and acquisition of the strategies of viewing visual stimuli preferably from left to right and from top to bottom.

Section three focuses on the work towards *formation of spatial-temporal concepts* which includes perception of time, its units, temporal sequences, understanding simultaneity and temporal heterogeneity of events, their linear character (beginning, continuation, cessation), identification and objectivation of units of time (hour, day, part of day, week, year, etc.), and transition of notions from the temporal code into the spatial one (their representation in the form of lines, dots, broken line, whole-part, etc.).

Section four "*Development of motor functions*" concentrates on the formation of static and dynamic movement coordination and spatial, temporal and rhythmic organization of gross and fine movements of wrists and fingers.

The content of section five "*Development of graphomotor skills*" contains graphical tasks presupposing various kinds of tracing, hatching and copying images of objects and letter and number stimuli and their elements, which facilitates objectivation of coordination, metrical, temporal and rhythmical characteristics of graphical activity, as

well as left-to-right and top-to-bottom copying strategies.

Let us illustrate the content of propedeutic work with preschool children and primary school pupils on the example of the "*Linguistic and Metalinguistic Skills*" area.

The first section "*Formation of the ability to operate linguistic units*" may include the following tasks.

1. *Generalization of the linguistic material* (on the example of grammatical units):

– listen and say what is similar between the words:

a) *kotenok, tigrenok, utenok, zherebenok?*

b) *krasnyy, belyy, zheltyy, zelenyy?*

c) *begal, prygal, igral, chital?*

2. *Selection of linguistic units* (on the example of lexemes):

– listen to the words and select those that name movements: *letit, spit, prygaet, zhuzhzhit, plyvet;*

– choose the words that denote something we hear: *zvonkiy, teplyy, pisklyavyy, belyy, oglushitel'nyy.*

3. *Categorization of linguistic units* (on the lexical and grammatical levels):

– divide the words into groups (looking at the pictures): *chitaet, prygaet, letaet, devochka, ptitsa, derevo, sidit;*

- divide the words into groups (looking at the pictures): *krasnyy*, *kruglyy*, *zelenyy*, *oval'nyy*, *tsvetnoy*, *puzatyy*.

4. Comparison of linguistic units (on the example of phonemes and syllables):

- listen to the sounds and compare them: *U — K*, *M — D'*, *Z — S*, *A — O*;
- listen to the syllables and say what is similar between them and what they differ in: *TA — AM*, *TRA — TAR*, *ZU — LUT*, *MA — MYa*.

The second section «Formation of the skills of linguistic analysis and synthesis» embraces the tasks and their variants made up on the basis of linguistic units of different levels.

1. Sentence analysis (structural, intonational and semantic):

- count the number of words in the sentence; enumerate them in their order in the sentence (the first word, the second word ...); name the third word / the word that comes before the fourth one; what is the number of the word ...

V set' popalsya karas'. Za shkoloy chudnyy sad. Po reke plyvet plot. Borovichok spryatalsya pod elkoy. Masha vyshla na opushku. Solntse skrylos' za lesom (advanced stage material);

- listen to the sentence and find the matching scheme (from those given).

The following schemes are given:

- declarative, interrogative and exclamatory sentences,
- with marked intonation nucleus in various parts of the sentence;

- put up your hand if the sentence is about feelings/movements/weather.

Kotenok ispugalsya i zhalobno zamyaukal. U koshki na shee goluboy bant. / Kuznechiki prygayut v vysokoy trave. Belka zhivet v lesu. / Osen'yu chasto idut dozhd. V sentyabre deti idut v shkolu.

2. Syllabic analysis:

- name the syllables in the words one after another: *pautina*, *vorobey*, *pingvin*, *skovorodka*;
- name the syllables and show the stressed one: *kolobok*, *pugovitsy*, *avtobus*, *kuznechik*;
- say what the number of the syllable *du* is in the words *raduga*, *dumay*, *kakadu*, *zadushevnyy*;
- name the third/fourth/second syllable in the words *sarafan*, *podborodok*, *gusenitsa*, *prochitali*;
- name the syllable that comes before/after the syllable *shu* in the words *zashumel*, *polushubok*, *cheshuya*, *bushuet*.

3. Syllabic synthesis:

- use some syllables to make up a word: *ka, ra, vay; ta, ra, kan; vo, di, chka; po, lo, ska, la;*
- name the first syllables in the words *Masha, lipa, nado*; join them to make up a word (*malina*);
- name the stressed syllables in the words *gora, kadushka, noga*; join them to make up a word (*raduga*).

Similar instructions are formulated and systematized for tasks and exercises for training linguistic analysis and synthesis of other linguistic units (on the phonemic, morphemic, lexical and textual levels).

The third section «*Teaching semantization of lexical units*» is devoted to the development of skills to determine the meanings of motivated and non-motivated words.

Let us give some examples of the tasks:

- explain why the fairy tale characters have such names as: *Toropyzhka, Znayka, Neznayka, Molchun; Zubastik, Zaplatkin; Sineglazka, Beloloby;*
- figure out what is common between the words *khlebnitsa, sakhar-nitsa, konfetnitsa, seledochnitsa; medveditsa, volchitsa, ezhikha, slonikha;*
- guess what object is described: *nebol'shoy lesnoy zverek, gryzun, s pushistym khvostom, ryzhim ili*

serym mekhom; tsvetok s belymi lepestkami i zheltoy seredinkoy;

- explain the meaning of the word (form different lexico-semantic groups): *mukha, kuvshin, molotok, lampa, el'.*

The concrete materials for the tasks, the techniques of work and technologies of building in were differentiated according to the level of education (preschoolers and first formers). In addition, the levels of preparation for learning reading and writing discovered at the stage of diagnostics were also taken into account.

For example, formation of the phonemic analysis skills presupposes the use of different tasks and linguistic material of varying degree of complexity differentiated for preschool children and primary school pupils.

The preschoolers were offered tasks with various perceptive support (one- and multi-colored tokens made of different materials; exaggerated articulation and accented pronunciation of sounds, etc.). The words with accessible meanings, syllabic structure and sounds from the children's active vocabulary were selected for analysis.

The following task variants may serve as an illustration of what has been said:

- name all sounds of a word in the right order pronouncing each sound distinctly: *kusok, salat, akula, kacheli, stakan, truba;*

- lay out as many tokens as there are sounds in the word *udar*, *chi-zhik*, *rubakha*, *griby*, *tanki*, *kartina*;
- lay out the scheme of the word, show and name the second/third/fourth sound: *klyuch*, *paket*, *zamok*, *oslik*;
- lay out the scheme of the word, say what number is the sound *l* in the word *malysh*, the sound *r* in the word *karas'*; the sound *u* in the word *pauk*.

At the advanced level of work with preschoolers, the perceptive support of phonemic analysis is gradually reduced; the tasks are performed mentally.

In the work with first formers, the use of additional perceptive supports becomes optional; the necessity of their inclusion depends on the individual characteristics of the children's cognitive, linguistic and sensory development. Lexical units of various levels of structural complexity referring not only to the real but also to the potential and the learning vocabulary may be used as the factual material of phonemic analysis.

For example:

- name all sounds of a word in the right order: *kuritsa*, *rodina*, *krasnyy*, *prygay*, *martyshka*, *stranitsa*;
- listen to the word and count the sounds: *minus*, *kapkan*, *zvonkiy*, *glukhoy*, *zakras'*, *trampolin*;
- repeat the word and name the second/third/fourth/fifth sound in it: *glubina*, *kiosk*, *brovi*, *skladyyvat'*;

- repeat the word and say what number is the sound *ch/l'* in the word *kacheli*, the sound *r* in the word *udarnik*; the sound *i/t* in the word *ustritsa*;

- repeat the word and say: a) what sound comes before *sh* in the word *mashina*; b) after *k* in the word *shkatulka*; c) between what sounds comes *n* in the word *businka*.

Preschool teachers can use the suggested tasks in the course of work in various education fields, in the process of artistic, construction-modeling and playing activity of children.

Let us see how these opportunities can be used in teaching semantization of lexical units.

Illustrating (drawing objects) in combination with verbal means of semantization can be used at the lessons of drawing and painting:

- the visual image of an object is consolidated in the process of drawing (*draw an apple*);
- the meaning of a word can be defined and acquired via verbal portraying of an object (*kakoe yabloko? — krugloe, zelenoe, s krasnym bochkom, s chereshkom, na chereshke listochek*) or through an extended definition (*chto eto? — eto sochnyy frukt; on kruglyy; mozhet byt' sladkim ili kislym, zelenym ili krasnym; vnutri nego — semechki*).

Reinforcement of the skills and expansion of the semantization models can be realized at the les-

sons of speech development, in verbal games and exercises.

The priority of propedeutic work for primary school teachers is connected with the subject area “Philology” (the course of the “Russian Language”, lessons of learning reading and writing). Apart from this, the system of purposive intervention to reduce risk factors may include the learning tasks for the lessons of the surrounding world, mathematics, drawing, technology, etc.

Thus, the formation of the skills of linguistic analysis and synthesis begins at the lessons of reading and writing. In the context of realization of interdisciplinary ties, this work can be modified and continued on different models of learning texts. Let us look at the example of a text from the first form textbook “The Surrounding World”:

Dnem na nebe možno uvidet' Solntse i oblaka, noch'yu — zvezdy i Lunu. Solntse — ogromnyy pylayushchiy shar. Bol'shaya Medveditsa — odno iz sozvezdiy zvezdnogo neba [17, c. 19].

In the process of pre-textual and post-textual work, the pupils who have demonstrated the deficient or potentially significant levels of preparation to the acquisition of writing and reading are offered additional tasks:

– listen attentively and choose the words that match the word «*solntse*»: *pylayushchiy shar, svetlyy*

krug, zheltyy sharik; explain your choice;

– pronounce the following words clearly and distinctly: *pylayushchiy, medveditsa, sozvezdie*;

– choose the pictures that match the text; place them in the right order (as it is in the text);

– say what we can see in the sky at night (*zvezdy, Lunu, sozvezdiya, Bol'shuyu Medveditsu*).

It should be noted that the content of propedeutic work reflects, on the one hand, purposively designed learning materials, and, on the other hand – learning units referring to various educational fields. The organizational aspects of prevention of writing and reading disorders are realized in the form of individual or micro-group tasks built into all kinds of activity of the learners.

In the article, we have made an attempt to characterize the main areas of propedeutic activity and to show the opportunities of its realization (on the basis of the model of development of linguistic and metalinguistic skills). We have also offered examples of tasks and exercises targeted at reducing the risks of writing and reading disorders.

The guidelines in methods of teaching and the set of standardized tasks in all areas of preventive work have been approbated at the base education institutions.

The results of approbation of the suggested teaching guide and the package of tasks to prevent writing

and reading disorders have shown their effectiveness and feasibility of introducing them in the educational process. The analysis of the appropriation results allows the authors to speak about good preparation of preschool and primary school teachers for organization of pro-pedeutic activity, which is rationally and successfully provided for with the project materials developed by the authors.

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IMPROVEMENT OF REHABILITATION PROCESS ON THE BASIS OF ICT: PRACTICAL EXPERIENCE

Abstract. Application of ICTs by a modern education institution may ensure better results of the system of rehabilitation work with students with disabilities both in terms of quantity and quality of learning outcomes. However, effective introduction of ICTs needs a considerable change in the current educational system. The given article describes the experience of modeling the educational system of a boarding school for children with severe speech disorders on the basis of ICTs including the experience of introducing alterations in the general goals and content of education, in the process of designing curricula and programs, in the specific aims of management of the pupils' activity, in the models of grouping pupils, and in the methods of control, report and procedures of assessment of the rehabilitation-educational process.

The introduction of the discussed model in a concrete educational institution resulted in the transfer of a number of trivial functions that needed hard work of specialists towards ICTs; it also improved the quality of rehabilitation-educational activity in the areas where conventional practice did not obviously guarantee the necessary results due to insufficiency of the data traditionally used by specialists.

Keywords: education system modeling; rehabilitation process; ICTs; effectiveness of rehabilitation process; logopedics; children with speech disorders; severe speech disorders; boarding schools.

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New (higher both in terms of quantity and quality) outcomes of the system of rehabilitation work with students with disabilities are facilitated at a modern education institution by means of introducing information and communications technologies (*hereinafter:* ICTs) [1; 3]. But the efficient introduction of ICTs needs change: in the general goals and content of education, in the process of designing curricula and programs, in the specific aims of management of the pupils' activity, in the models of grouping pupils, and in the methods of control, report and procedures of assessment of the rehabilitation-educational process. The given article discusses the experience of modeling the educational system of a boarding school for children with severe speech disorders on the basis of ICTs.

The stable increase of pupils with severe speech disorders and a complex structure of defect [7] and persisting intensification of labor of the rehabilitation-educational block specialists causing their overload [15], on the one hand, and, on the other hand, the fast development of ICTs of rehabilitation-educational orientation [2; 5; 6; 9; 10; 12; 13; 14, etc.] and the increase of the lev-

el of information and communications competence of the pedagogical staff [15] and other tendencies become important preconditions for specification of the goals of the management of the educational system of an institution. Multiplication of the given tendencies needs the formation of a salient vision of the avenues of the education system development via the transfer of a number of trivial functions, demanding hard work of specialists, towards ICTs and the search for and implementation of new technological opportunities for improvement of the quality of rehabilitation-educational activity in the areas where conventional practice does not obviously guarantee the necessary results due to the insufficiency of the data traditionally used by specialists.

We have singled out peripheral functions in the activity of the specialists of the rehabilitation-educational block of the boarding school, as well as complex functions which need algorithmization due to the multi-level nature of the phenomena of psychological reality and the issuing diversified character of rehabilitation-educational intervention. We have also worked out and implemented the system of op-

timization of rehabilitation-educational work on the basis of ICTs. The content of the ICT elements in rehabilitation-educational work is shown in the table. The created model of the education system is characterized by some peculiarities.

Design of curricula and programs of rehabilitation-educational work is based on the “pupil’s chart” – a software product “Individual Rehabilitation-Educational Route” (IRER) application of which is reflected in the content of the process “Design of curricula and programs” of the quality management system [3]. The IRER is a universal tool. It allows fixing the areas of rehabilitation work with children optimizing in-class and out-of-class activities time; it also helps to organize interaction between specialists, pedagogues and parents. The IRER has a module structure. Filling the IRER in does not take a long time, but helps to collect and use all information necessary for rehabilitation.

Separate ICT elements have been introduced in the previously worked out programs of rehabilitation-educational work of teachers-logopedists and pedagogues-psychologists including:

- computer-assisted indicator complex “VOLNA” for training breathing skills and learning the diaphragmal respiration technique (in cases of the child’s non-organic attention disorders, impairment of working capacity and arbitrary behavior control, logoneurosis, impaired adaptive capabilities, presence of psycho-emotional problems, etc.);
- logopedic trainers “Special Educational Means. First Steps” for correction of the prosodic aspect of speech and development of coherent speech;
- logopedic trainer “Delfa-142” for development of phonic breathing, force of the voice control, correction and automation of pronunciation, reduction of excessive voice nasality and for work with any speech unit – from a sound to a sentence;
- information rehabilitation program “Stalker” for development of a stable life position preventing teenagers from addiction to drugs, alcohol and tobacco; formation of the skills of correct behavior in difficult situations; realization of personal responsibility for one’s behavior and choice of the course of life; development of communication skills, etc.

Table. The content of the rehabilitation-educational work on the basis of ICTs

Blocks of rehabilitation-educational work	Problems (“bottlenecks”) needing new technological solutions	ICT-based solutions
Block of incoming diagnostics and design of rehabilitation-educational process	To carry out multi-factorial diagnostics of speech development of newly enrolled pupils	Hardware and software complex for biological feedback (BFB) produced by the scientific production enterprise “Amalteya“
	To reveal the inner hidden picture of psychological reality, including the risk zones and compensatory potential of the pupils’ psyche	Hardware and software complex produced by the LLC “Biosvyaz“, used to assess the child’s physical state and the regulatory mechanisms of his psyche. The program “Individual Rehabilitation-Educational Route” (IRER). The package “Amalteya Tests“. Information rehabilitation program “Stalker”. The complex BFB “Komfort”.
Block of practical skills	To move to the information-technological periphery (provided there is proper quality control) the training functions that need long-term formation of behavioral skills (diaphragmal respiration skills; skills of relieving excessive psycho-emotional, psycho-physiological tension; techniques of general muscle and psycho-emotional relaxation; muscle awareness; the skill of coordinated consecutive arbitrary regulation of muscle tension; the skill of progressive muscle relaxation)	Hardware and software BFB complexes produced by the scientific production enterprise “Amalteya“. The program “Neyrokor 3.1S”. Hardware and software psycho-emotional BFB complex produced by the LLC “Biosvyaz“. Hardware and software logopedic BFB complex produced by the LLC “Biosvyaz“. The package of psycho-rehabilitation programs “Volna”, “Stalker”, “Ekvator”, “Komfort”, speech rehabilitation program “The World of Sounds”, logopedic trainers “Special Educational Means. First Steps”, “Delfa-142”.

The block of rehabilitation-educational work of the adapted educational program includes rehabilitation-educational programs on the basis of biological feedback (*hereinafter*: BFB) – BFB trainings of various orientation:

- rehabilitation of vegetative disorders, normalization of the vegeta-

- nervous system activity (RSA-BFB-training);
- rehabilitation of the psycho-physical state of the pupil (EMG-BFB-training);
- learning skills of relieving excessive psycho-emotional and psycho-physiological tension, techniques of general muscle and psy-

cho-emotional relaxation and development of muscle awareness (BFB trainings);

- teaching self-regulation on the basis of control of biorhythms of the functional activity of the brain – EEG-BFB (BFB by the parameters of bioelectrical activity of the brain);

- development of the skills of coordinated consecutive arbitrary regulation of muscle tension, improvement of coordination of the movements of eyes and hands, dual coordination of using both hands simultaneously, teaching movement control and precision of movements (BFB training);

- treatment for ADHD, prevention of behavioral deviations in pupils with psycho-emotional disorders (a complex of BFB trainings);

- development of the higher nervous processes, teaching to maintain significant intellectual effort and to concentrate attention (“Brain-fitness” training), etc.

Authored lesson plans in all the above mentioned areas have been worked out and implemented [4; 8; 11, etc.].

The institution specialists in cooperation with the pedagogues of the Chelyabinsk State University have created a trainer aimed at developing attention on the basis of the mobile EEG Holter monitor; work is being carried out on the hardware and software complex on the basis of biological feedback

with innovative principles of remote access and indicators of the patient’s movements; the corresponding methodological guides are being created.

In the course of development of the information technological software for education processes, we have specified *the particular goals of management of the learners’ activity*: we have renovated the mode of rehabilitation-educational activity at the institution – on the basis of analysis of the time of usage of the hardware and software complexes, we have formed the models of grouping pupils according to the principle of provision of the new kinds of services to all those who may need them.

The improvement of the system of rehabilitation-educational work on the basis ICTs involved specification of *the methods of control and specialist report and the methods of assessment of the rehabilitation-educational process*. We have figured out “the bottlenecks” in the traditionally collected data about the course and outcomes of the rehabilitation-educational process and have worked out and selected the criteria and parameters for the new lines of monitoring. The general goal was to establish objective ICT based criteria of assessment of efficiency of the rehabilitation-educational measures. Thus, for example, the efficiency of the EEG-BFB-training was evaluated accord-

ing to the following objective criteria (depending on the EEG type at the given diagnostic stage): increase of the power of alpha-activity and alpha index, and stability of the alpha index in the EEG. The ICTs implemented in the process give the specialist opportunities of automatic interpretation of results after training sessions.

Thus, the specification of the rehabilitation process model on the basis of ICTs demanded revision of the traditional practice and determination of its “bottlenecks”; inclusion of the pupil’s chart in the process “Design of curricula and programs”, introduction of separate information technological elements in the rehabilitation programs worked out before, and implementation of new rehabilitation-educational programs based on the latest hardware and software complexes; renovation of the mode of rehabilitation-educational activity at the institution on the basis of analysis of the time of usage of the hardware and software complexes; modeling grouping pupils according to the principle of provision of the new kinds of services to all those who may need them. The experience of implementation of ICTs in the system of rehabilitation-educational work testifies to the fact that the effectiveness of the education system has grown in accordance with the following strategically important for the institution lines:

the quality of rehabilitation-educational work has improved in the areas where the traditional practice did not allow getting the desired outcomes; new rehabilitation services have been implemented; the opportunities of individualization of education of children with disabilities have been expanded; the staff potential of the institution has been extended by organizing methodological work on the ICTs of rehabilitation-educational orientation.

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FORMATION OF TECHNICAL READING SKILLS IN PUPILS WITH DYSPHAGIA

Abstract. The article is devoted to the formation of the practical skills of reading in schoolchildren with dysarthria. The scope of research embraces the peculiarities of formation of technical reading skills in children with different degrees of severity of dysarthria. The author has studied the peculiarities of reading skills and the technical aspect of reading in schoolchildren of the 1st and 2nd forms using the standardized methods of O. Inshakova. The results have been compared and have revealed the problems of teaching reading. The given research shows that the children with dysarthria read slower, make more mistakes, and their intonation skills lag behind in comparison to the normally developing peers. Preschool preparation of children with dysarthria plays a great role in the reading skills development.

The results obtained should be taken into account by primary school teachers, pedagogues-psychologists, speech therapists and other specialists in designing individual educational routes for schoolchildren with speech pathology under the conditions of inclusive and special education. The peculiarities identified in the study prove the necessity of organization and development of differentiated teaching methods for this category of children.

Keywords: methods of teaching reading; methods of teaching reading at school; primary school teaching reading; children's reading; technical aspect of reading; junior schoolchildren; logopedics; children with speech disorders; dysarthria.

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Introduction. Teaching children to read is one of the global issues of the modern school. According to I. A. Zimnyaya [8], reading is a specific kind of activity the essence of which consists in the unity between its internal and external aspects. The external aspect of reading is a complex skill which characterizes acquisition of its technical side: speed and accuracy of reading ensuring the listener's normal text comprehension. The interior aspect reflects the process of text understanding, which, according to T. G. Egorov, M. R. L'vov, A. N. Kornev and other scholars, includes such moments as integrity and coherence facilitating the appropriation of the information related in the text. The problem is especially urgent for special pedagogy dealing with teaching children with speech pathology, and specifically children with dysarthria. As modern theoretical and practical research shows, the realization of the technical aspect of reading involves both oral speech and visual recognition of the graphic images of letters. The outcomes of acquisition of the primary reading skills depend on the quality of development of these components.

The role of oral speech in learning reading presupposes the presence of all its characteristics: pronunciation, phonemic perception, syllabic structure, active vocabulary, as well as grammatical struc-

ture and ability to build a coherent utterance, which is often impaired in children with dysarthria. Underdevelopment of oral speech in children with dysarthria substantially hampers the process of acquisition of sound-letter analysis and synthesis. Visual-gnostic and visual-spatial disorders do not allow the formation of stable images of letters, syllable and word. This impairs the process of integration of the auditory and visual information necessary for the solution of the technical problem during reading. In this connection, the solution of the problem of formation of the technical aspect of reading with the help of specially designed methods for children with dysarthria of various degrees of manifestation is especially urgent.

The goal of our research consists in studying the process of acquisition of reading by primary school pupils with dysarthria.

The scope of research includes the technical aspect of reading aloud of primary school pupils with dysarthria.

The object of research embraces the peculiarities of formation of the technical aspect of reading aloud in pupils with various degrees of manifestation of dysarthria.

Our research hypothesis poses that children with various degrees of manifestation of dysarthria have different problems in the formation

of the technical aspect of reading aloud; taking them into account, it may become possible to design efficient individual methods of formation of the technical aspect of reading for each category of children.

The following **tasks** correspond to the goal formulated above:

1) undertaking theoretical and methodological analysis of special literature by home and foreign authors determining the theoretical and methodological parts of investigation;

2) choice of research methods of the study of the process of reading aloud by primary school pupils with the clinical diagnosis “dysarthria” and the minimal manifestations of dysarthria;

3) observation of the technical aspect of reading of primary school pupils and identification of the impairments characterizing speed, method, accuracy and expressiveness of reading;

4) formation of the control group (CG) including children with the typical formation of the skill, and the experimental group (EG) embracing children with problems of acquisition of the technical aspect of reading for conducting a comparative analysis;

5) analysis of the results of the experimental study of the pupils of both groups and design of the priority areas of rehabilitation work.

The following **research methods** have been used to complete the tasks set and achieve the goal identified: the methods of empirical investigation: analytical review, method of individual complex observation of primary school pupils, summative experiment; the methods of statistical analysis of results, quantitative and qualitative analysis of the summative experiment data, where the reliable result is $p = 0.001$.

Observation methods. We have chosen the method of O. B. Inshakova including the study of the reading skills and the technical aspect of reading of the first and second form pupils [2]. The procedure of testing reading skills includes 9 tests with the help of which we studied letter recognition, ability to read letters, syllables, short words of various complexity and simple texts.

The study of the process of formation of the skills of the technical aspect of reading in the pupils of the second, third and fourth forms at different stages of learning needs using texts matching the children’s age. We observe the parameters of speed, method, accuracy and expressiveness of reading. A 15-point evaluation scale is used to single out the high, medium, low and zero levels, characterizing the reading skills of the children and the results of their completion of the tasks

aimed at analysis of the technical aspect of reading.

The experimental study was carried out during 2006-2010 on the base of the special boarding school № 4 of type V for children with severe speech disorders and on the base of the general education schools № 14 and № 40 of the city of Vladimir. In the course of observation, we formed the EG (n = 92) and the CG (n = 35) from the first formers aged 7. The CG is characterized by typical speech development. The EG of children with the diagnosis “dysarthria” was subdivided into two subgroups: ES-1 includes pupils with severe manifestations of dysarthria (of pseudobulbar nature) demonstrating general speech underdevelopment (n = 8); ES-2 (n = 84) comprises pupils with minimal manifestations

of dysarthria and logopedic conclusions of general speech underdevelopment (n = 48) and phonemic-phonetical underdevelopment (n = 36).

Research results. The study of the test results of the reading skills of children at the time of their enrollment in form 1 in comparison to the results of the CG shows that the reading skills of the children of ES-1 are formed well, because before school, they had taken a course of logopedic work including preparation to learning reading, according to the parents’ questionnaires. In ES-2, there is prevalence of children with a low level of development of the reading skills.

The results of development of the reading speed in the children of the CG and the EG are shown in table 1.

Table 1. Comparative results of dynamic observation of reading speed (number of characters per minute) in ES-1, ES-2 and CG.

Time of observation	Group	Average indicators	Standard deviation	Significance of differences according to the Mann–Whitney <i>U</i> test
End of form 1	CG	165.97	107.90	p = 0.1
	ES-1	107.62	31.46	
	ES-2	134.10	58.61	
Beginning of form 2	CG	255.91	23.83	p < 0.001
	ES -1	128.38	17.04	
	ES -2	155.73	53.95	
End of form 2	CG	412.77	123.45	p < 0.001
	ES -1	191,14	57,66	
	ES -2	155,73	51,63	

Table 2. Comparative indicators of dynamic changes in the method of reading in the children of ES-1, ES-2 and CG.

Time of observation	Group	Average indicators	Standard deviation	Statistical difference according to the Kruskal–Wallis test
End of form 1	CG	5.29	2.41	p = 0.37
	ES -1	3.75	3.54	
	ES -2	4.94	3.06	
Beginning of form 2	CG	5.00	3.43	p = 0.02
	ES -1	5.00	3.78	
	ES -2	6.73	3.15	
End of form 2	CG	10.71	2.47	p < 0.001
	ES -1	9.38	4.96	
	ES -2	6.73	3.90	

The results given in table 1 show that the reading speed in the groups under observation increases from the first form to the end of the second form.

In the second form, the schoolchildren of the groups under comparison demonstrate a marked increase in reading speed from the beginning of form 2 to the end of school year. The average reading speed of the CG pupils by the end of form 2 is 400 characters per minute, of the ES-2 children – 200 characters per minute, and of the ES-1 children – only 170 characters per minute. It should be noted that the reliable differences ($p = 0.001$) are observed between the two experimental groups which are revealed in the significant differences between the speed indicators. The process of reading of the children of ES-1 and ES-2 with low reading speed indicators is characterized by loss of line and using finger to track

the line during reading. This phenomenon is more frequent in the children of ES-2 who read slower than other children, though similar problems can be observed in the children of ES-1 who often look for the beginning of the next line or the beginning of the next sentence.

The results of the study of the next indicator of the technical aspect – method of reading – are shown for the CG, ES-1 and ES-2 children in table 2.

Table 2 shows that there are no reliable differences in acquisition of the methods of reading between the CG, ES-1 and ES-2 children at the end of form 1. The syllabic method of reading is the prevailing one in the majority of schoolchildren, which is revealed during observation of the pupils at the beginning of form 2. By the end of the second year of schooling, the children demonstrate certain changes. By this time, all pupils of the CG have

mastered a higher level of the skill formation – reading by whole words. The majority of the ES-1 and ES-2 children stay at the same level of the skill formation, and only some children pass on to the next level. At this time, the ES-2 children show significantly better results out of the two experimental subgroups. Here is an example of the method of reading of a pupil of ES-2: “Nash zna/ko/myy okhot/nik shel be/re/gom les/noy re/ki” (read-

ing of short words by whole words and by fusions). And here is an example of the method of reading of a pupil of ES-1: “Na/sh z/na/ko/my/y o/kho/t/ni/k she/l be/re/go/m le/s/no/y re/ki”. The given example shows that the pupil of ES-1 possesses the skill of reading by fusions.

The results of observation of the next indicator of the technical aspect – accuracy of reading – are shown in table 3.

Table 3. Comparative indicators of dynamic changes in reading accuracy in the children of ES-1, ES-2 and CG.

Time of observation	Group	Average indicators	Standard deviation	Statistical difference according to the Kruskal–Wallis test
End of form 1	CG	8.29	4.01	p = 0.75
	ES -1	7.80	5.62	p = 0.75
	ES -2	9.38	4.96	p = 0.75
Beginning of form 2	CG	13.86	2.45	p < 0.001
	ES -1	9.35	4.90	p < 0.001
	ES -2	11.25	3.54	p < 0.001
End of form 2	CG	14.00	2.66	p < 0.001
	ES -1	10.01	4.84	p < 0.001
	ES -2	11.25	5.18	p < 0.001

Table 3 shows that the children of all groups under observation make a large number of errors while reading aloud at the end of form 1 and do not differ in their results from each other (p = 0.75).

At the beginning of form 2, there appear significant differences between the subjects of the whole EG and the CG in the number of errors characterizing accuracy of reading. The number of errors in the

CG children decreases radically, and the errors in the ES-1 and ES-2 children remain to be stable. The comparison between the subgroups of pupils with various degree of dysarthria shows that the pupils of ES-2 make significantly more reading errors (10.6 on the average). All pupils of this subgroup make the following errors more often than others: mixing up letters that look similar; replacing voiceless conso-

nants by voiced ones; mixing up the vowels O — A (*Russian characters*); mixing up the sonorants Л — Н (*Russian characters*), replacing hard velar consonants by hard palatal ones. Insertion of letters and sounds in clusters of consonants is the most frequent error, for example: *golubka* — «*golubooka*», *zakhlopnut'* — «*zakhlopnut'*», *vsporkhnula* — «*vosoporkhnula*», *broсила* — «*borosila*». Word accent errors are made quite often, too, for example: «*kholodnýy*», «*beregóm*», «*such'év*», «*dognála*» «*pryamíkom*». The number of such errors increases in ES-1 by the end of form 2.

Expressiveness of reading does not develop in the EG pupils with dysarthria by the end of the observation period due to the difficulty of transition from the syllabic method of reading to reading by whole words and the difficulties of intoning which are connected with disorders of the process of reproduction of sentence intonation contours. It is caused by the presence of non-coordinated, shallow and irregular breathing and, as a consequence, by the specificity of timbre, melody, intensity and pronunciation tempo while reading a syntagm.

In addition we have noticed that over the whole period of observation of the children with dysarthria (ES-1 and ES-2), in case of difficulties they needed stimulating, emotional-regulatory, orientational and sometimes organizational assistance

on the part of the adult, because the pupils with dysarthria demonstrate frustrating emotions and neurotic responses.

Thus, the comparison of the study results of the technical aspect of reading of primary school pupils with dysarthria of various degrees reveals significant differences from the CG pupils which are manifested in the reading speed, slower development of the productive method of reading by whole words, accuracy of reading aloud and absence of expressive reading.

The comparison of the subgroups of the pupils with various degrees of the disorder manifestation shows that they also have certain peculiarities and differences in all the characteristics of the technical aspect of reading aloud; and this fact demonstrates the need to use the differentiated approach in the rehabilitation work on the reading skills formation.

Conclusions.

- Analysis of the theoretical and methodological literature has shown that the technical aspect of reading is a complex psychophysical process based on the quality of activity of such higher psychological functions as oral speech and visual perception. Investigation of the issues of formation of the technical aspect of speech in children with dysarthria with the aim of designing special methods of rehabilitation intervention is especially urgent.

- We believe that the standardized method of O. B. Inshakova used in our research is the most suitable and informative one among a great number of the methods of investigation of the reading skills of primary pupils with dysarthria. The given method of observation of reading reveals the significant differences between the pupils of the CG and the EG during the period of learning reading in the first and second forms:
 - the reading speed of the EG pupils makes up only half of that of the CG pupils;
 - the process of development of fluent reading by syllables and transition to reading by whole words takes longer time in the EG children, whereas all CG pupils master reading by whole words by the end of form 2;
 - primary school EG pupils make twice as many reading errors as the CG pupils at the end of form 2. The errors have a stable and specific character;
 - in contrast to the CG pupils, the EG pupils do not develop expressive reading due to the prosodic specificity of their speech and difficulties in the formation of the method of reading by whole words;
- while learning reading, the EG pupils need stimulating, emotional-regulatory, orientational and sometimes organizational assistance on the part of the adult.
- The study of the indicators in the two subgroups of the pupils with various degree of manifestation of dysarthria (ES-1 and ES-2) has revealed the following variance and significant differences between the pupils:
 - ES-1 pupils with severe dysarthria begin schooling better prepared to learn reading and writing, which, for a time, has a favorable effect on the process of learning basic literacy and makes it possible to preserve certain stability in the reading skills acquisition. But very soon such pupils begin to experience difficulties in the development of the reading method, speed and especially expressiveness of reading;
 - the reading speed of the ES-2 pupils significantly differs from that of the ES-1 pupils: the ES-2 pupils read slower than other children, and the ES-1 pupils lose the beginning of the line and of the sentence more often than other children;

- the ES-2 pupils with minimal manifestations of dysarthria have significantly better results in the reading method. By the end of form 2, they master reading by fusions with transition to reading by whole words; the ES-1 pupils read by fusions only;
- By the end of form 2, the ES-2 pupils make significantly more specific errors in reading.
- The process of teaching reading to pupils with various degrees of manifestation of dysarthritic disorders is characterized by longer and more detailed training with the help of special techniques and forms of work to develop the speed, method and accuracy of reading. We have worked out the following lines of rehabilitation-educational intervention: formation of positive motivation towards the process of reading that allows keeping interest to learning reading; formation of the phonetical aspect of speech based on specification and differentiation of speech sounds; formation of psycho-pedagogical preconditions for learning reading as the basis of development of the reading skills; formation of the visual-spatial orientations for acquisition of text decoding as a condition for overcoming visual perception disorders; the process of teaching reading proper including design of a

variable individual program aimed at overcoming the problems of mastering the process of formation of the technical aspect of reading by the given child.

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FORMATION OF HEALTH CULTURE AND HEALTHY LIFESTYLES AMONG PRIMARY SCHOOL TEACHERS

Abstract. The article deals with the issues of the primary school pedagogue's health and his role in the process of formation of life values of junior schoolchildren, specifically their attitude to their own health. A number of researchers note that the teacher's activity is connected with nervous-emotional overload which manifests itself in certain psychological and psycho-physiological symptoms. The level of the teacher's health determines the quality of their professional activity; the teacher must also be a model for their pupils in the sphere of health preservation and promotion.

The authors consider the notions of "teacher's health culture" and "professional health". They have carried out questionnaires among primary school teachers of Ekaterinburg and Sverdlovsk Oblast in order to reveal the level of formation of motivation towards healthy lifestyle and the attitude to their own health and the health of their pupils. The questionnaire results show that the pedagogues use various methods and forms of work in order to form health culture and healthy lifestyle in junior schoolchildren, though the role of administration in this area is still inadequate, and the school itself should be interested in healthy teachers and pupils. Some young specialists try to avoid developing bad habits, walk in the open air, sleep long enough, keep to a diet and go in for sports and fitness to preserve and promote their health. Pedagogues aged 26-30 years demonstrate deviations in their dietary plan and nutrition. The development of the teachers' health culture needs support from the school administration, state structures and parents.

The system of modern professional education where the teacher's health is recognized as one of the vital values needs training pedagogues possessing a high level of health culture and capable of applying the knowledge in the sphere of health preservation not only in relation to their pupils but also to themselves.

Keywords: health culture; healthy lifestyle; primary school teachers; primary school; junior schoolchildren; professional health.

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According to the professional standard introduced in 2017 by the Ministry of Labor of the Russian Federation, one of the professional functions of the pedagogue of the primary general education consists in formation of the culture of healthy and safe lifestyle in their pupils [16].

E. A. Rudenko (2011) believes that the pedagogue's personality is viewed upon as an important condition determining the effectiveness of the education process and its quality [18]. There is no doubt that the teacher, as well as the parents, should take part in the process of formation of the system of life values of junior schoolchildren, specifically their attitude to their own health.

We agree with the opinion of a number of scholars (A. A. Pecherikina, 2011; L. N. Mitina, 2015; N. N. Belousova, V. P. Mal'tsev, 2016, etc.) that in the system "teacher – pupil – family", the pedagogue plays a significant role in

the orientation of the participants of pedagogical interaction [6; 15; 17]. Therefore, the success of the pedagogical activity does not only depend on how the teacher can coordinate their own behavior, actions, words, emotions and feelings but also on the state of their physical and spiritual health, as well as their social well-being [*as cited in:* 15, p. 14]. In the long run, it determines the effectiveness of cooperation in the system "teacher – pupil – family". The conception of the authors mentioned above agrees with our own data on the problem [8].

The processes taking place in modern education (amalgamation of education institutions in large complexes, introduction of the federal state educational standards of new generation, introduction of the professional standard of the pedagogue, creation of the open educational environment, etc.) lead to intensification of labor and raise the professional requirements for the primary school teacher.

A number of researchers (O. A. Anisimova, 2005; I. A. Novikova, M. S. Zekhova, 2011; N. A. Bazhenova, 2015, etc.) argue that the professional activity of the pedagogue is one of the most strenuous jobs both in the psychological and the social aspects: teacher's work belongs to the group of professions with a large number of stress factors [5; 13; 14].

Some authors (M. A. Ivanova, T. A. Plotnikova, 2015) have figured out that the week's working load of the teacher constitutes 70.5 hours, which is almost twice as large as the established norm for this category of workers; i.e. the teacher's working day lasts more than 11 hours. The same authors note that more than 76% of the Russian pedagogues have irregular meals, more than 90% of the teachers suffer from nervous-emotional tension at work, and the respondents report that they cannot have proper rest at night (they have less than 7 hours of sleep); more than 50% of the participants consult a doctor once or twice a half-year or even once or twice a year; and more than 45% of the teachers resort to self-medication [10, pp. 2—3].

A. I. Anisimov [2] argues that after 15-20 years of pedagogical activity, the teacher finds himself/herself in the state of a psychological crisis – they have frequent nervous breakdowns and develop symptoms of psychological and psychophysiological disorders: de-

personalization and propensity to underestimate their professional achievements and potential. There emerges the risk of professional burnout, and, as a consequence, of impairing the teacher's psychological well-being and health [2]. The teacher's work exhausts the person both psychologically and physically.

E. V. Mettus points out that a significant number of teachers have no motivation towards health promoting pedagogical activity and care of their own health; what is more, they do not possess the necessary knowledge and skills in this field [12].

In her analysis of the factors influencing the teacher's health, N. N. Malyarchuk writes that such factors often include the personality traits of the teacher: absence of motivation towards healthy lifestyle, low level of self-organization and effective use of the working time [11]. The pedagogue has poor skills of health preserving activity because they do not realize its importance.

The same author mentions that, unfortunately, the majority of teachers treat health as something dynamic and hard to achieve and shift the responsibility from the person to external conditions, unfavorable social environment and the like, or consider health as something once given and impossible to change [*Ibid.*].

As many authors state (E. G. Stepanov, R. M. Fasikov, N. A. Diden-

ko, 2011; O. F. Zhukov, N. S. Ros-soshanskaya, 2011; L. F. Savinova, 2012; V. S. Akimova, I. B. Ishmukhametov, 2012; N. A. Bazhenova, 2015; M. A. Aslankhanov, 2016), the issue of the health of the pedagogues as a separate category of persons has been neglected for a long enough time, and the quality of education has not been associated with the level of the teachers' health [1; 3; 5; 9; 19; 20]. At the same time it is quite clear that the teacher with a high level of physical and psychological health, who cherishes the values of healthy lifestyle, is capable to perform their duties more professionally. They could effectively cope with the stresses of the modern school medium, live a long and active pedagogical life, and become a model for their pupils translating their experience in the field of health preservation and promotion.

According to A. I. Bel'skaya, the teacher has no right to treat their health light-mindedly: they are role models and should be responsible for the consequences of their experience imitation, and the school should use the unique opportunity to form the healthy lifestyle of all the participants of the education process in the system "teacher – pupil – family" [7].

Taking all this into account, the scholars define the notions of "teacher's health culture" and "professional health".

N. N. Malyarchuk defines the health culture of the teacher as the subject of professional activity in the capacity of a sophisticated multi-component personal construct targeted at the complex solution of the problems of preservation and promotion of the health of the students, the pedagogue himself and including the culture of personal health and health promoting pedagogical activity [11, p. 6].

E. V. Mettus notes that the teacher's health culture is an integrative personal construct represented by the unity of axiological, technological and personal-creative components, characterized by a high level of acquisition of valeological knowledge and skills, well-formed value-oriented attitude to health, healthy life style, ability to reflect their life activity and salient orientation of the professional-pedagogical activity towards health preservation, promotion and formation [12, p. 38].

E. A. Bagnetova, I. V. Sorokun, O. L. Nifontova believe that the health culture is a constituent of the general system of culture, and its development is a pedagogical problem the solution of which is achieved via the process of education and upbringing [4, p. 309].

Thus, all the above mentioned authors regard health culture as an integrative personal construct, as a constituent of the health culture of the whole society, possessing socially significant value, as well as a

factor of the personal health of the pedagogue, which makes it possible to speak about their high working capacity and professional longevity; what is more, the teacher's health culture is an inseparable factor of the process forming the health culture of the students.

A. G. Maklakov (2001) argues that professional health is a certain level of health characteristics of the specialist meeting the demands of professional activity and ensuring its high effectiveness [*as cited in*: 15, p. 14].

L. M. Mitina defines the professional health of the teacher as the ability of the organism to preserve and activate compensatory, protective and regulatory mechanisms ensuring the working capacity, efficiency and personal development of the teacher under all conditions of their professional activity [13].

A. A. Pecherkina interprets the teacher's professional health as a state of the organism ensuring the working capacity, competence and constructive personal development of the teacher at all stages of professional growth [15, p. 15]. In our opinion, there is direct connection between the teacher's health culture and their professional health.

It should be noted that the current system of higher education and the system of advanced training are basically oriented towards training specialists in the field of concrete sciences and methods of teaching,

whereas the issues of personal development of the pedagogue remain "outside the parentheses" [15]. It means that the teacher may possess the necessary volume of knowledge in the field of human health preservation, but may fail to know how to use it in the real academic process, and, what is still more important, how to apply it to himself, in order to preserve his professional longevity.

In order to reveal the level of formation of motivation towards healthy lifestyle and the attitude to their own health and the health of their pupils we have carried out questionnaires among primary school teachers of Ekaterinburg and Sverdlovsk Oblast. 61 female pedagogues between the ages of 20 and 40 years took part in the experiment. The contingent of the participants is shown in the table.

More than 50% of respondents of all age groups answered the question about the necessity of further knowledge about promotion and preservation of their health in the affirmative. It was only in the fourth age group of teachers that the number of positive answers was less than 45%.

Interesting answers were given by the pedagogues of different ages to the questions about the sources of information on how to take care of their own health and the health of their pupils. It has been found that 73.6% of the teachers of group 1 regard mainly specialists as sources

of such information – doctors, psychologists and pedagogues; 57% of the teachers of group 2 get this information at sittings of pedagogical councils and methods departments; the specialists of the fourth age group receive information about healthy lifestyles mainly from mass media (the number of such peda-

gogues totaled 65%). It should be noted that less than 15% of respondents of all age groups mentioned the leading role of the education institution administration in spreading information about preservation and promotion of the health of the pupils and the pedagogues.

Table. Categories of questionnaire participants

Age (years) and age group	Pedagogical experience, years	Proportion of the total number of respondents, %
20—25 (age group 1)	1—5	31.3
26—30 (age group 2)	6—9	22.9
31—35 (age group 3)	7—16	22.9
Over 35 (age group 4)	7—22	22.9

The following answers were received to the question about the most popular forms of work with primary school pupils on the issue of health preservation: 71.4% of the respondents say that more often than not they organize preventive talks on the problems of healthy lifestyle and disease prevention. The fact that 52.6% of young teachers discuss the questions of health preservation at the lessons and via out-of-class activities (contests, lessons of health culture, excursions, etc.) is interesting enough; 50% of experienced teachers believe physical fitness events and games to be more popular.

About 40% of the respondents, when asked about the most efficient methods of formation of healthy lifestyles, mentioned the teacher's role model for the children. Physical fitness activity was ranked second in significance. 10.5% of young pedagogues place great importance on the out-of-class activities aimed at formation of healthy lifestyles among pupils. The more experienced teachers consider the work with parents and training family members on the topics connected with health preservation to be more significant. The fact that only 4.9% of all those interviewed believe that it is necessary to train pedagogues for effective work on

the issues of health preservation causes our concern.

Almost 79% of the teachers note that the state of the health of contemporary schoolchildren is not satisfactory and deviates from the norm, and show well-grounded concern about their health.

Among the most important factors influencing the formation of the modern children's health culture, the experiment participants named the following: family (from 71% to 92% in each age group), second in significance (from 36% to 50%) – the system of preschool and school education, third in significance (26.5%) – the Internet.

Only two respondents evaluated the state of their health as “excellent”; the majority of those interviewed consider their health to be “good” or “satisfactory”, and the negative evaluation is mostly found in the second age group (42%). 35.7% of the specialists of the older age group express health complaints.

In order to promote their health, young specialists try to spend more time in the open air, avoid addictions and sleep well; in addition, they prefer to keep to dietary plan and nutrition. 71% of the teachers of the second age group go in for sports and fitness. The specialists of all other age groups do very little physical exercise, as sports are not popular among them. Only 24.4% of the respondents keep to the daily

schedule, 26.2% consult doctors regularly and follow their advice.

Practically more than half of the teachers of all age groups confessed that their dietary plan and nutrition were not ideal or did not match the age-related norms. It should be noted that such eating habits are found in the teachers of age groups one and two, which makes up 78.5 and 64.2% respectively.

The fact that only 47.5% of the teachers have breakfast before work, 36% do it irregularly, and more than 16% do not have breakfast at all causes our special concern. And more often than not, it is the pedagogues of the second age group that have no breakfast at all (28%).

Summing up the questionnaire results it should be noted that the majority of the primary school teachers demonstrated low health indices and inadequate level of health culture, because they do not abide by one of the main principles of the healthy lifestyle: they violate the dietary plan and nutrition.

The young pedagogues, with no practical experience of application of health preserving technologies at school, use a number of various methods and forms of work aimed at the formation of healthy lifestyle and health promotion, whereas the teachers of groups three and four use a limited variety of health preserving techniques.

Normal functioning of the modern education system is impossible without health preservation and promotion and without development of the health culture of its participants, both schoolchildren and pedagogues. A teacher with physical and psychological disorders is unable to perform their professional duties efficiently and effectively. In this connection, it is important that not only the teacher but also the institution should be interested in a healthy worker.

Socio-political, legal and economic support and assistance in professional, including health preserving, activity of the teacher on the part of the institution administration, state structures, social institutes and parents are the necessary conditions of formation and development of the pedagogues' health culture.

Thus, one of the leading tasks of the modern system of professional education consists in training the pedagogue, including the primary school teacher, with a high level of health culture, capable of using the principles of healthy lifestyle in practice, including the activities for rational organization of their labor and rest, organizing the process of self-education and search for optimal solutions in the field of healthy lifestyles, actively involving the pupils and their parents, and organizing dissemination of various methods of health promotion.

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FORMATION OF POSITIVE SOCIALIZATION AMONG LEARNERS WITH SPEECH DISORDERS

Abstract. The article discusses the current state and prospects of functioning of the innovative platform of the Federal Institute of Education Development (FIED of the Ministry of Education and Science of the Russian Federation) opened on the base of a boarding school. It also substantiates the social significance of the problem of “formation of positive socialization of learners with severe speech disorders”. The goals of the educational organization development program (education and socialization of students) are specified. The authors describe a new component of upbringing adequate to the problem under solution (via the triad “What? – How? – What kind of?”). The article specifies the content of the phenomenon of “upbringing” as a method of social intervention in the process of human socialization. The authors offer innovative instrumental content of professional-pedagogical activity (social intervention) of teachers and parents in the process of socialization of students and pupils for discussion. The study determines the objects and subjects of social intervention: children and parents (family). The novelty of the proposed scientific, methodological and instrumental support for educational work (intervention on socialization, evaluation, measurement and fixation of the student’s social status) has been proved. The article provides a description of the effect of the implementation of innovations for students, teachers, managers and parents. It suggests new terminology of special pedagogy and specifies such concepts as “actor”, “action”, “temporary standardization of the content of socialization,” “innovation,” “innovate,” “patriotism,” “act,” “socialization,” “social intervention”, and “methods of activation of the participation of parents in socialization of children”.

Keywords: actors; logopedics; children with speech disorders; severe speech disorders; socialization of children; monitoring; patriotism.

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The tasks of the innovative platform

Under the Federal Law "On education ...", our institution (Chelyabinsk Special (rehabilitation) General Education Boarding School for Children with Disabilities (severe speech disorders) № 11) functions in accordance with the Development Program for the period up to 2018.

We believe that the general goal of the program of *development* of any education institution [11] consists in the *development* (improvement of quality and variety) of educational and social competences of learners. As a matter of fact, any education institution is created in order to educate and socialize persons who are taught and brought up in it, and two processes are organized with this end in view: education and upbringing. Our research suggests that education prepares a person for activity, and upbringing – for action [1; 7; 8; 9; 10; 12].

The following two tasks should be completed in order to reach the general goal of the Program:

1) *improvement of effectiveness of*

the socializing activity of pedagogues in the area of formation of positive behavioral competences of students;

2) *implementation of innovative technologies of socialization alongside realization of educational programs of preschool¹, general, special and supplementary education.*

As long as the realization of these programs brought about the necessity to look for their instrumental support, we sent an application to the Federal Institute of Education Development (FIED of the Ministry of Education and Science of the Russian Federation) with the request to open a Federal innovative platform on the base of our education institution headed by B. V. Belyavskiy [1].

The purpose of our innovative activity was defined as *design and implementation of the instrumental support for the formation of the positive social competences in pupils and persons under care (including preschool age children).*

The scope of our innovative activity covers the process of socialization of pupils and persons under

care. It is necessary to underline that we have innovated in several directions at once, and one of them consists in innovation of the process of upbringing with special accent on *socialization*. Then we specified the object of innovations by focusing on *the instrumental support for the formation of the positive social competences* in our pupils and persons under care.

Such interpretation of innovative activity is substantiated by our understanding of the exceptional **social significance** of the project. We proceeded from the importance of such normative documentation as: 1) “Development Strategies of Upbringing Children for the period up to 2025”; 2) Federal Law “On Education in the Russian Federation” (Articles 44, 89, 97) [5]; 3) FSES for SSE; 4) “Civil Society Development Strategies in Southern Urals”; 5) State Programs of December 30, 2015 № 1493 “Patriotic Education of the RF Citizens in 2016-2020”.

It should be emphasized that the social significance of the project also rests on the necessity to overcome the “collapse of values” [14], about which President Putin spoke in his Presidential Address on December 12, 2012.

Problem under solution

In the Presidential Address mentioned above, V.V. Putin also speaks about the need to create *an up-to-date upbringing component*

[14] in each education institution [1; 13].

The problem of its design consists in the fact that in the present society and, consequently, in education, there is, first of all, no clear concept of the standard content of socialization, i.e., there is no normative response to the question: *What is to be brought up?*², and, second, there is no answer to the question: *How should socialization be measured and evaluated?*³. Meanwhile, the creation of the new upbringing component presupposes “implementation and efficient usage of new information services, systems and *technologies of upbringing and socialization* of children and teenagers” [13, p. 12] (*italics added — N. V., S. M.*).

That is why we believe that the innovative *upbringing component* should have standard answers to the following standard questions:

- 1) What values (social competences) are to be brought up (formed)?
- 2) How are we to do it: a) adequately (to challenges), b) economically (taking into account the current socio-economical conditions), c) operationally (ensuring comfortable *for the pedagogues, children and parents* social intervention in the socialization of all the subjects of the socialization-educational process)?
- 3) How to record increase/decrease of positive socialization?

These questions may be supplemented with the following explanations.

To answer the first question is to define the *standard complex of social competences*, i.e. *the standard content of socialization*. President Putin has already standardized *responsibility, public spirit and spiritual values* calling them the main properties of the Russian citizen, therefore the choice of the standard content of socialization should be carried out, first, proceeding from the “spiritual links”, named in the Presidential Address of December 12, 2012; second, – from the competences designated in the State Program “Patriotic Education of the Citizens ...” (30.12.2015).

Nevertheless, until such standardization has been accomplished by the Ministry of Education and Science of the Russian Federation and the Russian Academy of Education, we suggest, drawing on Articles 44, 87 and 97 of the Federal Law “On Education in the Russian Federation” [5], *a variant of provisional standardization of the socialization content: standard competences can be determined for each concrete group of learners (persons under care) on the basis of the social order of the learners themselves and/or their parents*⁴ [1; 3; 7].

To answer the second question is to standardize the methods of social intervention in the socialization of the learners (persons under

care), i.e. the forms, methods, techniques and means of upbringing; to systematize all the methods available, and on this basis to create albeit provisional (temporary but standard) taxonomy (classification) of the means of upbringing. We have already tried to carry out standardization based on *what the child should now, what he should be able to do and how he should act in reality* [1; 2; 7].

To answer the third question is to standardize the procedures, forms and instruments of recording (assessment) increase/decrease of manifestation of the positive social competences. And in this case, our act theory is the basis for designing instrumental support [9].

We have long been defending our own point of view that the new “upbringing component” should be able to answer three questions: “What?”, “How?” and “What kind of?”. And all interested parties – the child, the parent, the pedagogue and the state – should get answers to these questions [10].

Not once have we noted [7; 13] that the current “upbringing component” in schools, kindergartens and similar institutions predominantly answers the question “How?” and finds its reflection in *the plan of pastoral work in the form of a list of events over a certain period*. We suggest answering the questions “What?” and “What kind of?”. So we offer instruments

to fill these gaps (1) *what we are to bring up*, and 2) *how we should record socialization*), and this is what the novelty of our project consists in.

Scientific and practical significance of our innovations

Approbation of the instrumental support for the formation and assessment of the positive social competences, such as “responsibility”, “public spirit”, “passionarity”, “patriotism”, “readiness to defend” and other “spiritual links” will result in:

- systematization of the content and organization of upbringing to solve local and global problems of the “value-related and demographic crisis” (V.V. Putin) [14];
- improvement of manageability of socialization in the education institution and family;
- enhancement of reliability of the information obtained;
- improvement of efficiency (on the background of labor costs economy) of the pedagogical staff;
- improvement of effectiveness of management of the competence of the staff.

Target groups (audience)

Within the framework of innovating, we have also identified the objects of social intervention proceeding from the fact that without the family’s participation (that of the parents), the effectiveness of the pedagogical intervention only (form tutors, social pedagogues and psychologists) goes down [2; 15]. Therefore the intervention should be aimed at two objects simultaneously:

- 1) family (parents)⁵;
- 2) social group inside the education institution (group, class, section, circle, social movement, detachment, team, etc.).

And the dual intervention should be supported by proper pedagogical instruments.

Instrumental innovation support

We carry out approbation (Table 1) and design (Table 2) of two groups of instruments at our innovation platform:

- 1) social intervention (influence, interaction);
- 2) record of increase/decrease of manifestation of social competences.

Table 1. Approbation instruments

Name of procedure	Purpose of procedure
Choice of socialization content (CSC)	ensures choice of referent group competences fixing the social order of children and/or parents [7; 12]
Socialization assessment (SA)	supports mutual assessment (record of actions) of the qualities of each member of the group [7; 12]

Table 2. Design instruments

Name of procedure	Purpose of procedure
Video-self-teach (video-didactic-intervention)	ensures quick change of the vector of the child's and/or parent's socialization [4]
Socialization lesson	ensures expansion of concepts about positive competences (ways of positive behavior)

Innovation effects

For over a decade since the start of innovations in the social environment of the boarding school, we have witnessed changes in the manifestation of the positive social competences in families, social groups (classes, circles, sections and other unions), in adults and children, and this information has found reflection in our publications [1; 2; 4; 6; 7; 9; 10; 12].

Innovations bring about positive changes in the following objects:

First object – “*pedagogue*”. All actors⁶ have an opportunity to optimize their activity having acquired and implemented the economical, adequate and operational instruments: a) a set of methods of intervention in socialization of learners (persons under care) and its assessment; b) inclusion of learners and parents in the process of socialization (in particular, in the procedures of (1) choice of socialization content and (2) assessment of socialization); c) getting reliable information about the state of socialization of the learners (persons under care); d) informing learners and parents.

Second object – “*learner*”. The learners take part in the expert selection of the qualities referent for

them within the framework of formation and formulation of the social order for the pedagogical staff and management of the boarding school. The selected qualities actually serve as the qualities of the desirable social environment. This description is formulated by the learners, and therefore is accepted by them as comfortable, as it has not been imposed on them from the outside, for example, as it traditionally happens, by the pedagogues (adults). In social groups (*parents of preschoolers and schoolchildren, persons under care of the preschool department, learners of the schooling age*) there forms an intention to turn this description⁷ into reality, into creation of comfortable social space by common effort. It is this fact that allows creating adequate conditions for receiving and comfortable appropriation of the content of general education.

The learners (persons under care) master various methods of activity. And all these new methods of social interaction and mutual intervention are accompanied by application of concrete instruments: (a) acquisition of positive social competences; (b) mutual intervention and assessment; and (c) indi-

vidual (group) socio-educational projects.

Third object – “manager”. The boarding school management receives an opportunity to collect a database about 1) the social order of the learners (persons under care) and parents; 2) socialization of the learners (persons under care) and adults (pedagogues, parents); 3) the complex of the instruments to analyze effectiveness of educational-socialization technologies (in particular, social projects); 4) special programs of in-service training (within the framework of methodological activity in the education institution).

Fourth object – “parent. Today, the parent is excluded from the education process. And this happens so because of a methodological mistake, when education is defined as *upbringing and academic training*. This means that both are in the sphere of responsibility of the education institution only. In reality, if we separate education⁸ and socialization, we will see that the parent cannot take part in education (academic training) but is obliged to participate in socialization (upbringing) (in accordance with the Federal Law “On Education in the Russian Federation”, Article 44). But as long as the parent is not included in the process of socialization⁹, he remains to be an observer from the outside, a spectator, and even a strict critic of the pedagogues, saying: “*You are paid for it! Now go*

and bring them up!” And this parents’ position transforms itself into the position of the whole society in relation to the system of education as a whole. There emerges a contradiction – the contradiction between “they” and “we”. And it should be resolved by involving the parents in the socialization-educational process.

Much of what has just been said can be found in the existing scientific research [1; 2; 3; 4; 7; 8; 9; 10; 11; 12], but in addition to this, we are ready to demonstrate the methods of *activation of the parents’ participation*:

1) in the formation and formulation of the content of socialization of the learners;

2) in the assessment of socialization of their children in the education institution and family;

3) in realization of projects in a) the institution, b) the family, and c) other social environments;

4) in taking well-grounded parents’ decisions (*on the basis of assessment results (n. 2 — see above) of the actual social status of all members of the social group of peers*) on the basis of socialization of their child on the whole and for each competence separately.

Preparedness of the pedagogical staff for innovative activity

As long as we have outlined the distinction between the two parallel processes (*see above*), the pedagogical staff should be by all means

well-prepared for participation in the process of both (a) educational and (b) socializational innovating¹⁰.

The new social order [5; 16] orients the pedagogue towards initiation of positive behavior (action), therefore the pedagogue should be equipped with instruments to assess this socio-educational object. As we know, a complex of actions is a characteristic of socialization. Without measuring this educational object, without its assessment and recording, the pedagogue acts “at random”, i.e. he does not possess enough of the necessary information to make organizational-pedagogical and managerial decisions, and to realize pedagogical and/or social intervention in the process of socialization of a group of learners and of each learner in particular.

To fill this gap, beginning with 2006, we have organized in the boarding school a series of trainings for the pedagogical staff on acquisition of new methods of social intervention [6; 7; 10; 12], upbringing (tables 1 and 2), influence and assessment.

Significant results

Design and verbal description of the model of the new “upbringing component” in the boarding school was the main result of activity of our innovative platform. All the constituents of this model are stage-by-stage equipped with instrumental support, and the pedagogues receive various instruments reducing their

labor costs and increasing the effectiveness of their pedagogical intervention (interaction).

Thus, the answer to the question: “What are we to bring up?” is supported by the procedure of “Choice of socialization content”. The answer to the question: “How are we to bring up?” is supported by the procedures of 1) «video-self-teach», 2) “socialization sessions *homeroom* of three types”, 3) «audio-self-teach», 4) «images-self-teach», 5) “project method”¹¹. The answer to the question: “What is the level of socialization?” is supported by the procedure “Socialization assessment”.

Thus, the problem, for the solution of which our project has been initiated, is being solved via supplying each constituent of the institutional “upbringing component” with proper instruments. This process is slow and presupposes expert assessment of each new instrument, its approbation and only after that – its standard setting and standardization at each new stage of development. This process takes place at the institutional level at our boarding school only, but we would like to offer this algorithm to our colleagues. We will provide now an example of organization and content of work on assessing patriotism of the learners.

Assessment of the pupils’ patriotism

We have paid special attention to patriotic education of young peo-

ple beginning with 2016 in connection with the adoption of the government of the Russian Federation of the state program “Patriotic Education of the RF Citizens in 2016-2020” on December 30, 2015. The government believes that the implementation of this program should increase the manifestation of *patriotism*¹² of the citizens and, specifically, our learners (persons under care) by 8-10%.

We have worked out new instruments for measuring increase of patriotism in our learners (persons under care). The instruments include an expert sheet (table 3) and a form for recording the results of expertise.

All learners and all parents¹³ take part in evaluation of the pupils’ qualities named in the expert sheet. The newly obtained results are compared with the ones recorded in autumn – in 2016 and 2017. This comparison allows recording the change (increase or decrease) in the manifestation of positive social

competences [3; 4; 11]. Evaluation is based on the number of actions [9], and quantity, as we know, turns into quality, in the increase of the quality manifestation and/or a competence of a higher social status: for example, from *punctuality* to *discipline*; from *discipline* to *responsibility*.

And even now we can carry out primary analysis of our innovations, make conclusions and managerial decisions adequate to the completion of the social order of our priority partner – parents.

In the 2017/2018 school year, we plan to undertake expert evaluation of the increase (decrease) of patriotism manifestation in the pedagogues and all pedagogical workers, as well as the parents. We would like to offer this methodology to parents for family usage. We believe that each parent is interested in their child’s readiness to “respect”, “defend” and “create” (table 3 and note 13).

Table 3. Expert sheet form for assessment of patriotism

Expert sheet

Dear _____
(first name, family name)

You are expected to give voluntary assessment of manifestation of the qualities of the children with whom you communicate. You are asked to write the evaluation score of **manifestation** of each quality (column 2) for each of your **peers**.

Write in rows 1–3 (qualities: boys; girls) in columns 3, 4, 5, 6, 7 etc. the **score — from 1 to 10**, reflecting your subjective opinion about the manifestation of each quality in each person. If you are **not** sure, put the sign «-» in the corresponding cell.

ATTENTION! The score should reflect the number of **actions** in which the quality was manifested **with relation to you**.

№№	Qualities (social competences) of the boys	First name, family name													
		3	4	5	6	7	8	9	10	11	12	13	14	15	
1.	created (did something)														
2.	expressed respect														
3.	defended														
№№	Qualities (social competences) of the girls	3	4	5	6	7	8	9	10	11	12	13	14	15	
1.	created (did something)														
2.	expressed respect														
3.	defended														

Scaling, prolongation and perspectives of innovations

We see our task in the organization of the pedagogues' and the

parents¹⁴ acquisition of the procedures included in our *new upbringing component*. Lessons for pedagogues and parents are basically

held in the form of practical sessions on mastering innovative methods of social intervention¹⁵.

The methodological and didactic materials on creation of conditions for development of the positive social competences in the learners (persons under care) and for assessment of their socialization that have passed practical test within the framework of innovation activity may be used in design and realization of the socialization-educational process in the educational programs of preschool, general, special and supplementary education.

On this basis, the Pedagogical Council adopted the decision to orient the pedagogues (primarily form mistresses and tutors) and the boarding school management towards shifting the stress in pastoral activity onto the formation of social (civil, patriotic and passionary) competences of the learners, pedagogues and parents adequate to the modern socio-economic and geopolitical situation.

Notes

1. Preschool department has been functioning at our institution since 2012.

2. In the Soviet society, such standard content of socialization was defined by the Moral Code of the Builder of Communism, in religion – by Christian commandments, in Confucianism – by traditions, in Zen Buddhism – by Bushidō, etc.

3. Now, in connection with implementation of the state program “Patriotic Education ...”, this question has become even more urgent and has taken the form “How are we to assess patriotism?”

4. Schoolchildren can and should take part in the expert selection of the positive competences. The parents can also be engaged to selection so that they might compare their choice with that of their children. As far as preschool children are concerned, the choice of the desired qualities (competences) is the responsibility of the parents. And, perhaps, of other adults. This is in compliance with Article 44 of the Federal Law “On Education ...”.

5. The shift of stress towards work with the family may allow activating the parents’ participation in the process of socialization and upbringing.

6. We think it irrelevant to use the posh word “igrok” (Russian for *player*) to refer to a participant of socio-political activities. Because the politicians do not play cards or draughts – they decide the fates of peoples and countries. And as long as we do not *PLAY games* but honestly bring up young people, it would be more appropriate to refer to ourselves using the words “subject” or “actor” – people who exercise influence or take part in interaction. An actor is a person who performs useful action. It is derived

from the word “**activity**” and denotes a person who performs some kind of action. Actors include pedagogues, psychologists, logopedists, doctors, sociologists, managers, and technical staff.

7. Let us once again stress that this description was suggested by the children themselves and by their parents (the CSC method – *see*: Table 1). And, as long as it has not been imposed from the outside but goes kind of out of the social group, it is treated by the members of this referent group as personally significant. In this way we create positive motivation (D. N. Uznadze) towards positive behavior and positive actions. We believe that this is *the provisional, historically concrete, standard content of socialization figured out on the basis of consensus between all participants of the socialization-educational process*.

8. The parent’s participation in the education process is possible but limited. For example, the professional activity of a parent may serve as a certain illustration to the program topic of the lesson. As far as the child’s (teenager’s, young boy’s, young girl’s) socialization is concerned, the parents intervene in it from the very childhood until the child is within their reach. The method of intervention is called education. A similar method is also used in the professional activity of the pedagogue. Thus, we have the

process on one side of which we observe the specialist, and on the other – a lay person. One of them is effective, the other is not. What is more, in the present situation, the parent may also perform active counteraction thus lowering the effectiveness of the professional. And the contradiction consists in the fact that there is no instrumental support for the parents’ inclusion in the socialization process. The contradiction is also present at the methodological level when we unite “upbringing and academic training” within the category of “education”. And the Federal Law “On Education ...” (Article 44) guarantees the parents a prerogative in upbringing and education of their children. But this right is not supported instrumentally, and it cannot be realized without support. It is these contradictions that we tried to resolve with the help of our procedures (S. G. Molchanov).

9. By the way, it is also inability to realize the widely declared principle of openness.

10. Innovation may be defined as implementation of new methods of professional-pedagogical activity in practice.

11. Procedures 1 and 2 have been approbated, procedures 3, 4, 5 are still being approbated.

12. We interpret patriotism as the presence and manifestation of patriotic competences (“defend, create, respect”) recorded in the form of

quantity and quality of such actions of the person in relation to the members of the social group in which the given competences are primarily expressed.

13. As far as preschool children are concerned, in this case assessment is performed by the parents but “through the eyes of the children” [12].

14. We offer holding socialization lessons with the parents of our institution and, if possible, with the parents-activists of other education institutions of our region. This proposition has been made by the parents’ regional movement “Union of School and Family”.

15. The term “social intervention” was borrowed from the works of the French sociologist J. Ladseou. We agree with his position that education is a method of intervention in the process of person’s socialization.

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**DIAGNOSTICS AND PROGRAM OF PSYCHO-PEDAGOGICAL
TREATMENT FOR SPEECH AND NON-SPEECH STUTTERING
MANIFESTATIONS IN ADULTS VIA SMARTPHONE
APPLICATIONS**

Abstract. One of the priority goals of special education is to support people with disabilities, including stuttering adults, and assist them in successful adaptation and socialization in society. Therefore, training such persons to achieve speech fluency and communication skills under the natural conditions of daily communication is a matter of prime importance. The article contains the author's definition of the "actual speech communication conditions" as a current moment of interpersonal speech interaction significant for at least one of the interlocutors.

The author presents a brief overview of contemporary techniques of treatment of stuttering, as well as the basic stages and educational conditions required for realization of the authored program for rehabilitation of stuttering in adults via smartphone applications. He describes its purpose, objectives, content and lines of development aimed to train and automate verbal communicative skills in the process of functional training. The reliability of efficiency indicators of the suggested program is ensured by the author's method of psycho-pedagogical diagnostics, which makes it possible to obtain quantitatively comparable data on the frequency of stuttering moments (core behaviors), their duration and the nature of accompanying movements (secondary behaviors) before and after rehabilitation, which improves the reliability of statistical calculations. It has been proved that the realization of the program guarantees a significant improvement in speech fluency and communicative skills and their reinforcement in the course of functional training. The shaping of fluent speech in peculiar and typically significant situations is facilitated by the creation of pedagogical conditions including individual selection of the method of acoustic stimulation (rhythm, frequency-altered auditory feedback, masking noise, etc.), modeling verbal communicative situations providing gradual preparation for real communication, and variability of learning conditions. The actualization of

the created conditions and the effectiveness of the rehabilitation process are achieved through interrelation and continuity of its stages.

Keywords: diagnostics of stuttering; stuttering; logopedics; adults; rehabilitation of stuttering; speech disorders; persons with speech disorders; methods of treatment of stuttering; speech communication; psycho-pedagogical intervention.

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Stuttering is one of the most severe forms of speech pathology. If we take the recommendations of Avicenna (980—1037) for the treatment for this disorder related in *The Canon of Medicine* as the starting point, we will see that the methods and techniques of its treatment are almost a thousand years old. In spite of this fact, according to the modern scientific literature, the effectiveness of rehabilitation work, especially with adult patients, does not exceed 60% and only 20% taking into account the catamnestic 2-3 year long period [as cited in: 12].

To a great degree, this situation may be explained by the fact that non-speech disorders of situational-phobic character in adults suffering from stuttering (sharp limitation of the range of social interaction, reduction of communication with the peers of the opposite sex, telephone communication, etc.) are manifested in a most salient manner. Thus, the skills of communicative-verbal behavior of the stutterers in society

represent a pathological “architecture” of communicative activity which is characterized by hypersensitivity to socially significant speech situations directly provoking emergence of stuttering (speech convulsiveness proper). This “situation-bound phenomenon” of instability of stuttering manifestation depending on the change of communication conditions allows introducing the term “actual speech communication conditions” as a current moment of interpersonal speech interaction significant for at least one of the interlocutors [5].

The presence of frustrating component in the situation-bound communication of the stutterer which determines the variability of manifestation of stuttering in one and the same person makes it possible to speak about stuttering in adults as a combined disorder that needs creation of complex psycho-pedagogical programs aimed at restructuring the pathological stereotype of the communicative-verbal behavior under

actual speech communication conditions.

Today, we can single out the following methods of treatment for stuttering.

The method of complex medico-pedagogical rehabilitation of stuttering adults by N. M. Asatiani and N. A. Vlasova which is applied in hospital and is based on the approach by N. A. Vlasova [7].

The system of rehabilitation of adult stuttering people by V. M. Shklovskiy which closely combines logopedic, psychological, psycho-therapeutic and neurological intervention [13].

The system of complex logopedic and psycho-therapeutic intervention to treat stuttering in adults by Yu. B. Nekrasova, further considerably developed by *E. Yu. Rau*. The essence of the method consists in stimulation, amplification and reinforcement of sanogenetic states leading to speech readiness in training freedom of changing psychological states, which facilitates real communication [10; 11].

The method of L. Z. Arutyunyan. The given method is defined by the author as a method of stable normalization of speech in stuttering. The method is characterized by significant slowing down speech tempo, called “feat tempo”, and its consecutive synchronization with the fingers of the leading hand which determine the rhythmic-intonational contour of the phrase [1].

The new method of treatment for stuttering by Yu. A. Fesenko and M. I. Lokhov. This method is based on the supposition that all speech disorders are consequences of the primary lesions of brain structures and impairment of interaction between the structures responsible for speech production. Rehabilitation is held on the background of psychopharmacological medication accompanied by logopedic exercises [12].

The program for rehabilitation of stuttering in adults via smartphone applications with rhythmic effect [5] worked out by *S. V. Gusarov* and *E. Yu. Rau* and approbated on more than 70 patients by now. The program showed high efficiency corroborated by statistical data. The suggested program is based on the results of studying the use of acoustic stimuli to overcome speech convulsiveness in adult stutterers [2]. On the basis of preliminary investigation results, we have chosen the rhythmization of 80 metronome beats per minute as the leading technique in the suggested program. In addition, we also used acoustic feedback with the -0.5 octave frequency offset and a white noise muffler (50dB). The above mentioned methods of intervention were technically produced with the help of the patients’ personal smartphones. Free applications like *Metronome beats*, *Voicesmith*, *White Noise Generator*, etc. were used as

software means of acoustic signals playback.

The realization of the program was preceded by a complex psychopedagogical diagnostics one of the main components of which was the “*Assessment of Degree of Speech and Non-speech Stuttering Manifestations in Adults*” (S. V. Gusarov, E. Yu Rau) [4] during public speech of the experiment participants. The suggested method allows obtaining the following precise quantitative data:

- frequency of stuttering moments,
- average duration of the longest stuttering moments,
- manifestation of accompanying movements during speech —

and to compare them before rehabilitation and after it, which improves the reliability of statistical calculations in the assessment of effectiveness of the psycho-pedagogical intervention. The authored variant is based on the standardized method of assessment of the degree of stuttering manifestations SSI-4 (Stuttering Severity Instrument, G. D. Riley) [14; 15].

In accordance with the suggested method, five degrees of disorder manifestation are singled out: super mild, mild, moderate, severe and super severe. The diagnostic procedure presupposes obtaining video recordings of the patients’ spontaneous speech, their preliminary procession and analysis with the

help of free software, as well as methods of data assessment.

The indicators obtained – the number of syllables with stuttering moments, their duration and manifestation of accompanying movements – may be used for their comparison in different patients or may be compared with the indicators discovered in the same patient at different stages of rehabilitation. And the total scores of all three indicators make it possible to classify stuttering according to the degree of its manifestation.

The diagnostics results allow comparing the degree of the manifestation in various speech situations provoking stuttering and in natural communication. If necessary, the experimenter can undertake comparison in only one or two parameters.

Secondary observation at various stages of rehabilitation course allowed us to reveal the dynamics of speech and non-speech manifestations of stuttering in patients and to assess the effectiveness of the psycho-pedagogical intervention performed.

Signs of stuttering were absent in 85.9% of the patients immediately after the course of special training and in 77.2% at the end of the two-year catamnestic period. Immediately after training, no stuttering was observed in 69.4% of the control group members who had taken a traditional rehabilitation course.

The suggested “*Program for rehabilitation of stuttering in adults via smartphone applications ...*” allows changing pathological skills of communicative-verbal behavior on the whole (convulsive and accompanying motor manifestations), as well as automating the skill of fluent speech under natural conditions.

The aim of the Program consists in helping stuttering adults acquire communicative-verbal skills and facilitating their automation in the course of functional training.

The Program tasks include formation of fluent speech and communicative skills in stuttering adults, reinforcement of the communicative-verbal skills in classroom situations and their automation under the conditions of real speech communication.

The effectiveness of the Program is achieved via realization of four interconnected stages the content of which is made up of the complex of logopedic and psycho-rehabilitation techniques worked out taking into account:

- the modern tendencies of special equipment application in rehabilitation of stuttering people;
- individual for each, and typical for the majority of patients specificity of speech and non-speech stereotypes in the structure of stuttering of adults during communication;

- individual and typical nature of communicative-verbal situations provoking stuttering;
- individual-typological character of impact of acoustic stimuli on convulsive manifestations in the structure of stuttering.

The beginning of logopedic work presupposes intervention in the basic speech components – sound, syllable, word, as well as further development of the skills of fluent speech in monologue and dialogue utterances under classroom conditions of communication in a group of patients. The psycho-rehabilitation techniques are realized in functional training under artificially created (modeled) conditions in the process of role playing, holding discussions, etc. in different variants of role-play situation-bound communication. They are targeted at gradual transition of group functional training from the logopedic classroom to the real conditions of speech communication (situations of problem-based speech communication). Thus, the learners simultaneously acquire the skills of fluent speech and adequate emotional response to an interlocutor (or a group of people) in emotionally significant situations working out the strategies of interaction with strangers in the situation of a public speech, telephone conversation, etc. Then, the acquired knowledge is automated in all individually and typologically signifi-

cant speech situations. This makes it possible to generalize and single out the main *pedagogical conditions* of formation of fluent speech in stuttering adults via mobile technical means under the conditions of real speech communication:

- individual choice of acoustic stimuli with relation to the degree of manifestation of the disorder, individual psychological problems and the specificity of the communicative situations;
- modeling individual and typical speech situations ensuring step-by-step training for the real communicative conditions;
- variation of the training conditions the aim of which is to ensure the optimal amount of psychopedagogical measures and differentiated application of rehabilitation technologies in evaluating the individual properties of the participants.

The actualization of the pedagogical conditions and removal of disorganizing factors in the process of training are facilitated by the interrelationship and continuity between the stages of the program. Let us enumerate them:

- Information-analytical stage, devoted to collection of anamnestic data and complex psycho-pedagogical diagnostics.
- Organizational or planning stage. It results in the structural program of the rehabilitation process prepared for realization with regard to the patients' individual properties.

- Active rehabilitation stage. Its main aim is to achieve speech fluency in all participants without technical support and in all individually and typically significant situations.

- Correcting and regulating stage. It is a stage of secondary diagnostics, assessment of results, correction of the methods and techniques of special training.

The program of psycho-pedagogical intervention includes interrelated *areas* of rehabilitation work which reflect its basic *content*:

- diagnostic work – it ensures identification of the degree of manifestation of disorder and personal qualities of the patients, as well as the specificity of response to the acoustic stimuli;
- preparatory training – it ensures organization of the rehabilitation process and allows creating the conditions guaranteeing its maximum effectiveness;
- rehabilitation – it provides specialized support by a logopedist for development of the skills of fluent speech and formation of the communicative skills in the situations provoking stuttering;
- information-counseling work – it is aimed at explanatory activity connected with further independent work and the disorder relapse prevention.

Program content characteristics

Diagnostic work includes:

– complex collection of anamnestic data and analysis of the patients' diaries according to Yu. B. Nekrasova [10];

– identification of stuttering manifestation with the help of the modified method of G. D. Riley, SSI-4 (S. V. Gusarov, E. Yu Rau) [4];

– study of the effect of the acoustic stimuli on stuttering convulsive moments (SSI-4) and the patients' well-being according to A. B. Leonova [8; 9];

– study of the typical and individual speech situations presenting difficulties for the patients with the help of the authored questionnaire “*Study of Stuttering Manifestations under Various Conditions of Communication*” (S. V. Gusarov, E. Yu. Rau) [6] and the patients' diaries (Yu. B. Nekrasova).

Preparatory work includes:

– choice of main and auxiliary acoustic stimuli on the basis of preliminary diagnostics data;

– selection of optimal conditions for conducting functional speech trainings on the basis of diagnostic data about the complexity of typological and specific communicative situations.

Rehabilitation work includes:

– organization and conduct of group sessions and individual consultations in the amount necessary for overcoming stuttering;

– systemic intervention in speech and non-speech manifestations in the structure of stuttering using a

complex of psycho-pedagogical technologies aimed at acquisition of elements of non-verbal communication, sensory-motor acquisition of rhythm, teaching “speech behavior”, etc.

Information-counseling work includes:

– publishing a methods guide with well-grounded recommendations for the patients' individual work on the basis of rehabilitation activity experiment;

– counseling support for the relatives of the patients in questions of the strategies for further communication with the member of the family predisposed to stuttering.

The suggested program covers a 1.5 months course with daily sessions at the stage of active rehabilitation (for two weeks, 5-7 hours a day) and further training at the rehabilitation-regulatory stage during the next month (twice a week, 5-7 hours a day). The number of patients may vary within the range of 6-10 people, which makes it possible to ensure optimal pedagogical conditions of the rehabilitation-communicative micro-medium and interaction between the members of the group and the specialist to establish efficient feedback [5].

The advantages of the suggested program include high effectiveness, orientation towards work under the most complicated conditions of real communication, implementation of objective diagnostic methods into

the system of complex psychopedagogical intervention, and the potential to integrate the given program in the systems and methods of rehabilitation of stuttering in adults described in this paper or in other programs and rehabilitation systems.

Conclusions. It has been proved that the realization of the program guarantees a significant improvement of speech fluency and communicative skills and their reinforcement in the course of functional training.

The formation of fluent speech in peculiar and typically significant situations is facilitated by the creation of pedagogical conditions including individual selection of acoustic stimulus or a combination of such stimuli, modeling verbal communicative situations providing gradual preparation for real communication, and variability of learning conditions.

Salient stage-by-stage organization of the pedagogical process facilitates disintegration of pathological speech (convulsive) and non-speech (accompanying motor) stereotypes in stuttering adults emerging as a response to socially significant stimuli in their communication with people, as well as formation and automation of the skills of “sanogenetic” conditioned-reflex realization of speech fluency, bodily, facial expression, gesture and visual contact with people

under the conditions of real speech communication.

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**PREVENTION OF VISUAL-SPATIAL AND REGULATORY
DYSGRAPHIA IN THE PROCESS OF EARLY FORMATION
OF GRAPHOMOTOR WRITING SKILLS IN SECONDARY
SCHOOL PUPILS**

Abstract. The article is devoted to an experimental study of results of application of the preventive system of formation of graphomotor writing skills worked out by the author in children with predictors of regulatory and visual-spatial dysgraphia. The author outlines the issue of the growing number of typically developing preschool children whose problems with writing acquisition result from the objective laws of the child's functional brain genesis, as well as the increasing number of first-graders whose development does not fit the generally accepted age-related indicators. The article discusses questions of the modern conception of modernization of education, of recognition of the uniqueness and intrinsic value of human individuality, of finding ways of socialization of the person with disabilities, and the development of new pedagogical strategies of education process in order to efficiently address the challenges of teaching children with partial or mild deviations. The study proves that it is time to create at the reading and writing lessons the pedagogical conditions allowing teachers to prevent and correct errors arising from instability of the basic functional components and to lay the foundations of literate written speech of schoolchildren. The author presents the results of approbation of the suggested method in mass school practice. Using the methods of statistical data processing, the author carries out a comparative analysis of the works of the pupils who participated in the control experiment for the parameter "average value of dysgraphic violations frequency" in the "risk group" and "conventional norm". The study determines the effectiveness of the system.

Keywords: disabilities; dysgraphia; dysgraphia predictors; logopedics; teaching writing; graphomotor skills; writing disorders.

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INTRODUCTION

The modern society witnesses the tendency towards increase of the number of children with mild deviations in development. The latest education conceptions and the acknowledgement of uniqueness and inherent value of the person's individuality have led to the search for new ways of socialization of a person with disabilities, to design of new pedagogical strategies targeted at development of the humanistic ideas. The problem of the growing number of children needing complex assistance of various specialists sets the task to unite effort in order to effectively overcome the difficulties of development, education, upbringing and socialization in general of the children with disabilities under the conditions of the education process.

The issue of low educability of schoolchildren becomes especially urgent now from the social and pedagogical point of view. The number of the primary school pupils who cannot cope with the requirements of the standard school program has grown over two recent decades 2-2.5 times as much, reaching 30%. According to the Ministry of Education and Science of the Russian Federation, 78% of the pupils need special forms and methods of education. Physiologists and psychologists report, that 30% of first-graders demonstrate delay in gen-

eral motor development on entering school, and 38% of the children have significant difficulties in writing skills acquisition [2].

Special attention should be paid to the works of T. V. Akhutina, M. M. Bezrukikh, E. V. Krupskaya, A. R. Luriya, R. I. Machinskaya, O. A. Semenova, N. M. Pylaeva devoted to the state of arbitrary regulation of actions and visual-spatial functions as basic components in the process of development of the grapho-motor writing skill [1; 2; 10; 11; 14]. Formation of the written speech prerequisites is completed by the end of the ages of 6-7 years on average. But this does not mean that the child's psychological functions and processes are perfect: we observe underdevelopment of certain cognitive functions, brain mechanisms of arbitrary regulation of activity, concentration of attention, visual perception, visual-spatial tracing, analysis and differentiation, as well as poor formation or violation of integrative functions – visual-motor and auditory-motor coordination and mechanisms of nervous-muscular regulation; all this hampers execution of graphic movements [1]. According to the data of ontogenetic investigations, the age of writing skill acquisition is characterized by significant individual differences in the degree of maturity of all physiological systems, and the central nervous sys-

tem in particular [2]. As a result, unevenness of development of separate regions of the child's brain and individual peculiarities of his cognitive functions lead to lagging behind in formation of the functional components of the higher psychological functions, which are also present in the system of writing.

Enough attention is being paid in modern literature to the issue of writing disorders connected with underdevelopment of the regulatory component (problems of arbitrary regulation of speech and keeping up the cortex in tone and in active working condition) [9; 10; 11; 14].

It is the immaturity of the cortex and the brain regulatory structures that influence the acquisition of the writing skill in a specific way, which is reflected both on the semantic and graphical aspects of this process. The general character of regulatory disorders allowed T. V. Akhutina to single out a specific kind of writing disorder – *regulatory dysgraphia* [1]. Another, not in the least less significant functional component in acquisition of the graphomotor writing skill is the *visual-spatial* one. Being the leading component of any psychological activity, spatial concepts are the earliest to emerge but the longest to develop psychological functions in the ontogenesis. According to the data produced by a number of researchers, the zone under description becomes wholly mature by the ages of 11-14 years

[1; 8]. The maturity of the spatial component and its sublevels: coordinating, metric and topological concepts make up one of the most important constituents of the functional system of writing, because the letter is a geometrically organized object.

T. V. Akhutina defines this kind of disorder as visual-spatial dysgraphia [1].

In this connection, determination of the level of formation of the given functions at the stage of beginning schooling, as well as the organization of special pedagogical conditions in the process of primary teaching writing are important for successful acquisition of the skill both by the conventionally typical child and by the child with mild deviations in development.

RESEARCH

This article describes the verification results of the previous stages of research on the topic and the suggested methods of teaching in mainstream school practice. This task was accomplished with the help of a control experiment.

The aim of the control experiment was to check up the effectiveness of the suggested preventive system of teaching writing (PSTW) in other schools without preliminary testing and assessment of the real capability of graphomotor activity of each child.

Tasks:

- To analyze the works of the pupils at the end of the first and the second years of schooling who learn writing according to the traditional teaching methods [4] and according to the PSTW [5] with the purpose of discovering dysgraphic regulatory and visual-spatial errors.

- Using the methods of statistical procession, to compare the results of all classes between themselves on the average values of the frequency of dysgraphic errors (DE), and the ratio of the number of the pupils from the “risk group” with the total number of the pupils both in the experimental classes and in the classes which had taken part in the earlier formative experiment [6].

- To identify the change of the DE frequency in the “risk groups” after a three months break in the pedagogical process (summer vacation) in learning writing using the traditional teaching methods and the PSTW.

We made a decision to carry out the control experiment with the same teachers based on their teaching ex-

perience only. The control experiment was conducted according to the scheme shown in picture 1. Having conducted a course of teaching writing according to the traditional methods, the selected teachers let their pupils out of school. During the summer vacation, the selected teachers took a course of training in the methods of work according to the PSTW. The newly enrolled first-graders learned writing according to the PSTW.

It is necessary to comment here on the peculiarity of our participation in conducting teaching writing according to the PSTW at the stage of the formative experiment in the experimental class and at the stage of the control experiment.

In the first case, we performed the basic work in teaching children of the experimental class according to the PSTW. The teachers of these classes reinforced the learnt algorithms of activity with the children according to the author’s instructions.

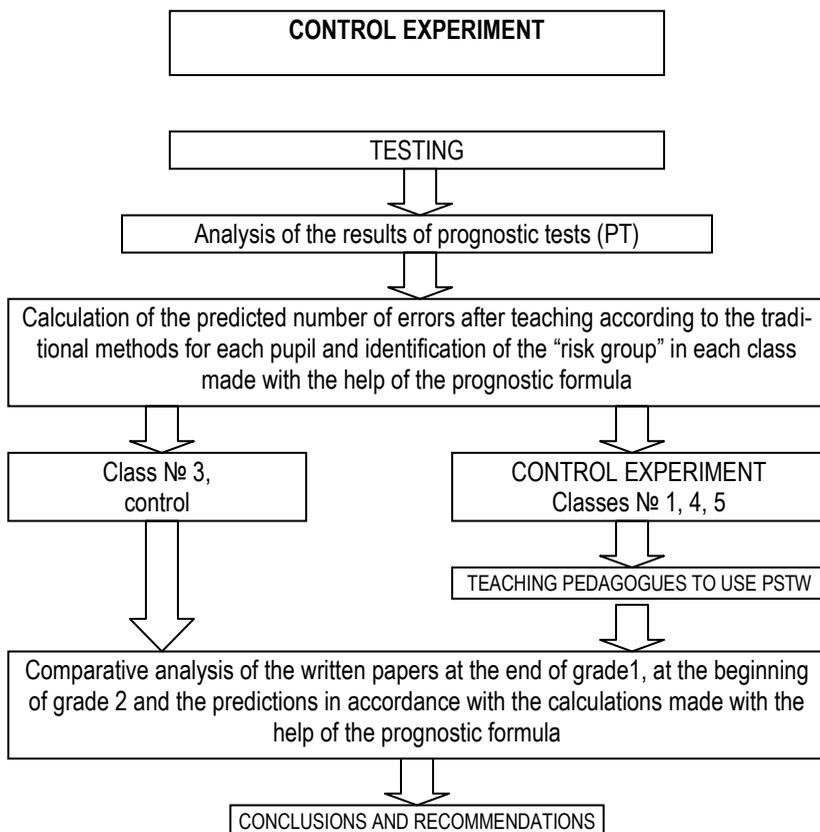


Figure 1. The scheme of the control experiment as a constituent part of the basic experiment.

In the second case, during the summer vacation the teachers took a course of training on the PSTW, i.e. they mastered the methods of teaching and received the didactic material (workbooks for the children). Then, during the control experiment the teachers taught the children independently on the basis of the authored system.

The teacher of class № 3, who had taken part in the formative experiment, taught the control class and the class during the pilot and the second stage experiment according to the standard program [4]. The experiment outcomes analysis showed that the results of teaching different classes by the same teacher had hardly changed,

i.e. the average values of the DE frequency in accordance with the MWW test ($W_{exp} < 1.96$) did not differ. We may assume that over the period (4 years) the characteristics of the contingent had not significantly changed.

COURSE OF EXPERIMENT

90 people took part in the experiment. The control experiment scheme is shown in figure 1.

Tables 1 and 2 contain the results of the pupils whose calculated data on the number of dysgraphic errors was above the critical value.

Analyzing table 1 we can see that in class № 1, according to the calculated data, seven pupils be-

longed to the “risk group” of the kinds of dysgraphia under observation. While teaching writing according to the preventive system, the number of the pupils of the given group was equal to 5; 7 pupils had been predicted to be in class № 4, and after learning according to the PSTW there were only 3 pupils in the “risk group”; 7 pupils had been predicted to be in class № 5, and in reality there was only 1 pupil. It should be also noted that practically all pupils had much fewer dysgraphic errors of regulatory and visual-spatial nature in their written papers in comparison to the prediction.

Table 1. Control experiment, end of grade 1, experimental and calculated frequency of dysgraphic errors

Pupil	Class № 1		Class № 4		Class № 5	
	Experiment	Calculation	Experiment	Calculation	Experiment	Calculation
24	34	36	34	38	32	40
25	32	47	30	45	30	48
26	42	44	33	43	33	38
27	38	38	35	45	34	42
28	37	56	43	45	34	45
29	40	74	36	43	35	43
30	45	36	40	73	37	64

Table 2. Control experiment, beginning of grade 2, number of dysgraphic errors

Pupil	Class № 1	Class №4	Class №5
24	32	31	35
25	33	33	33
26	34	40	40
27	34	34	34
28	35	35	35
29	36	34	34
30	36	36	36

After that, we examined the papers (home, classroom and test papers) of the pupils with relation to the presence of dysgraphic errors at the beginning of the second grade (see table 2). The summer vacation gives an opportunity for the natural processes to balance external intervention (teaching a skill) against the child's internal capabilities. As a result, the acquired skill gets deformed. The degree of this deformation depends both on the capabilities of the child, to be more exact, on their compliance with the tasks to be achieved, and on the pedagogical intervention: the more effective it is, the higher the stability of the acquired skill. In such circumstances, the differences in the study results of the written works of the

pupils in terms of dysgraphic errors may be attributed to the efficiency of the methods of teaching graphomotor skills.

According to the comparison of the results obtained at the beginning of the second grade and at the end of the first grade (table 2), the number of dysgraphic errors in the papers of the children of all three control classes decreased considerably. This fact may testify to the stabilization of the graphomotor writing skill in teaching in accordance with the authored preventive system of education. The data of the control experiment are shown in figures 2 and 3 in the column diagrams of the density of distribution of dysgraphic errors.

Dysgraphic errors, Class № 4.
 Predicted and real results at the end of grade 1.

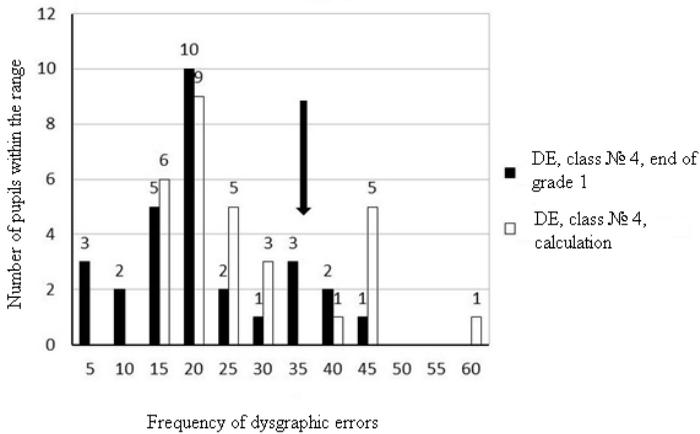


Figure 2. Distribution density of the number of dysgraphic errors of class № 4 (the pocket is equal to «5»), calculated (predicted) and real results at the end of grade 1

Dysgraphic errors, Class № 4.
 End of grade 1 and beginning of grade 2

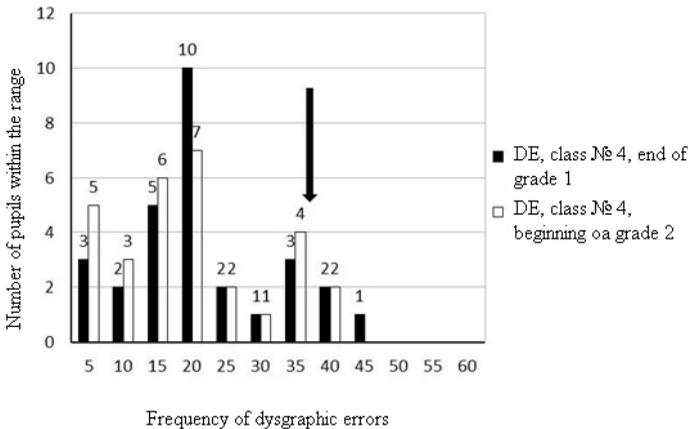


Figure 3. Distribution density of the number of dysgraphic errors of class № 4 (the pocket is equal to «5»), at the end of grade 1 and the beginning of grade 2.

CONCLUSIONS

1. We have registered a salient tendency towards decrease of children with a considerable number of dysgraphic errors of regulatory and visual-spatial nature (i.e. DE more than the critical value) in all classes.

2. Stabilization of writing skills is observed after the summer vacation, which is demonstrated in decrease of the number of children with DE more than the critical value in all classes learning according to the PSTW.

The control experiment data revealed that as a result of application of the authored Preventive System of Teaching Writing there happens a positive shift in the following parameters:

- the load on the teacher and the pupils is lowered;
- the quality of the education process gets improved;
- teaching writing according to the given scheme has a rehabilitation-preventive character, which is of great importance at the present moment of development of the education system in terms of inclusive education – teaching children with various levels of development, including those with disabilities, in general education mainstream schools.

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ABOUT AN INTEGRATED APPROACH TO DESIGNING THE CONTENT OF HEALTH PASSPORT

Abstract. The article is devoted to the issue of optimization of the process of medico-pedagogical interaction in organization of educational space, including the one for children with special educational needs. The success of social adaptation of children with developmental disorders depends, to a large extent, on the quality of diagnostics of their capabilities aimed at identifying the safe functions liable to rehabilitation process and their naturally developing psychophysical indicators including the objective data about the state of the child's health, his developmental peculiarities including information on the diseases he has had. The article discusses the possibility of solution of this problem within the systemic (complex) approach which presupposes taking into account medical, psychological and socio-pedagogical parameters of development of children. Special attention is paid to the need to create a document representing a health passport which would be easy to understand for parents and teachers; and which would contain information about the etiology and indicators of the developmental disorder and the psychophysical impairments of the child. The article substantiates the need to optimize the existing system of assessment of the psychophysical condition of the children with developmental disorders and provides concrete proposals about alteration of the structure of the health passport: indication of the social status and genetic anamnesis of the child; of the negative factors influencing the child in prenatal, perinatal and early postnatal ontogenesis, which plays a huge role in relevant organization of rehabilitation and abilitation measures; informative nature of the medical data and their frequency depending on the nature of developmental disorder; assessment of the child's speech functions and psychological development. It is also suggested that the health passport include the data about the individual physical development of the child.

Keywords: health passport; organization of educational space; children with disabilities; disabilities; children's health.

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The first decades of the 21st century have marked a crucial moment in the development of the education system of Russia. The cornerstone for the development and reformation of this system was laid by the National priority project “Education” in 2006. Above all, it was declared within the framework of this project that it was necessary to include health preserving technologies in this process. Under the current law “On Education in the Russian Federation”, the health of children and teenagers also refers to the priority areas of state policy in the sphere of education [14].

Undoubtedly, preservation and promotion of the health of children is an urgent issue, but these processes are impossible without tak-

ing into account the objective data about the state of the child’s health, his developmental peculiarities including information on the diseases he has had. In this context, the question about the creation of the health passport becomes especially important, as it represents a radically new approach to health preservation and promotion. The problem of design and approbation of this document has been dealt with over quite a long period but no uniform document for the whole territory of Russia has been created yet. The analysis of the situation has shown that the solution of this problem needs a systemic approach which presupposes taking into account medical, psychological and socio-pedagogical parameters of chil-

dren's development. At the same time, the document should be easy to understand for parents [11], teachers and, to a certain extent, for the child himself. It is also necessary to remember that the information should be confidential and ethically and socially correct.

It is beyond doubt, that health passport is necessary for typically developing children, as the correct use of its information optimizes the process of medico-pedagogical interaction while organizing educational space and medical support. Nevertheless, for the children who have deviations from the normal course of psycho-physical development, the urgency of the monitoring of dynamics via health passport increases manifold. The success of social adaptation of children with developmental disorders depends, to a large extent, on the quality of diagnostics of their capabilities aimed at identifying the safe functions liable to rehabilitation and abilitation process and their naturally developing psychophysical indicators. It is the relevant organization of the educational space that is capable of making them useful for the society and can create the conditions for their social adaptation [13]. One of the main tasks of the modern system of education, that has entered the path of inclusive learning, consists in the search for the ways of optimization of the psycho-medico-pedagogical interaction

in order to create the accessible and optimal educational space for the child with developmental disorders [10].

Health passport is a document that should contain information about the etiology and indicators of the developmental disorder and the psychophysical impairments of the child.

The health passport structure should include general information about the child (family name, first name and patronymic, date and place of birth, place of residence, family status: living in family, being under guardianship or without it, etc.). It is important to include the most complete genetic information about the child as it may allow us to make or correct the diagnosis and, consequently, to optimize the medical support for the child and identify his psychophysical status. Genetic diseases, for example, if they are connected with chromosome disorders, especially in the recessive type of inheritance, may manifest themselves not immediately, and with years can aggravate the course of the disease which is symptomatically incurable.

The health passport structure should also include information about the negative factors influencing the child in prenatal, perinatal and early postnatal ontogenesis even for a short time and entailing the emergence of new developmental disorders or aggravating the ex-

isting ones. This information is necessary to differentiate the rehabilitation and abilitation measures [9], because the situation needs data about the primary absence of the function or the loss of it.

Medical data should constitute the most informative constituent of the health passport. This section should include all the medical data about the child from the birth to the age of majority. Physiological characteristics should include the following: nosological group of the primary disorder with its code according to the ICD-10 and the accompanying disorders with complete description of the structure of defect [8]; anthropometric data with conclusions about the correspondence of the physical development to developmental norms, including sexual maturity; data about chronic diseases and the corresponding health group; previous diseases indicating the period and clinical course; laboratory tests. Specialists of various branches of medicine (pediatricians, neurologists, psychiatrists, oculists, gastroenterologists, rheumatologists, etc.) should take part in the assessment of the physical state of the child depending on the character of pathology. And the specialists should provide a characteristic of the general physical state of the child at the time of examination.

In a certain cases, additional information (about the presence of

allergy, epileptoid manifestations, musculoskeletal apparatus disorders, platypodia, etc.) may be needed for assessment of the physical state of the child.

If it is enough for the child included by the indicators of his psycho-physical development in the range of the norm to pass regular annual examinations, the child with developmental disorders needs shorter intervals between examinations (for example, once every three or six months). The health passport makes it possible to keep the information about medical prescriptions and the medical examination data in the common list of characteristic features of the child's development, which has a positive effect on the general assessment of the development of the child.

Assessment of the state of speech functions of the child needs obligatory inclusion of the logopedist in the team of specialists [7; 15].

The information specter of the health passport should be complemented with the data about psychological development, because the indicators of the emergence of new psychological properties which indicate the child's developmental potential [4] and the possibility to include in the rehabilitation process an activity-based component triggering off the formation of the new kinds of activity and transformation of the personal component are of

special significance. It is important to realize how much the leading activity is misplaced in the ontogenetic sense in the case of developmental disorder, and what higher psychological functions are maximally safe. Thus, the structure of the health passport should include the data about perception, attention, memory, praxis and cognitive functions. Not least important are the data about the development of emotional intellect [1; 2] and the child's communicability. Assessment of the age-related psychological characteristics and the presence of accentuations needs inclusion of additional information about the child's anxieties, phobias, obsessions and other negative states in the general spectrum of data about the personal development of the child [6].

The choice of experimental procedures is a special question of psychological diagnostics [3]. They should be unified and use an assessment scale uniform for the whole country allowing experimenters to differentiate the indicators according to the child's age and, consequently, should be chosen taking into account the indicators of both typical and impaired development.

In order to understand the socio-pedagogical specificity of the child, and mainly the child with developmental disorders, and to improve the effectiveness of rehabilitation-educational intervention, it is very

important to evaluate the social conditions of life of the person tested. If the child lives in a family, the following factors play an important role: the social status of the parents, the family's material well-being, the housing conditions, the presence of bad habits in the parents, the child-parent relations or the relations with significant adults; interpersonal relations with society (within the family, micro-group, etc.), relationships in the collective, and the assessment of the sociological status of the child beginning with the age of three years. Ruining relationships in the family and with significant adults and upbringing mistakes are known to influence the somatic health and general development of the child.

Socio-pedagogical status also presupposes the assessment of the pastoral-educational component of the child's development [4]. Defects of upbringing and inadequate organization of the academic process with considerable overload far beyond the child's capabilities are the main causes of children's neuroses and borderline mental states even in children with typical development. For the children with developmental disorders, the question of assessment of abilities and opportunities is of primary importance in designing the individual rehabilitation route. That is why, to assess the development of the socio-pedagogical constituent, the health passport

should contain the data of psychopedagogical diagnostics of the child at various stages of his development with reference to the level of formation of his social everyday skills and elementary knowledge and habits of orientation in space, awareness of the colors, size and shape of objects. The data about the socio-pedagogical status of the child and the regular monitoring of the changes within the parameters under observation may allow tailoring the education process of each child within the framework of the individual approach and smooth out the upbringing defects to the maximum degree.

It is also suggested that the health passport include the data about the individual physical development of the child, because it is next to impossible to carry out the individual approach to physical fitness in the diagnostics of the state of the child's health without assessing the level of physical development of children [5].

Thus, the health passport may serve as a basis of a complete enough assessment of the child's development along the following lines:

- medical (including anthropological data and data about the child's individual physical development);
- psychological;
- socio-pedagogical.

Such three-factor system of analysis may be valid as, relying

on the basic indicators of the child's development, it allows implementing optimal regulatory measures in the process of learning and upbringing. The following results of implementation of the health passport might be predicted:

- orientation towards healthy life style and health promotion of the risk-group children;
- normalization and prevention of development of pathological changes in the general state of the child;
- optimization of the education process.

The creation of such a document is absolutely impossible without computer-assisted informational foundation, and the monitoring of the child's development dynamics can make it possible to regulate its formation from the scientific point of view. Comparison of the indicators recorded in the health passport with the typical age-related characteristics [12] will allow choosing optimal means and methods of a complex approach to improvement of the child's health indicators.

It is evident that the necessity of design and approbation of health passports is beyond doubt, but one more question arising within the framework of the given problem is the question about access to the information – it must be closed for public use and can be accessed only for monitoring the child's health and development by the parents and

specialists of the corresponding profile.

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**SOCIAL SUPPORT FOR CHILDREN
WITH SEVERE MULTIPLE DEVELOPMENTAL DISORDERS
AND THEIR FAMILIES AT A DAY-CARE CENTER**

Abstract. The article presents the experience of looking after children with severe multiple developmental disorders (SMDD) at a day care-center. It considers different aspects of organization of daily activities and lessons in the structure of such center as a socialization mechanism for children with SMDD. The main aim of support of children with SMDD consists in their socialization which is looked upon in the article as a process and as a result of acquisition and active reproduction of social experience by the individual. The article describes the inclusion of children with SMDD in the educational space of the day-care center, and the creation of an optimal situation for the development of this category of children when they enter society. The article presents various forms of work with the children with SMDD, describes a special developing role of the process of caring provided at a day care-center, which ensures maximum involvement of the child in the process of learning, games, eating, performing daily living activities, etc.

It is noted that the work of the specialists of this center is aimed at the socio-pedagogical support for children, as well as at stimulating various abilities of each child and ensuring interaction between children within the created system of measures. It is also pointed out that a significant proportion of the parents caring for a child with SMDD need support; most of the parents are in a difficult financial situation, which creates a negative background for the upbringing of children and can lead to a depression. Such families need complex assistance from the state and public structures.

Keywords: children with disabilities; disabilities; severe multiple developmental disorders; socialization of children; socio-pedagogical support; day-care centers.

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One of the main tasks of the state policy not only in the field of education but also in the sphere of demographic and socio-economic development of the Russian Federation consists in ensuring the realization of the right to education by children with disabilities. The relevant conditions for the realization of the right to education by children with disabilities are guaranteed by international documents in the field of education and are enshrined in the Constitution of the Russian Federation. The creation of comprehensive conditions for receiving education by all children of the above mentioned category taking into account their psycho-physical specificity should be regarded as the main task in the field of realization of the right to education by children with disabilities.

In 2012, Russia ratified the Convention on the Rights of Persons with Disabilities. This document obliges our state to take real measures to remove the barriers

restricting the rights of persons with disabilities, guarantee their freedom, equality, respect and dignity. The right to education is one of the unconditional rights of any person, both child and adult. This right does not depend on their psychophysical state.

Nowadays, many specialists discuss the search for the ways to support the realization of this right by children with severe multiple developmental disorders (SMDD) [2; 12; 15]. It is these children that are the least protected both in the legal and social aspects. Until recently, the children with SMDD have been considered uneducatable, as a result of which practically no work on creation of conditions for their education has been carried out. Many social and educational services are beyond their reach even now, as they have been worked out without due consideration of their special educational needs.

There can be no denying that significant change is taking place in

the sphere of special education which is substantiated by the following factors:

- expansion of the contingent of the children with various developmental disorders, including SMDD;
- design of the Federal State Educational Standard for the education of children with intellectual disabilities.

Thus, classes for children with SMDD begin to be formed in education institutions in which adapted general education programs for pupils with mild and severe forms of intellectual disability are realized. Nevertheless, not all children of the given category with special educational needs have a chance to get education in school. A certain number of such children either stay at home or are placed at stationary institutions of a “closed” type.

Isolation of these children from the life of the local community and lack of communication with typically developing peers remain to be quite important factors as well. To crown it all, the family caring for a child with developmental disorders is itself not infrequently isolated from the society: the friendly ties get ruined and the parents lose work and have no opportunity to take rest from the daily routine. The parents of “special” children live in the situation of chronic stress and in a number of cases experience the feeling of guilt and inferiority of their family; they are left without

support of the surrounding people and often have the feeling of uncertainty about the future; very often they remain in the state of constant fatigue and depression. As a rule, they are doomed to professional and social deprivation. The situation is aggravated by widespread disintegration of such families, which often brings the family to the brink of poverty. And if assistance to special children is being developed, the family rehabilitation service in our country is still at the very beginning of its establishment [2; 6; 7; 10; 12].

The factors enumerated above make the problems connected with socialization of children with disorders of psychological development even worse. In this connection, the issue of creating a system of educational, psychological and rehabilitation support for the families caring for children with SMDD becomes especially urgent.

Certain measures have been taken by public organization and parents’ unions, some education institutions and independent practicing specialists in order to change this situation. The charitable public organization “*Perspektivy*” is one of the successful Russian initiatives which helps collect the experience of teaching and social inclusion of children with SMDD. Since 2000, the organization “*Perspektivy*” provides social support for the families with children and adults with severe disability in Saint Petersburg with

the aim of preventing social orphanage of children with severe congenital disability and helping young people avoid living at special boarding schools. The ratification of the Convention on the Rights of Persons with Disabilities created the legal foundations for this activity.

The organization supports the families caring for children with severe disability. Helping overcome the isolation, in which the child and his relatives who have to look after the child day and night find themselves, the organization "*Perspektivy*" tries to help the family live a full life and create the future for the child.

To support the families, the organization is realizing the program "Family Support" the structure of which includes various projects, such as the "Day-care Center for Children with Severe Multiple Developmental Disorders" (since 2011) and the project "School for Everyone" (since 2013).

Foreign experience shows that the process of social integration of special children, and specifically children with severe disorders of psychological development is impossible without social integration of the families with such children. To this end, the parents should first of all have certain knowledge in the sphere of law, psychology and pedagogy; and in order to obtain this knowledge, it is necessary to have means, specialists, place and time.

But the current system of support for special children in our country does not always adequately include the parents in the process of assistance, thus depriving them of the needed information provision.

According to T. M. Ratynskaya, interviews show that the parents of children with severe psychological disorders are, as a rule, incompetent in the issues of organization of the child's adequate living environment, and do not know how to facilitate the development of the skills of daily living activities and cannot orient in the multitude of the suggested rehabilitation technologies [12]. The parents also lack good knowledge of their rights to adequate medical assistance and social support. The fact of giving birth to a baby "which is not the same as in other families" is extremely stressful for the parents. This stress has a considerable damaging effect on the parents' psyche. Without having enough accessible information, the parents usually turn to the medical institutions only and try to "cure" their child. Sometimes the parents simply do not know how to express their love for such a child and find it difficult to define their role under the new complicated conditions, and cannot create the conditions for the child's normal development, learning and self-realization [11; 12; 13]. Such a child usually spends his preschool period of life at various medical institutions, and the

adults try to keep *him* away from interaction with the typical environment. But still the majority of the parents believe that their child should receive education, if only for the sake of getting a school leaving certificate. In relation to what educational route (or no route at all) has been chosen by the parents for their child, they may be conventionally subdivided into three groups: those who send their child to special school or boarding school; those who agree to home education; those who keep their child at home without providing him with any kind of education.

The children who had not attended rehabilitation centers before school and who had had little experience of close contacts with peers and adults turn out to be psychologically unprepared for schooling. Socialization appears to be extremely complex to the child with severe intellectual and psychological disorders. The problems of socialization usually consist in inability to organize one's participation in the life of society independently; what is more, the special child's behavior goes beyond the typical standard pattern, seems strange to the surrounding people and is naturally rejected by them. The school structure presents certain requirements to the child's behavior, habits and skills, which he cannot satisfy.

The following main problems are singled out in preschoolers with SMDD [7; 11; 13]:

- non-formation of communicative skills and interest in interaction with other children;
- inability to express their wishes, opinions and decisions;
- ignorance of the rules of behavior in the group, the structure of the group and the daily routine;
- non-formation of the skill to live without help and support of the parents during the day;
- inability to turn for help to other adults and to accept assistance from them.

There is common belief that the society should be ready to accept children with disabilities. The process of integration does not mean only this; it also presupposes the possibility of the child to enter the society by himself without violating its rules and to establish relationships with other members of the community. They say now that schools and kindergartens are ready to take such children and adapt their requirements and rules to match each concrete child. But this is not enough: the child should be also ready to integrate in the given society – not only to follow the rules of the children's group but also to become an active participant of events going on in it without violating the usual course of things for the surrounding children. This becomes possible only when the child

has experience of establishing relationships with the surrounding peers and adults [2; 10].

It is due to this that socialization and integration of such children needs design and organization of a carefully considered system of special measures and serious effort of the specialists. The work of the Day-care Center for Children with Severe Multiple Developmental Disorders consists in leading the child step-by-step along the chain of developing environments towards getting such experience. The work of the Center is based on the principles of humanism: each person under care is unique, and the main task is to reveal his potential and to create the conditions for his self-determination and self-realization.

The main aims of the Center's activity are:

1) to support the families caring for children with SMDD; to ensure normal conditions of life for such families and to give the parents spare time for work and rest;

2) to improve the position of such children via creating adequate conditions for communication and receiving different impressions and experience of self-realization.

The Center carries out preparation for schooling of children with intellectual disabilities, complicated motor, sensory and behavioral disorders, as well as children with severe intellectual disorders. Lessons with these children are organized in

two groups: *Adaptation* and *Graduate*.

The Adaptation group, as a rule, is made up of children who have not attended rehabilitation institutions. They remain in this group from 1 to 3 years and after that pass on into the Graduate group.

Such specialists as pedagogue-defectologist, instructor in adaptive physical training (APT), assistant instructor in APT, psychologist, tutors, assistant tutors and volunteers work in the Center. An individual support plan (ISP) is worked out for each child by the specialists. It contains the information about the child concerning level of self-service, communication, emotional-volitional sphere and social development, cognitive sphere, mobility and fine motor skills. Two or three main tasks are identified in the ISP in accordance with which the specialists work during a year. All persons under care attend the Center according to the individual timetable. It depends, as a rule, on the child's capabilities and the parents' wishes.

The organization of the Center's activity includes events of daily routine (breakfast, lunch, sanitary-hygiene procedures, etc.), group and individual training. Performance of routine procedures is significant not only for the child's acquisition of elementary daily living skills but in terms of rehabilitation process as well. Thus, for example, at breakfast

the children do not only learn to take food but also practice communicative skills (for example, wish each other good appetite). In the course of group sessions (“morning” and “evening” cycle) the children learn to express their emotions; their positive emotional mood is formed for the whole day, and they also sum up the results of the day’s activity. In addition, the Center’s timetable presupposes conduct of group and individual sessions according to the plan made up for each child for half-year in accordance with the aim and tasks determined in the ISP.

Preparation of the children with SMDD for schooling is one of the aims of the Center. But what is meant here is not preparation in the usual sense when the child acquires primary knowledge, habits and skills from various subject areas, such as math, reading, etc. It means work over the formation of the skills needed for the child’s socialization at school. The Center specialists proceed from the conception of the environmental approach which postulates that man develops in society and through society. In this connection, several basic lines of activity have been singled out in the work of the Center:

1. Teaching to accept and follow the rules of behavior in the Center, inclusion in the conduct of routine procedures and specially organizes lessons.

2. Formation of communicative skills, interest to group interaction in the process of joint activity, teaching to express wishes, opinions and decisions.

3. Formation of socially significant skills, habits and concepts, their application in accessible activity:

- orientation in social relations: adult – child, teacher – pupil, child – child;
- formation of concepts about oneself and surrounding people;
- formation of interest to the surrounding world and ability to orient oneself in it.

For example, if at the primary stage of group activity the children, as a rule, do not take notice of each other and ignore interaction, after regular participation in group activity they begin to pay attention to each other expressing various emotions into the bargain.

4. Formation of the skills to live without the parents’ help and support for the whole day and the skills to turn to adults for help and accept assistance from other people.

The first thing the children learn at the Center is to trust other people as they have no parents to turn to. These adults help the child get involved in social relations via accessible activity (to look at those who are moving or making noise; to take objects or toys; to perform actions together, etc.), teach to perform

routine procedures and follow the Center's rules and establish relationships with other children.

5. Formation of the skill to cope with stress and discomfort via socially acceptable means and to control one's emotional state.

Creation of the multi-sensory environment is one of the inseparable conditions for the formation of communicative and social daily living skills in the children. To this end, it is first of all necessary to single out the capabilities and strong points of each child and proceed from them. Thus we can give him the orientations, or "targets" which would help him orient in space. For example, working with children with loss of hearing it is necessary to fill the space with pictures, pictograms and objects-symbols to activate visual perception. In another case of the blind patient, whose strong point was tactile perception we hung out a bright rectangular next to his towel for orientation every time he washed his hands. For yet another child with good vision we placed the letter A (the first letter of his name) which he clearly saw and could find his towel independently.

We equipped a place for children with severe form of CP where the child can be laid in a therapeutic position to feel the boundaries of his body better.

Developing care plays an important role in the process of prepa-

ration of children with SMDD for school. Developing care is a kind of looking after children ensuring their maximum involvement in the process of learning, playing, taking food, etc. It is necessary that the child feel comfortable in the process of any activity for which purpose we should always take into account the child's state at each particular moment of time. We must keep in mind that the primary task is to create the foundation on the basis of which the child can change, will feel better and will be ready to demonstrate independent activity. But the boundaries of the child's capabilities should be expanded, that is why it is important to stimulate the child's potential and try to achieve his maximum independence even if it is not satisfactory enough. Thus, for example, while teaching to take rest or playing position, we should always take into account the child's physical properties; it is necessary to choose the position matching the child best of all and change it when he gets tired (responding to all signals of the patient). It is the position that determines the effectiveness of training – a comfortable position facilitates the maximum activity of the child.

Cooperation with parents is the indispensable condition of preparation for school and the main pillar of organization as it is only in close cooperation that we can achieve the desired results. The parents are full

participants of the life of the Center taking active part in the coordination of the ISP aims. The Center holds regular meetings of the parents and open doors activities in the course of which the parents can see their child during lessons and have a chance to observe the changes that have taken place in the child. Apart from that, the parents are invited to take part in individual sessions with specialists. Not least important in the work with the parents are common holidays which can be to a certain extent viewed upon as intermediary results of the work of the Center with each particular child. For example, each year the children celebrate the Autumn Holiday and the Holiday of the Autumn Night, birthdays, the New Year, etc.

In order to expand social contacts and the concepts about the surrounding world, the Center's patients together with the pedagogues, specialists and parents go on trips to cafes (for example, "the MacDonald's"), the zoo, oceanarium, children's city of professions "Kidburg", etc. The visit of the pupils of the Center and being present at the lessons of the surrounding world, reading and drawing at one of Saint Petersburg gymnasiums was one of the significant events.

In recent years, as a result of the work of the specialists from the organization "*Perspektivy*", 24 children have been enrolled in the classes in which the adapted

general education program for pupils with moderate and severe intellectual disability is realized. We believe that even singular positive examples of successful development of children with SMDD in the educational environment facilitate overcoming the stereotypes and expanding the opportunities of integration of children of the given category in society.

Thus, the whole activity of the Center creates the foundation for successful socialization and integration of the child in the educational environment, for the positive dynamics of the child's health, and for psycho-pedagogical competence of the parents. To solve these problems, the Saint Petersburg charitable public organization "*Perspektivy*" has concluded cooperation agreements with some Saint Petersburg schools, and has developed programs of network interaction.

Nevertheless, in spite of the positive experience of socialization of children with SMDD in the charitable public organization "*Perspektivy*", many education institutions have not yet created all the necessary conditions in the sphere of staff training and equipment provision for this kind of activity, which, to our mind, brings about certain difficulties for education of this category of children. These difficulties may be caused by the following factors:

1) absence of effective barrier-free environment for children with disabilities, which does not allow them to learn in the same group with typically developing peers;

2) inadequate equipment of education institutions with modern special teaching facilities (special desks, lift, didactic material for defectology, logopedics and psychology classrooms, adaptive physical training gym equipment, massage room equipment, etc.);

3) shortage of competent highly-qualified specialists in the sphere of work with children with SMDD;

4) absence of the necessary normative-legal basis for inclusion of such specialists as tutors in the staff, and the absence of salient definition and distribution of responsibilities among such pedagogical workers as tutor, assistant tutor, childcarer.

Thus, the problem of socialization of children with SMDD, including their preparation for schooling needs, on the one hand, ample realization of not only the programs of state support for this category of schoolchildren but also of cooperation programs with non-commercial institutions. It also needs an active position on the part of the parents. On the other hand, there emerges an urgent need to enhance mutual interaction between state-maintained education institutions and public associations ensuring continuity in the system of support for children

with SMDD and their parents (lawful representatives).

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ADDITIVE BEHAVIOR OF ORPHANS AND CHILDREN LEFT WITHOUT PARENTAL CARE AS A SPECIAL FORM OF DEVIATION

Abstract. The article characterizes additive behavior of orphans and children left without parental care as a special form of deviation, defines the essential aspects of the notions of “deviant behavior” and “additive behavior” and outlines the criteria of their manifestations. The problem of additive behavior is a social issue resulting in such negative aftereffects as conflict with the surrounding people and loss of working capacity. The author figures out that non-realization in real life brings about addictions of both psychological and physiological nature. And the methods and forms of addictive behavior may be varied and often have a pathological character. The article presents various approaches to classification of additive behavior, and singles out socio-psychological peculiarities of orphans and children left without parental care responsible for this type of behavior. The author outlines the methods of prevention of additive behavior connected, first of all, with overcoming individual problems of orphans and children left without parental care and targeted at decreasing the level of aggressiveness and anxiety, at formation of the habits of non-conflict behavior, self-regulation skills and development of adequate self-esteem. The part of the article about the experience of implementation of programs aimed at prevention of deviant behavior of pupils and training and support for foster families in the activity of budgetary institutions catering for orphans and children left without parental care is of special interest. In future, theoretical and methodological materials of the article may be used in prospective research of additive behavior of orphans and children left without parental care brought up in foster families.

Keywords: addictive behavior; deviant behavior; foster family; orphans; children left without parental care; kinds of addiction.

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The dynamic nature of socio-economic life brings about psycho-emotional tension. Children and teenagers losing the feeling of security and confidence in the future and experiencing stress and discomfort, try to get away from the problems of the present by resorting to the strategies of additive behavior (*hereinafter: AB*) [15; 20; 27; 28]. At present, there is an urgent need to carry out a deep analysis of the social and psycho-pedagogical aspects of the issues of AB of orphans and children left without parental care, and also those living in foster families. More than 100,000 children left without parental care are registered every year [21, p. 3]. The presence of children and teenagers with AB in foster families needs due reflection on the causes of AB and determination of the ways of its efficient prevention.

The aim of the given article is to determine the essential characteristics of the notions “deviant behavior” and “additive behavior”; to outline the criteria of their manifestations; to indicate the socio-psychological characteristics of orphans and children left without parental care causing the development of this kind of behavior; to

state the urgency of the problem of addictive behavior of orphans and children left without parental care in foster families. In future, the theoretical-methodological material of the article in its invariant characteristics will be used to investigate the problems of additive behavior of orphans and children left without parental care living in foster families.

Orphans and children left without parental care represent a most vulnerable category subject to socially negative interventions. Their socio-psychological specificity has been dealt with in the works by N. F. Divitsina (2005), N. N. Tolstykh, A. M. Prikhozhan (2005), I. F. Dement'eva (2003), N. K. Radina (2000), A. G. Ruzskaya, I. V. Dubrovina (1990) [11; 22; 10; 24; 23]. Many inmates of boarding schools demonstrate traces of negative aftereffects of staying and being brought up at boarding schools. This fact is highlighted by N. N. Tolstykh, A. M. Prikhozhan (2005), A. G. Tsebulovskaya (2003), L. I. Bozhovich (1986) [22; 3; 31]. The researchers define the socio-psychological characteristics of orphans determining the development of deviant behavior (I. F. Dement'eva (2003);

N. N. Tolstykh, A. M. Prikhozhan (2005); G. M. Sem'ya (2004), etc.) [10; 22; 25]. The necessity of prevention of deviant behavior is brought about by the presence of social and socio-pedagogical problems in the inmates of boarding schools, as well as by the absence of the relevant social experience [2; 26; 29]. The researchers have come to the opinion that that there are significant problems in regarding deviant behavior due to the difficulties of analysis of social and biological factors in the deviation genesis [7; 12].

The authors use the notion “deviant behavior” defined in dictionaries [19; 28] as, for example, in the Large Psychological Dictionary [4, p. 16] in the following way: “Deviant behavior (from Latin *deviare* – “turn aside”) is used to denote actions which do not conform to the officially established or traditional for the given society (social group) moral and legal norms and lead the violator (deviant) to isolation, treatment, correction or punishment.

As a rule, the following criteria are used to assess the manifestations of deviant behavior: non-conformity to what is considered normal in society, negative evaluation of actions, behavior or way of life from the point of view of other members of community, bringing real harm to the person himself and/or the surrounding people, presence of various manifestations of disadap-

tation, multiplicity, duration and stable reiteration of socially negative actions [12; 18; 21; 32]. The scholars have defined the psychological peculiarities of orphans and children left without parental care determining the possibility of development of deviant behavior: high anxiety, inadequate self-evaluation, destructive line of behavior in interpersonal communication, low level of self-regulation, self-management and self-control and high level of aggressiveness [21]. The creation of an optimal theoretically founded conception of prevention of deviant behavior in orphans and children left without parental care in boarding schools and foster families remains to be urgent.

We define the notion of “addictive behavior” in opposition to the notion of “deviant behavior”: “Addictive behavior is one of the forms of deviant (deviating) behavior which is caused by seeking to get away from the objective reality by way of unnatural change of psychological state through taking certain drugs or stable fixation of attention on some kinds of activity” [34].

“Addictive behavior” is also defined as a special kind of destructive behavior: “Addictive behavior (from *addiction* – persistent compulsive use of a substance known by the user to be harmful; Latin *addictus* – a debt slave) is a special kind of destructive behavior which is expressed in seeking to get away

from the objective reality by way of unnatural change of one's psychological state. Addiction is its synonym. The following kinds of addictions are singled out: 1) abuse of one or several drugs changing the mental state, for example: medications, narcotics, alcohol, various poisons; 2) gambling misuse and computer gaming abuse; 3) sexual addictive behavior; 4) starving and gluttony; 5) "workaholism"; 6) prolonged listening to music based on rhythms. The development of addiction is accompanied by reduction of interpersonal emotional interaction. In the narrow sense, addictive behavior is limited to one kind of addiction only" [4].

The problem of additive behavior is studied by specialists from various fields. Thus, in medicine, AB is widely understood as misuse of drugs that change the psychological state [17]. In recent years, the notion of "additive behavior" has been expanded due to emergence of new forms of addiction not associated with drug misuse. In psychology, AB is defined as a variant of destructive behavior connected with seeking to get away from reality by way of unnatural change of one's psychological state through taking certain drugs or constant fixation of attention on some objects or kinds of activity which is accompanied by development of intensive emotions [15]. The given interpretation of the notion of "additive behavior" is

actively used in special literature and dissertations; the terms "addiktivnoe povedenie", "addiksiya", "zavisimoe povedenie", "zavisimost" are used as synonyms [10; 14; 21; 28]. Addictive behavior is a social problem as well, because in its marked form, it leads to the loss of working capacity, escape from reality, and growing isolation from other people. Addiction becomes a way of getting away from real life and brings about severe dependencies of both psychological and physiological nature.

The typology of AB is versatile. As a rule, the kind of addictive agent becomes the basic criterion of typology. Chemical dependency is also frequent; it consists in misuse of drugs changing the mental activity of the person (psychoactive drugs – PAD) [8; 27]. Special attention is paid to non-chemical dependencies [9]. The first classification of non-chemical dependencies was suggested by Ts. P. Korolenko [14]. He included in it gambling, relationships addiction, sexual and love addictions, avoidance, workaholism, money spending, and urgency addictions. Other non-chemical dependencies have also been described: computer addiction, internet-addiction, sms-addiction [1; 5; 28].

Scientific literature on the AB problems describes characteristic features and criteria of addiction. As a rule, the authors dwell on the follow-

ing universal components of AB: atypivality, tolerance increase, euphoria, overevaluation, conflict with the surrounding people and with himself, rejection symptoms and relapse [28, p. 17].

Special literature determines the motivation of the person prone to AB – this is irresistible desire to change of one’s mental state which is considered to be “dull”. The psychophysiological essence of additive behavior of orphans and children left without parental care consists in inability to control one’s psycho-emotional tone. Such children restore their psychological comfort via choosing unnatural change of their psychological state.

The scholars stress the destructive nature of the forms of AB [8; 14]. The addicted persons avoid communication, stop enriching their life experience, and limit their potential, which leads to personal degradation.

At the present stage, while considering the phenomenon of additive behavior, priority is given to the complex bio-psycho-social model of additive behavior [28, p. 19]. We believe that AB should be regarded in the culturological, social, legal, psychological and medico-biological aspects.

There are many conceptions of addictions. The majority of them have been worked out in relation to chemical dependency [17; 27]. Our analysis of the literature has shown

that the traditional causes of AB in psychology include the following: personal development disorders [17], impact of socio-cultural peculiarities [20], way of life of the family and family relations [33], marked manifestation of the adolescent crisis [35], and personality deformation as a result of violated social interaction with peers and adults [13].

It is believed that the problem of addiction is mostly connected with teenagers. According to some researchers, the age factor does not determine addiction; others believe that adolescence is one of the risk factors of AB [16; 17; 27]. The following typical features of adolescence provoking addiction are identified: high egocentrism, propensity for protest and struggle against authority, attraction to the unknown, seeking independence and break from family, immaturity of moral convictions, tendency to exaggerate the complexity of problems, painful response to changes in puberty, low stress resistance alongside numerous causes of stress emergence [28, p. 24—25].

Orphans and children left without parental care, having many features in common, often demonstrate different models of behavior, which, undoubtedly, is connected with the individual traits of a concrete personality [17; 20; 30; 33]. In this case, the role of the foster family in translation of moral values, assis-

tance in social adaptation, facilitation of the personal growth of the children adopted in the family radically increases. Nevertheless it is necessary to note that while translating the personal views and beliefs, the family does not always manage to help the orphans and children left without parental care to obtain the experience needed to solve real problems.

Realization of special programs makes it possible to resolve the existing contradictions in the solution of the problems of the foster family and the adopted children, to form the conditions optimal for the development of the family and for the child's upbringing, and to prevent problem situations, specifically those connected with addictive behavior.

The Budgetary Institution of Khanty-Mansi Autonomous Okrug — Yugra “Center for Support of Children Left without Parental Care *Aistenok*” realizes the program “Ethnic Tourism – Positive World Perception”. Ethnic tourism facilitates acquaintance of the pupils with historical, cultural and other sights of Yugra. The program allows realization of the ethnic tourism potential within the frames of humanitarian knowledge, specifically in the aspect of the culturological approach shaping the culture of children and teenagers.

The problems of additive behavior of orphans and children left without

parental care actualize the need to create the conditions for realization of cognitive interests. Ethnic tourism functions as a means of realization of these interests and formation of the pupils' culture. The main goals of the Program consist in creation in orphans and children left without parental care of active behavioral motivation towards their self-positioning in society; improvement of effectiveness of AB prevention; socialization of the children through ethnic tourism; fostering love for the land of Yugra, its people and their traditions; provision of favorable and comfortable conditions for the organization of spare time, recreation and rest; formation of the skills of effective communication; and formation of positive world perception and tolerance.

The first stage of the Program realization (2017) will cover events connected with methodological support of the technology: concluding cooperation agreements with institutions engaged in tourism and recreation services on the territory of Nizhnevartovsk District (Nizhnevartovsk Local History Museum named after T. D. Shuvaev, Var'egan Ethnographic Countryside Park-Museum, Nizhnevartovsk District; Anna Kazankina project “Bear Pine Forest on the Agan River”, etc.); selection (design) of tourist routes with relation to the age and interests of the pupils, collection of information about the sights of

Nizhnevartovsk District, and selection and systematization of traditional folklore festivals, crafts and games of the indigenous peoples of the North.

At the second (main) stage (2017-2018), we plan to realize the Program along the following lines: cognitive, sport-cultural and decorative-applied development. The following events will be held within these frameworks: sightseeing excursions organized by the institution staff and professional guides; educational events during the city and district festivities (interactive lessons, local history contests and competitions, etc.); sports events facilitating popularization of the national sports of the indigenous peoples of the North, etc.; master-classes in making national souvenirs, dishes, elements of clothes; annual national holidays “The Day of the Deer Breeder”, “Gray Crow Arrival”, “Oblasa Festival”, “Tea at the Fireplace” dedicated to the International Museum Day.

At the third stage (2019) we are going to figure out the effectiveness of these events, carry out monitoring of the Program effectiveness on the whole and make analytical evaluation of the qualitative and quantitative changes.

Alongside the task of socialization of orphans and children left without parental care, the implementation of the program “Ethnic Tourism – Positive World Perception” allows us to solve the problem

of gradual involvement of the pupils into excursions, tourism and local history activity; facilitates acquaintance with historical, cultural, natural and other sights of the native land, forms the feelings of public spirit, patriotism and pride for one’s own history and culture and fosters love for the land of Yugra.

The realization of the program “Ethnic Tourism – Positive World Perception” facilitates socialization and activation of the personal resources of orphans and children left without parental care and opens up new horizons for interaction with such children.

The specialists of our institution have also worked out and are realizing the Program of facilitating family placement of orphans and children left without parental care for the years 2014-2017. This Program represents a practical instrument of preparation of the persons wishing to adopt a child left without parental care and further support for foster families. The Program is expected to yield the following results: increase of the number of children placed in foster families; increase of the number of potential and acting foster parents who have taken the course of special training; increase of the number of potential and acting foster parents with a high level of special (tutoring) parent competences; increase of the number of foster families included in the service within the frameworks of the

agreement; and increase of the number of foster parent candidates who have passed complex evaluation.

Prevention of additive behavior of orphans and children left without parental care facilitates overcoming their individual problems and makes it possible to work out an effective strategy of addressing problematic living situations.

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NON-EPILEPTIC PAROXYSMAL EVENTS IN CHILDREN: STRUCTURE AND PHENOMENOLOGY. I. JITTERINESS

Abstract. Parents, pedagogues and doctors often face ambivalent conditions of children difficult to be diagnosed as normal, adaptive or pathological. Non-Epileptic Paroxysmal Events (NEPE) occupy a special place among them. The given research focuses on the description of the main non-epileptic paroxysmal events in children which are often observed in everyday professional activity of pedagogues, psychologists and pediatricians and may be difficult to interpret. The authors have undertaken an analysis of diagnosability of NEPE at the specialized neurological department of the city children's hospital in 2016. Four out of 78 children with the admission diagnosis of NEPE arrived from children's preschool institutions where their paroxysmal disorders caused special anxiety and worry. The NEPE was diagnosed in 53,8 % of cases; in 46,2 % of cases the disorders failed to be differentiated. The article considers jitteriness as a most widespread kind of NEPE in babies in more detail. It shows that this phenomenon is present in about a half of the typically developing babies; nevertheless, jitteriness may be a consequence of impaired metabolism, somatic diseases, withdrawal syndrome and the baby's nervous system lesions, which needs in-depth diagnostics and delicate treatment. In the overwhelming majority of cases, the prognosis for this condition is favorable.

Keywords: children; pediatrics; non-epileptic paroxysmal events; non-epileptic paroxysmal disorders.

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From the very first days of their practical activity, the pedagogue, psychologist and pediatrician may come across various peculiarities of the child's behavior which puzzle both the parents and the specialists. These phenomena may include, specifically, trembling, stereotypical habitual movements in the state of wakefulness, and puzzling phenomena taking place during sleep. Standard education cannot answer the question about the origin of such states. Thus, "classical" medicine considering all phenomena through the dichotomy "normal – pathological" or "normal – abnormal", and in the case of "pathology" or "abnormality" – via the scheme "etiology – pathogenesis – pathomorphology – clinic – diagnostics – treatment – prognosis" turns out to be helpless in this case.

It would be worthwhile remembering the phrase of the outstanding Russian pediatrician I. M. Vorontsov that pediatrics as a medical science is radically different from

the medicine of the adults because it represents a combination of medicine of development and medicine of disease.

A considerable number of ambivalent conditions of children are difficult to be diagnosed as normal, adaptive or pathological, and the solution of this problem has a directive rather than arguable nature. The decision about the abnormality of such state is often taken because of the inability to explain its origin and character.

The founder of developmental neurology H. F. R. Prechtl suggested using the dichotomy *optimal/suboptimal* instead of the typical for medicine in general and for neurology in particular approach to a clinical phenomenon through the dichotomy of *normal/pathological* or *normal/abnormal* [18].

In order to rank the phenomenon as optimal or suboptimal, special scales (sheets) of optimality are worked out, and the suboptimal indicators are evaluated from the

point of view cumulative risk, while the total evaluation should have numeric expression. Optimality is a narrower notion than normality. This approach will allow us to regard some ambivalent states in babies from a different angle.

The phenomena under investigation in this article have been recently called in the world literature non-epileptic paroxysmal events (NEPE).

In Europe, the incidence of epilepsy in children is 4-5%; in 39% of children with suspected epilepsy the primary diagnosis is not confirmed, and in 47% of these cases the disorder is diagnosed as a NEPE [21; 22].

The NEPEs in children can be classified according to the behavioral state during which they manifest themselves (sleep, wakefulness)

[3], or in accordance with the age at which they mostly occur (babyhood, childhood or adolescence) [21] (Tables 1, 2).

It is necessary to add that a number of paroxysmal phenomena are observed in the fetus in the course of its typical prenatal development. They include *startles* and *hiccups* from the 8th week of gestation, *urges* to urinate – from the 9th week of gestation, *stretching* – from the 12th week, *tongue protrusion* – from the 13th week, *blink reflex* – from the 22nd week of gestation [2; 9; 10].

The aim of the given research is to describe the main non-epileptic paroxysmal events in children which are encountered in everyday professional activity of pedagogues, psychologists and pediatricians and, as a rule, are difficult to interpret.

Table 1. Systematization of NEPE according to the behavioral state (A. B. Pal'chik et al. [3])

Wakefulness	Sleep
Jitteriness	Sleep-dependent rhythmic movement disorders — RMD
Startle-syndrome and hyperekplexia	Benign neonatal sleep myoclonus
Benign myoclonus of early infancy (Fejerman syndrome)	Masturbation
Gastro-esophageal reflux disease (Sandifer syndrome)	
Paroxysms of “jerking”, “trembling” and “shuddering” attacks	
Children’s transient syndromes	
Breath-holding spells	

Table 2. Most widespread age-related NEPE (B.Tatl et al. [21])

Babyhood	Childhood	Adolescence
Jitteriness	Breath-holding spells	Syncope
Hyperekplexia	Shuddering attacks	Sleep disorders
Benign neonatal sleep myoclonus	Stereotypies	Psychogenic crises
	Benign paroxysmal torticollis	Tics
	Benign paroxysmal tonic upward gaze syndrome	Migraine
	Benign paroxysmal positional vertigo	
	Sleep disorders	
	Masturbation	
	Spasmus nutans	
	Sandifer syndrome	

Materials and methods

Over the period from January 1 till December 31 2016, 78 children aged up to 4 years with paroxysmal consciousness disorders were admitted to the neurological department of the St Olga Children's Hospital of Saint Petersburg. Four of them were taken to hospital from preschool institutions accompanied by medical personnel or parents because of paroxysms at the crèche or children's home.

General characteristics of the children under observation are shown in table 3.

Each child's state was evaluated with the help of universal schemes of somatic, neurological and ultrasonographic observation. Electroencephalography (EEG) was carried out with "Mitsar-EEG-201" by standard methods during wakefulness using functional tests in accordance with the age of the children under observation.

Video EEG was taken in the functional diagnostics laboratory with "Mitsar-EEG-201", as well as on the base of the Diagnostic and Treatment Center of the International Institute of Biological Systems.

Statistical analysis was made with the help of the program *Statistica for Windows 10.0* using the Spearman's rank correlation.

Results

As a result of our investigation we found out that 22 children (28.9 %) out of those with paroxysmal disorders identified as NEPE had no neurological deviations; other babies demonstrated various deviations of causative nature in their neurological status; 12 children (15.9 %) had multiple deviations. The ultrasonographic observation showed normal structural brain picture in the majority of children (55.3 %); mild brain ventricular expansion (22.4 %) was predominant among the deviations observed.

Table 3. Characteristics of children under observation

Indicator		M (X _{min.} — X _{max.})
Sex	boys	39
	girls	39
Gestational age (months)		35.5 (29—42)
Postnatal age (months)		25.5 (1—50)
Optimality of the course of pregnancy, %		83.5 (70—97)
Optimality of the course of birth, %		80.5 (61—100)
Evaluation according to the Apgar scale	1'	5 (1—9)
	5'	6.5 (4—9)

Table 4. Character of consciousness and movement disorders in children under observation

Character of paroxysmal disorders	n	%
NEPE differentiated into:	42	53.8
– breath-holding spells	9	11.5
– benign paroxysmal eye phenomena	6	7.7
– Fejerman syndrome	11	14.1
– benign paroxysmal torticollis (retrocollis)	4	5.1
– benign nocturnal alternating hemiplegia	2	2.6
– mild hyperekplexia	2	2.6
– masturbation	2	2.6
– benign sleep myoclonus	1	1.3
– spasmus nutans	1	1.3
– sleep apnea	1	1.3
– paroxysmal dystonia attacks	1	1.3
– jitteriness	1	1.3
– startle response	1	1.3
undifferentiated NEPE	36	46.2

EEG corresponded to the age norm in 73 children (96 %); three children (4 %) demonstrated delay in formation of bioelectrical activity, which was one more argument in favor of referring these paroxysms to the NEPE.

The structure of the NEPE discovered by our study is presented in table 4.

In spite of the fact that the phenomenon under study was diag-

nosed in one child only, it refers to the most commonly found NEPEs.

Jitteriness means “nervousness, tremor, and ease of startle”.

Jitteriness is a stable tremor of constant amplitude around a fixed axel associated with high muscle tone and deep reflexes, stable newborn reflexes, low threshold of the startle response and the Moro reflex which becomes less marked or dis-

appears in a calm condition and/or during passive flexion of the limbs.

In a more extensive research of the same problem which included 936 healthy full term babies, jitteriness was diagnosed in 44% of newborns [16].

Hypernoradrenalinemia serves as the basic mechanism of development of jitteriness in healthy newborns or low risk group babies. Among adaptive borderline states of the nervous system of newborns, N. P. Shabalov [5] mentions the “sympatico-adrenal crisis of a newborn” or the “newly born child’s syndrome” which, in fact, is analogous to jitteriness and discloses the mechanisms of its emergence.

It is necessary to note that jitteriness is a significant syndrome of those metabolism disorders of the baby that influence on the balance of the processes of excitation and inhibition of neuron and neural ensembles.

This particularly applies to hypoglycemia. As far as hypoglycemia is quite frequent in newborns (38% of all newly born babies), this state may be one of the main causes of jitteriness. According to the data of the joint research of such authors as M. Cornblath and R. Schwartz [7], 81 % of newborns with delay of prenatal development and hypoglycemia demonstrate jitteriness.

Alongside frequent metabolism disorders, the formation of jitteriness may be caused by magnesium

and sodium deficiency and dehydration [14; 26].

Neonatal sepsis is singled out among other somatic causes of jitteriness [12; 23].

The mechanisms of development of jitteriness caused by sepsis may be varied: from numerous secondary metabolism disorders mentioned above to hypernoradrenalinemia emerging as a result of tension of the hypothalamic-pituitary-adrenal axis.

Jitteriness was the leading neurological deviation among 156 newborns in the South African Republic during the outbreak of rotavirus infection [8].

Moreover, it is necessary to mention polycythemia as a possible cause of jitteriness among other somatic diseases of the newborn. With polycythemia, jitteriness is diagnosed in 7.3—25.9 % of cases [20; 25].

The withdrawal syndrome serves as one more cause of jitteriness. What is more, jitteriness might be the main characteristic feature of the abstinence syndrome. The narcotic drugs taken by women during pregnancy and causing the withdrawal syndrome are reported to include morphine, buprenorphine, heroine and its surrogates, methadone, tramadol and cocaine [4; 11; 13; 15]. The first five drugs are opioids and have a common mechanism of the withdrawal syndrome development.

The medications that bring about the withdrawal syndrome marked by jitteriness include antidepressants, neuroleptics, tranquilizers (benzodiazepines) and anti-convulsants.

Lesions of the nervous system of newborn babies are significant but not leading factors in the causal structure of jitteriness. Jitteriness may appear as the manifestation of the first stage of the hypoxic-ischemic encephalopathy of the newborn (H. B. Sarnat, M. S. Sarnat [19]). According to such scholars as U. Kramer, Y. Nevo, S. Harel [12] and J.J. Volpe [24], in addition to hypoxic-ischemic lesion, jitteriness may be caused by intracranial hemorrhage.

Jitteriness is manifested in the child's constraint and tremor, which, if marked, impresses the parents and the pedagogical and medical staff. The research by A. B. Pal'chik and A. E. Ponyatishin [3] presents a detailed objectification of the main manifestations of jitteriness with the help of standard scales. Calming the baby down while taking it in the arms, and passively bending its limbs serve as important differential-diagnostic techniques aimed to discern between jitteriness and spasm. Taking into account that the phenomenon under description has a favorable prognosis, the simple diagnostic techniques mentioned above are utterly important for understanding this state and for organizing the support for such babies.

Due to the fact that in many foreign countries jitteriness is not subject to medical treatment, the hopes for the early resolution of this state are connected with natural processes not needing medicamentous intervention. According to R. Pe Benito et al. [17], jitteriness vanishes during the first year of life and sometimes may be observed during the second year. In cases when other neurological signs are present, the outcomes may be associated with some neurological disorders and developmental deviations (first of all, with muscle hypertonia) [6; 17]. It is only the children in whom jitteriness is based on the pathological states described above that need special therapy.

It has been mentioned that the leading disorder among those forming jitteriness is the neonatal abstinence syndrome. This explains the reason why the staff of the specialized children's homes complain of the presence of the given disorder in 75% of children [1].

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HISTORICAL AND CROSS-CULTURAL ANALYSIS OF SOCIAL POLICY WITH REGARD TO PERSONS WITH INTELLECTUAL DISABILITIES IN GREAT BRITAIN (A review of the book: *Jackson R. Who Cares? The impact of ideology, regulation and marketisation on the quality of life of people with an intellectual disability*. Published by The Centre for Welfare Reform. 2015. 52 pp. Part 1)

Abstract. In 2015, the book by R. Jackson *Who cares? The Impact of Ideology, Regulation and Marketisation on the Quality of Life of People with an Intellectual Disability* was published in Great Britain. The book was published by an independent scientific-research network structure *Centre for Welfare Reform*. The main aim of the Centre is to facilitate social support for the citizens, families and communities. The author of the book, R. Jackson, has a PhD in Education and is a visiting Research Fellow at the University of Hertfordshire. He has experience of teaching at Aberdeen College of Education and King Alfred's College (now the University of Winchester). He was Principal of a residential special school and farm training centre in Aberdeen.

The urgency of the given review of an independent scientific publication is determined by the inadequate number of works in our home scientific literature devoted to detailed analysis of the current state of social care and education of persons with disabilities, including intellectual ones, in Great Britain.

The foreign experience presented in the article may be useful for our domestic specialists dealing with the issues of socialization, labor rehabilitation and education of persons with disorders of intellectual development. Drawing on the conception of normalization and the principle of variability, R. Jackson highlights in his research the questions of protection of natural

and legal rights of persons with intellectual disability, development of the system of social care for such people in Great Britain, expresses a critical assessment of the existing problems in this field and offers possible solutions.

Part 1 of the book briefly outlines the results of a historical and cross-cultural analysis of the social policy in relation to persons with intellectual disabilities in Great Britain.

Keywords: persons with intellectual disabilities; social assistance; social policy; historical analysis; cross-cultural analysis.

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Numerous publications of R. Jackson, one of leading modern scholars of Great Britain in the field of education of persons with disabilities, deal with the issues of professional training of persons with intellectual disabilities under the conditions of modern school education and interaction with their families (*Bound to Care*, 1996 [2]); social security of adults with intellectual disabilities (*Advocacy and Learning Disability*, 2002 [1]); implementation of the interdisciplinary approach to the model of social pedagogy in the system of social assistance for such people and popularization of the Camphill movement (*Holistic Special Education:*

principles and practice, 2006 [8], *Discovering Camphill: new perspectives, research and developments*, 2011 [6]); and inclusion of persons with intellectual disabilities [3; 11; 4; 9].

In his research, the author defines the priority goals targeted at ensuring the rights of the people with disabilities, including the persons with intellectual disabilities:

- guarantee of their legislative rights;
- reconsideration of the terminological apparatus, which consists in rejection of the “narrow” definition of the notions, such as, for example, “inclusion” and “care”;

- implementation of the “variability principle” in the systems of education, health care and social assistance;
- reform of the structure of charitable organizations;
- social recognition of the important role of the family in the support for such persons;
- design and implementation of educational programs for persons with intellectual disabilities based on the socio-pedagogical model;
- change of the current tendency to merge the systems of social care and health sectors, and preservation of the independent system of social care for such people;
- support for independent scientific research in the spheres of education, health care and social services;
- creation of a network of information-counseling services for people with intellectual disabilities which would be independent and not connected with state and local authorities either administratively or financially, etc.

The book under review represents a critical analysis of the social policy of Great Britain with regard to persons with intellectual disabilities over several recent decades [14]. In his independent investigation, the author focuses on the real state and problems of ideology, management, marketing, technologies and financing the system of provision of social care for persons

with intellectual disabilities. The researcher warns that the society, unthinkingly, is slipping into the same institutional practices that were common at the beginning of the twentieth century, although now in a more modern guise [13, p. 7]. R. Jackson sees the main causes of this phenomenon in the simplified interpretation of the conception of normalization and the notion of “inclusion” by some scholars and politicians, orientation of many strategies of social care toward safeguarding the rights of the people with disabilities in general clearly disregarding the interests of the persons with intellectual disabilities, and the crisis in financing the system of social care.

The author writes that these tendencies in the sphere of social policy are very similar to those of the Victorian era (1837-1901), during which social and economic problems led to the “heartless” policy in relation to people with intellectual disabilities. At that time, the society came across the situation when a minor category of people with intellectual disabilities had very limited rights in comparison with other, more numerous groups of people with disabilities (for example, people with physical disabilities). Drawing a parallel with the modern times, R. Jackson emphasizes that in spite of the government support for inclusion of persons with disabilities, it is often not well-

considered because it does not take into account the deep differences existing within this category of persons.

The book contains the results of a cross-cultural and historical analysis of the process of formation of the social opinion about the persons with intellectual disabilities. The author notes that in “simple” rural societies people were more tolerant and sympathetic to those with an intellectual disability. The intellectual and social skills required to cope in such a society were significantly less demanding than those needed to survive in a modern industrial society. The researcher comes to the conclusion that there used to be less discrimination toward persons with intellectual disabilities in the then society.

To prove this assumption, the author provides the data of anthropological and historical investigations which show that in many social cultures, the person with intellectual disabilities was regarded as a cause of social discomfort and as an economical burden for his family (Edgerton, 1968). At the same time, the author gives examples of African tribes and “primitive” communities practicing collective responsibility of the whole clan for “misbehavior” of persons with intellectual disabilities. Therefore, clan members were assigned to supervise those with an intellectual disability in order to keep them out of

trouble. In extreme cases, they were confined to the house. These two ‘primitive’ responses, supervision and confinement to the house, bear a striking similarity to those subsequently adopted in more ‘advanced’ societies – sheltered provision and institutionalization, the author reports.

R. Jackson writes that in contrast to many “primitive” societies, Victorian Britain “did not have any feeling of responsibility” in relation to persons with intellectual disabilities. On the contrary, they were seen as a parasitic and predatory population responsible for most of the social ills that ravaged the cities – poverty, crime, alcoholism, drug addiction, vagrancy and prostitution. The mere fact of existence of such people was interpreted as a threat to social order and genetic purity of the race. Absence of sympathy for persons with intellectual disabilities might be understood from the position of the dominant philosophical, religious and scientific and popular views of that time.

The scholar analyzes Darwin's evolutionary theory and Spencer's social Darwinism and comes to the conclusion that they ideologically corroborated the social opinion about the biological “maladjustment” of people with intellectual disabilities. To illustrate his conclusion, he refers to the Malthusian doctrine about the optimal number of population for each society

which made many people believe that “high” reproductive capacity of persons with intellectual disabilities may present a threat to the stability and well-being of the nation. The author dwells on the utilitarian principle of “self-help” by J. Bentham popularized by S. Smiles (“Heaven helps those who help themselves”), which places the responsibility for one’s life upon the person himself and absolves the state from it. Thus, persons with intellectual disabilities who were treated as unable to help themselves received little sympathy in the Victorian society, R. Jackson concludes.

He states with regret: “As often happens when a society is confronted by uncertainty, tension and conflict, the ‘scapegoat principle’ is invoked. The kind of proposals advanced by British scientists and social reformers to counter the ‘menace’ of the people with an intellectual disability - segregation, castration, sterilisation and euthanasia - bear a depressing similarity in intent and character to the measures taken against another minority group - the Jews in Nazi Germany. The close identification of the eugenics movement with these proposals for a final solution may help to explain why any suggestion today to establish or support separate residential provision for people with an intellectual disability generates such a strongly negative and emotive response” (6, p.12).

Then, on the example of the Camphill communities, which function in more than 27 countries of the world, the author of the book analyzes the evolution of the conception of normalization. At first, this conception argued the necessity to create the model of life of persons with intellectual disabilities which would be as close to the real conditions of life in society as possible. In his study of the Camphill movement, W. Wolfensberger extended this conception by stating that this approach was too narrow and did not take into account the human properties and the person’s life experience. He introduced the principle of the social role valorization, which was considered by him as a philosophy (but not a technology) representing a system of values and beliefs which should help guide, not dictate thought and action.

B. Blatt who was deeply influenced by Camphill in his thinking and writing he saw it as a model form of residential provision. R. Turnbull, former President of the American Association on Mental Retardation, commended the inclusive character of life in Camphill communities. R. Jackson wonders what it is that Wolfensberger, Blatt and Turnbull saw in this kind of community? Answering this question, R. Jackson gives a detailed analysis of the concept of “community”. The author interprets the concept “community” in the context of

“care in the community”: there exists among residents a clear sense of, and loyalty to, their ‘community’; residents know one another; residents feel a sense of obligation to one another; there are networks for mutual support; and a wide range of beliefs and values are shared by all residents.

The scholar underlines that in discussing community it is important to note that the immediate social environment for most urban families is best considered not as the local geographical area in which they live (for example, Camphill), but rather a network of social relationships between the family of a person with intellectual disabilities and society. The modern “real” social networks are becoming less locality bound given that an increasing amount of social interaction takes place through high speed communication (e.g. e-mail, Facebook, Twitter). What is significant about this form of social interaction is that it disadvantages people with intellectual disabilities not simply because of the cost of expensive equipment and the recurrent need to update it but because of the skills needed to operate increasingly technically sophisticated equipment (e.g. iPhones, iPads, etc). The author states that in the face of these changes, community recedes in its meaning to the individual and also declines as a significant means for the organization of social life.

As a conclusion of historical and cross-cultural analysis of the attitude of society to persons with intellectual disabilities, the author expresses concern about the spread of the utilitarian philosophy of mercantilism (mercantile ethics). This promotes the interpretation of education, health service and social care simply as an economic process, depersonalization of people with intellectual disabilities and devaluation of the role of professionals in the sphere of social care. R. Jackson writes: “Going back to the Victorian values in the second decade of the 21st century is cruel and ironic, because it was the use of these values that in the long run led to the inhuman and heartless treatment of persons with an intellectual disability in the late 19th century”.

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LOGOPEDIC WORK TOWARDS FORMATION OF THE PHONEMIC SYSTEM OF VOWELS IN CHILDREN WITH OPEN RHINOLALIA

Abstract. The article describes a scientifically-based technology of formation of the phonemic system of vowels in children with congenital cleft lip and palate (rhinolalia). From the very birth of the child, the congenital cleft lip and palate interfere with the development and functioning of his organs of speech (tongue, lips, jaw, soft palate and vocal apparatus) and leads to malfunction of speech kinesthesias and articulation control. The children cannot reproduce linguistic phonological oppositions in articulation movements. Thus, when pronouncing vowel sounds they tend to mix up articulations by height, backness and labialization; consonants are mixed up in reference to manner and place of articulation.

Inability to reproduce linguistic phonological oppositions in articulation movements and incomplete kinesthetic (articulation) perception of speech sounds bring about their inadequate oral comprehension; that is why collection of concrete phonetic images of words is difficult in these conditions and considerable problems arise with normal acquisition of the phonemic system of the language by the child.

In view of the mechanisms of underdevelopment of the phonemic system of the language in children with rhinolalia, rehabilitation program presupposes five interrelated parts: 1) formation of linguistic phonological oppositions in articulation movements; 2) development of kinetic-kinesthetic foundation of articulation movements and control; 3) corrective treatment of the phonemic system of the language skills; 4) formation of phonemic, intonation and morphological awareness, habits and skills of speech sound analysis; 5) development of cognitive processes in the sphere of language acquisition.

Keywords: rhinolalia; logopedics; phonemic awareness; speech awareness; phonemic perception; intonation awareness; children with congenital cleft lip and palate; anatomico-physiological impairments; speech kinesthesia; speech sounds; sound perception; logopedic work.

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In our previous publication, we began to describe the content of work towards formation of the vocal function by means of phono-logorhythmics, the aim of which is to restore the functional interconnection of all three parts of the voice producing apparatus (see: scientific-methodological journal *Special Education*. 2017, № 1 (45). Pp. 81—94).

The sonorants *m* and *n* are widely used to develop the voice sonority and modulation. The work is organized according to the following plan:

- finding the moment of central vocal activity while pronouncing the sound *m*. The head is slightly bent; the pronunciation of the sound *m* should be light, natural and pass through the resonator;
- feeling the voice with the fingers on the nose wings, lips, chest and forehead while pronouncing the sound *m*;
- increase of the force and width of sound while pronouncing the syllable *my* (*m-m-m-m-my*);

- feeling the voice with the fingers while pronouncing the syllable *my* (*m-m-m-m-m-my*);
- increase of the force and width of sound while pronouncing the syllable *ym* (*ym-m-m-m-m*);
- feeling the voice with the fingers while pronouncing the syllable *ym* (*ym-m-m-m-m*);
- increase of the force and width of sound while pronouncing the sound *m* in the intervocalic position *ymy* (*y-m-m-m-m-my*).

Practicing pronunciation of the sound *n* is organized according to the same plan. Then, the voice sonority and modulation is practiced in words and sentences with the sounds *m* and *n*. And the sounds *m* and *n* must be pronounced long and recitatively:

- мак (*m-m-m-мак*);
- мам, мам, молока бы нам (*m-m-мам-m-m, m-m-мам-m-m, m-m-m-молока бы n-n-нам-m-m*).

Phonation gymnastics with massage of biologically active points

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are used to develop the voice sonority and modulation (E. M. Chareli, see: Figure 1).

The method of point massage (acupuncture) may be used: press your index finger lightly against the point and massage with circular

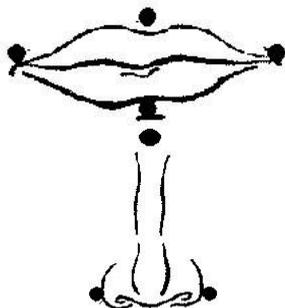


Figure 1. Biologically active points (according to E. M. Chareli)

- Pronounce with a drawl *mam* (*m-mam-m-m*), making a bend forward (head, neck and shoulders relaxed). Take the initial position and read the text checking up the sound of your voice.
- Pronounce with a drawl *mam* (*m-mam-m-m*), turning your head to the right, to the left, and then to the initial position; read the text.
- Pronounce with a drawl *mam* (*m-mam-m-m*), throwing your head back, bending it, and then taking the initial position; read the text.
- Pronounce with a drawl *mam* (*m-mam-m-m*), massaging the biologically active points (Fig. 1).

movements 8-9 times (3-6 sec.) clockwise and anticlockwise.

Exercises:

- Pronounce the sound *m* (*m-m-m-m*) with a drawl, simultaneously tapping your fingers on the nostrils. Do so three times running.

Pronounce the sounds *m, n*, massaging the biologically active points shown in the picture on the left.

Pronounce the sounds *m, n*, massaging the biologically active points shown in the picture on the left.

- Pronounce the sound *m* with a drawl, massaging the biologically active points.
- Pronounce the sound *m* with a drawl with the vowels *э, о* (*мэм, мом*), turning your head to the right, to the left, and then to the initial position. Then read a short text.

The same procedure is used to practice closed syllables with the sound *н* (*нан, нэн, нон*).

Development of phonic respiration. Children with congenital cleft lip and palate are characterized by velopharyngeal insufficiency. The exhaled airflow coming out simultaneously through the nose and mouth wanes quickly and does

not produce enough pressure necessary for various articulation closures, which becomes one of the causes of severe sound production violations. Therefore, much attention during the pre-surgical period is paid to the development of the skill to direct the exhaled airflow through the mouth and to the force and length of exhalation. The peculiarity of this work consists in the fact that the development of phonic breathing is conducted parallel to the formation of the ability to take the corresponding articulatory positions and teaching correct sound production. The child's attention is constantly attracted to the direction of airflow and the position of the articulatory organs during exhalation (for example, to the tip of the tongue). It is necessary to attract the child's attention to the character of the exhaled airflow (smooth, long or jerky).

In the post-surgical period, the work over phonic breathing development is continued: the skills already acquired are reinforced and perfected, and new skills are learned. After uranoplasty, the work on phonic breathing development begins with practicing properly directed exhalation. The exercise called "spitting" is used for this purpose: the child put the tip of the tongue a little way out, holds it with the lips, and then tries to spit. In order to make the exercise a bit easier, it is possible to press the wings of the tongue with the fingers. Ac-

quisition of properly directed exhalation will provide in the future enough intraoral air pressure to produce consonant sounds. Having formed the skill to direct the airflow through the mouth, we can pass on to the development of diaphragmatic breathing. To begin with, it is recommended to try to trigger diaphragmatic breathing by imitating. For this purpose, the teacher may ask the child to put his hand to the teacher's side of the body simultaneously feeling the child's breathing with his hand. Feeling the movement of the teacher's ribs during inhalation and imitating it, the child switches over to diaphragmatic breathing.

If the child cannot master the given technique, development of diaphragmatic breathing should begin with exercises in a lying position. The child lies on the back, and the logopedist explains that while inhaling, the abdominal wall and the lower parts of the chest are raised; while exhaling, they are smoothly pulled in; and then follows a pause during which the muscle groups relax. Training is accompanied by visual and tactile stimulation support: the child puts one hand on the stomach, and the other one – on the chest. To the count 1, 2 he inhales through the nose and protrudes the belly like a balloon; to the count 3, 4, 5, 6, the child makes enhanced exhalation; to the count 7 he makes a pause. Dur-

ing the first stage of the exercise, when the child inhales to the count 1, 2, the logopedist presses the abdominal wall stimulating deep exhalation. Then the child performs these movements by himself. The exercise is done 3-4 times a day with 5 breathing cycles at a time. Later, diaphragmatic breathing is practiced in the sitting and standing positions, and then – while moving. And it is not only length and smoothness that are taught but also strong jerky exhalation which stimulates more evident movements of the abdominal wall and the diaphragm. Thus, the child sticks the belly out like a balloon and applies separate pressing movements to the abdominal wall exhaling the air in portions (producing interrupted or jerky exhalations).

Specification and formation of vowel phonemes. The significance of the vowel phonemes acquisition is substantiated by the following factors.

- Children with rhinolalia can hardly differentiate a vowel in the word.
- Being the simplest ones in terms of articulation, vowel sounds are acquired easily and serve as a basis for the development of the skills of phonemic analysis.
- After due training, vowel sounds activate the muscles of the posterior pharyngeal wall and the palatoglossal arches, which is important for the voice timbre normalization.

- Systematic exercises with vowel sounds perform the function of speech gymnastics facilitating the development of coordinated movements of the organs of speech, phonic breathing and voice.

Training begins with practical acquisition of the pronunciation of the vowel sounds *a* and *ə*. This is due to the fact that the sounds *a* and *ə* are opposed both in their articulation and acoustically; they allow fixing the tip of the tongue at the lower front teeth and direct the exhaled airflow into the front parts of the oral resonator. What is more, both sounds are non-labialized, which allows visual control of the position of the back and the tip of the tongue in the oral cavity. In the course of further training, the vowel articules are formed in the following succession: *o, u, y, ɪ, я, e, ě, ю* (the definitions accepted in the methods of teaching languages are used in our article).

Training on vowel pronunciation includes teaching to reproduce the articulation of the sound and to perform oral exhalation with whisper and low voice phonation. While doing this, it is necessary to control the force and direction of the exhaled airflow. For example, the child is asked to open the mouth wide, fix the tip of the tongue at the front lower teeth and make an exhalation with whisper phonation (escape of airflow is checked with a strip of paper put near the mouth of

the child). With the lips and the tongue in this position, we should get the whisper sound *a*. At this time, the logopedist loudly pronounces the sound *a*. Then the child pronounces the sound first with the nasal passages closed, then closed and open in turn, and, finally, with the nasal passages open. The exhalation with the articulation of the sounds *э, o, u, y, ы, u* is practiced in the same way.

Acquisition of the articulatory setting for the sound *u* allows passing on to teaching the articulation of the vowel sounds of the second set – *я, е, ё, ю*. They are formed by combining *j* with vowels (A. G. Ippolitov): *я (j + a), е (j + э), ё (j + o), ю (j + y)*. The child is asked to exhale the air through the mouth simultaneously performing two kinds of motions of the lips: from a smile, to pass on to the lip positions characteristic of the vowels *a (u + a), э (u + э), ё (u + o), y (u + y)*.

In this way, showing the articulatory positions of the vowel sounds before the mirror, the logopedist forms slightly exaggerated prolonged pronunciation of these sounds by the child. First, the sounds are pronounced in a whisper (the child learns to listen to himself and to reduce the nasal tone), and then in a low voice. This is explained by the fact that in the process of speech production, the pharynx of the child with congenital cleft lip and palate is unnaturally raised, which reduces the airflow through the mouth and increases the level of nasality. Training to pro-

nounce sounds in a whisper and in a low voice facilitates lower position of the pharynx. Moreover, temporary exclusion of phonation from articulation helps to teach the child not only to lower the pharynx but also to keep the tongue in a flat position. Vocal exercises play an important role in lowering the pharynx.

In order to create salient associative images of *the positions of the lips* in the articulation of vowel sounds, their articulatory positions are associated with the corresponding visual symbols:

- pictures of girls who show various “articulatory images of the lip positions” and like to sing songs (for example, Ann sings the song “A”, and Ulya sings the song “Y”, etc.). The girls wear red dresses with rings – which symbolizes the fact that vowel sounds are always voiced;
- cards-symbols of the vowel sounds (see: Fig. 2).

The symbols give the child a cue what vowel sound is being pronounced. At the same time they remind that the lips should be involved in pronunciation.

The articulation of vowels is taught in the process of phonetical rhythmic:

- [a] — stretch the arms forward and to the sides;
- [y] — smooth movements of both arms forward;
- [o] — smooth movements of both arms to the sides and overhead;

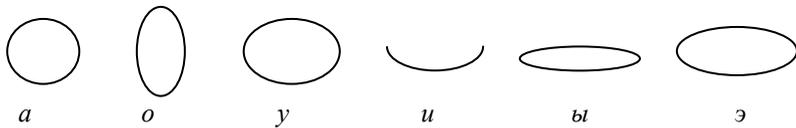


Fig. 2. Cards-symbols of the vowel sounds.

- [и] — smooth movements of both arms to the sides;
- [э] — smooth movements of both arms to the sides and downward;
- [ы] — squat with clenched fists and arms bent at the elbows.

Then the vowels are practiced in combination with the consonants pronounced correctly accompanied by the movement of the arms:

- knocking of the fists on the table (for example, *na-na-na*);
- simultaneously with the movements of the index finger (for example, the finger “bows”: *na-na-na*; the finger sways “as a clock”: *na-na-na*).

Reinforcement of the normative pronunciation of each vowel sound begins with realization of the basic elements of articulation. The children are offered the tasks:

- to identify the sound by mute articulation, that is by the lip position of the logopedist;
- to recognize the sound the lip position of which is shown in the picture and to pronounce it;
- to look at the oral image of the sound which is being mutely articulated by the logopedist and to reproduce it before the mirror;
- to compare the pronunciation of the sound with the model;

- to pronounce the sound before the mirror and to identify the position of the lips in its articulation;
- to draw the profile of the articulation of the sound learned and to pronounce it.

In the work on reinforcement of articulation, the child’s attention is constantly drawn to the sound of the phoneme which is being learned. The pupil is asked to listen to the speech of the surrounding people, to compare his pronunciation with that of the logopedist by ear, and, in case of difference, to make the necessary corrections. Video recording should be actively used at this stage (the child can see the articulation and hears the sound at the same time).

Algorithm of reinforcement of vowel sounds articulation

- To listen to the recording of the sound pronounced by the logopedist.
- To listen to the recording of the sound reproduced by the child.
- To compare the working variant (child’s speech) with the model (logopedist’s speech).
- To listen to the recording of the words in which the vowel sound is in a strong position.
- To listen to the recordings of short texts in which the vowel

sounds are pronounced as if they were in strong positions.

In this way, the articulatory and acoustic images of each vowel sound are gradually made more specific. After the acoustic-articulatory characteristics of all vowels have been learnt, we may offer exercises aimed to form the ability to recognize the given sound among other ones.

Exercises on sound recognition:

– say if a certain sound, for example *a* is present in the following vowel sequences: *ay, au, ao, aoy, oyu, yoa, yau*;

– say if a certain sound is present in the given words (at first, the vowel is in the strong position);

– choose the pictures, the names of which contain a certain sound.

In the course of learning vowel sounds *a, ə, o*, it is necessary to develop kinesthetic (articulatory) differentiation. The ability to differentiate the lip positions kinesthetically is formed first on the vowels *a — o*, because they need different lip positions for their pronunciation.

Exercises on kinesthetic differentiation:

● Identify the sound *a* by the mute articulation of the logopedist. What position do the lips occupy in the pronunciation of the given sound?

● Identify the sound *o* by the mute articulation of the logopedist. What position do the lips occupy in the pronunciation of the given sound?

● Identify the first and the second sounds in the sequences *ao, oa* by the mute articulation of the logopedist.

● Pronounce the sound *a* before the mirror and identify what position the lips occupy in the pronunciation of the given sound.

● Pronounce the sound *o* before the mirror and compare it with the model. What position do the lips occupy in the pronunciation of the given sound?

● Pronounce the sounds *ao* together before the mirror. Do the lips occupy the same position in their pronunciation?

The skill of kinesthetic differentiation of the position of the lips in the pronunciation of the vowels *a — ə, a — y, a — u, u — y, u — o* is learned in the same way. The visual support (mirror) should be gradually excluded. In this way, children are step-by-step prepared for phonetical analysis. First, simpler forms of analysis are used: to single out sounds in a sequence of 2-3 vowels, to identify the number and order of vowels in clusters of sounds; to single out the stressed vowel in the beginning of the word. Salient articulation before the mirror serves as visual support in this case. In the process of learning vowel sounds, it is necessary to express them by letters, to teach to find the letter corresponding to the sound and, vice versa, lay out letters to denote sound sequences. It is

highly recommended to use the method of tokens.

During the post-surgical period, the logopedist tries to bring the approximated pronunciation of the child to the norm, to get rid of the nasal voice timbre interfering with precise differentiation of the sounds. As far as during the post-surgical period children, in the majority of cases, cannot use the new anatomical opportunities of their vocal apparatus, differentiate between oral and nasal exhalation and raise the soft palate during phonation, the work focuses on:

a) activation of the muscles of the soft palate and normalization of the articulatory motor skills, especially those of the tip and back of the tongue;

b) correction of the inadequately formed skills of phonic breathing. And the main task is to achieve strong oral exhalation and, which is still more important, to teach to differentiate between oral and nasal exhalation. The first stages of training were aimed at creation of the conditions for normalization of the phonetical aspect of speech and much attention was paid to exercises on articulation and phonic breathing disregarding the work on concrete sounds. The subsequent stages involve the principle of simultaneous training on phonic breathing, voice and articulation directly in the process of sound production development.

Simultaneous work on phonic breathing, voice and articulation aimed at normalization of pronunciation of vowel sounds is realized in the following way.

Algorithm of simultaneous work on phonic breathing, voice and articulation on the example of the sound *a*.

- The vowel *a* is practiced in articulation only: the mouth is open wide, the tip of the tongue is at the front lower teeth (control – mirror).

- The articulation of the vowel *a* is accompanied by exhalation without phonation. The following conditions are to be observed:

- 1) exercises are done first with the nasal passages closed, then closed and open in turn, and, finally, with the nasal passages open;

- 2) uneven (jerky) and prolonged escape of airflow directed towards a certain object is practiced, because the work on the vowel sounds creates the foundation for further learning of the consonant sounds differing in the manner of articulation: occlusive, fricative, occlusive-constrictive, affricates, etc.;

- 3) much attention is attributed to the perception of the airflow through the tactile (exhaling on the palm) and optical (movement of the strip of paper, fogging of a mirror or another glassy surface) senses. The child works out the adequate exhalation by comparing the force and duration of the exhaled airflow

produced by the logopedist with his own exhalation.

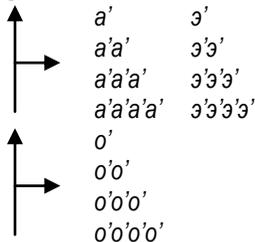
- The articulation of the sound *a* is accompanied by exhalation and whisper phonation with aspiration ($\rightarrow h$ ——— *a*).

- The articulation of the sound *a* is accompanied by exhalation with whisper and then low voice phonation with aspiration ($\rightarrow h$ ——— *a*). Such purposive prolongation of the exhalation phase creates the conditions for reduction of nasality.

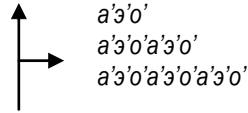
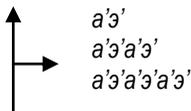
To activate the muscles of the soft palate, it is necessary to pass on to the work on the vowel sounds with a hard glottal attack with pauses between the vowels.

Exercises for practicing pronunciation of vowels with a hard glottal attack:

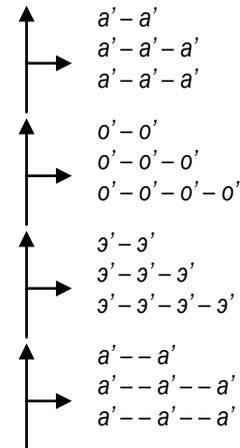
- Each vowel is pronounced with a hard glottal attack:



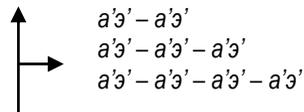
- Vowel sounds are practiced in various combinations with a hard glottal attack:



- Vowel sounds are pronounced with a hard glottal attack with pauses lasting 1-3 seconds between the vowels:



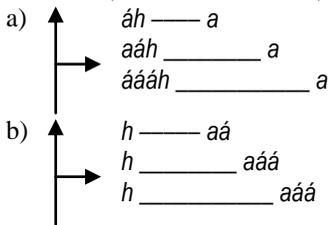
- Vowel sounds are pronounced in various combinations with a hard glottal attack with pauses lasting 1-3 seconds:



Thus, soft and hard glottal attacks should be practiced separately.

In order to teach the child to control muscle tension and relaxation, it is necessary to plan exercises aimed at pronunciation of sounds with glottal attack followed by

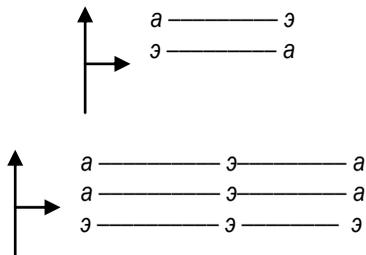
gradual transition to aspiration, and, vice versa, with aspiration followed by glottal attack (see Schemes a and b).



After the soft palate muscles have become flexible enough, the vowel sound *a* is practiced mainly in the prolonged phase of exhalation (aspiration) with obligatory control of the exhaled airflow;

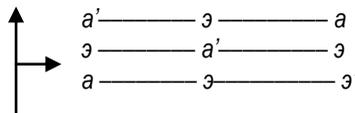
– the vowel sound *a* is pronounced long with soft exhalation in the chest register (↑→*a* —).

After acquisition of pronunciation of isolated vowels in the chest register, we can pass on to practicing singing joint pronunciation of clusters of first two and then three vowels, as it is shown in the schemes below:



Such exercises represent a certain kind of gymnastics of the soft palate muscles and enhance their flexibility. It would be also useful to practice combinations of vowel sounds shifting the stress, which

facilitates auditory attention and memory. The following scheme illustrates these exercises:



Schoolchildren with rhinolalia often mix up sounds and letters *o* — *a* (they write *вроч*), *y* — *o* (they write *кокля*), *ы* — *и* (*сады* — *саду*), *a* — *я* (*пад* — *ряд*), *o* — *e* (*нос* — *нес*), *ю* — *e* (*бирюза* — *береза*), *y* — *ю* (*лук* — *люк*).

In this connection, it is necessary to explain to the children the significative function of vowel phonemes in order to prevent writing errors.

To develop skills of control, demonstration of the significative function of vowel phonemes is carried out on concrete material:

- two object cards (e.g., *сок* — *сук*) are given, and the phonetical analysis of the corresponding words is done;
- then, models of the given words are made up; for the sake of convenience, the models are arranged in a column (see: Fig. 3);
- the children's attention is drawn to the fact that the models are identical; the children are asked if the words could be identical too. The opinions may differ;
- the sound composition of the words is compared: two first sounds are compared, then – both second sounds, and then – both third sounds (see: Fig. 4);



Figure 3. Templates to be filled with words

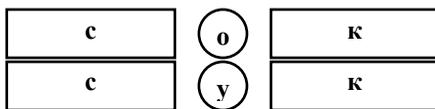


Figure 4. Examples of filling in the template forms

- summing up:
 - the words differ in one vowel sound;
 - it is enough to replace one vowel with another vowel to get a different word;
 - it turns out that one sound is enough to change the whole word.

It is recommended to demonstrate the significant function of the vowel phonemes in the following cases in accordance with the same scheme:

- а — о (*бак — бок, рама — Рома, тачка — точка*, etc.);
- о — у (*осы — усы, точка — тучка, копать — купать*, etc.);
- е — и (*пела — пила, петь — пить, ферма — фирма*, etc.);
- ы — и (*мыл — мил, сады — сади, мышка — мишка*, etc.);
- а — я (*мал — мял, рад — ряд*, etc.);
- о — ё (*нос — нёс, уголок — уголёк*, etc.);
- ю — ё (*мою — моё, бирюза — берёза*, etc.);
- у — ю (*лук — люк*).

The given pairs of words are analyzed and used in sentences and phrases.

Thus, the formation of pronunciation and perception of the vowel sound in children with congenital cleft lip and palate is targeted at the solution of three interrelated problems:

- normalization of oral exhalation, i.e. formation of prolonged oral airflow during the pronunciation of all vowel sounds;
- teaching to reproduce articulatory phonological oppositions in the pronunciation of vowel sounds;
- development of phonemic awareness and phonetical analysis;
- development of understanding of the significant function of vowel phonemes.

First, vowel sounds are practiced without phonation, then in a low voice with articulatory and vocal muscles relaxed, and with soft sound production. After the activity of the palatopharyngeal ring and the front parts of the oral cavity have been synchronized, we can begin work on vowel phonation. Vowels

are pronounced with different intonation: narration, surprise, exclamation, regret, question and surprise, exclamation and surprise, etc.

The following games-dialogues can be used:

- question – declarative answer;
- question – answer with exclamation, etc.;
- question – answer with exclamation and surprise, etc.

Work over intonation facilitates the development of auditory perception, ability to hear and assess the melody of the voice of the surrounding people and that of their own, depending on the situation of communication.

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APPENDIX

Submission Guidelines for Prospective Authors

DEAR COLLEAGUES!

Materials for publication are accepted only by e-mail for the purpose of their orderly and safe storage.

The editorial board of *Special Education* accepts articles in the fields covered by the journal in case the article has not been published before. All articles are reviewed by independent experts. The final decision about the publication of the article is taken by the editorial board. If the article is rejected by the board the author is sent a well-founded refusal to publish the article. Doctors of sciences and post-graduate students are exempt from payment for the publication.

All submitted articles are tested by the “Antiplagiat” system. If the text of the article violates the norms of originality and contains borrowed ideas without reference to the source of citation the article shall be rejected in accordance with the norms of the scientific community.

All papers have to be written in DOC/DOCX format using Microsoft Office Word for Windows meeting the following requirements:

- article length — 8—12 pages (about 20 000 characters including spaces);
- paper size — A4;
- font — Times New Roman (if the author uses rare fonts it is necessary to attach separate files with these materials);
- font size — 14;
- margins — 2 sm;
- line spacing — 1,5.

References to the literature are given in the body of the text in square brackets. They contain the number of the source in the list of literature and in case of citation – the corresponding page, for example: “Citation...” [5, c. 56—57]. The numbered list of literature (not less than 15 sources) is given at the end of the article according to GOST P 7.05—2008.

Sample List of Literature

- A book of one author
Иванов, И. И. Название книги / И. И. Иванов. — М. : Наука, 2004. **Внимание!** Пробел до и после знака «двоеточие»
- A book of 2-3 authors
Иванов, И. И. Название книги / И. И. Иванов, П. П. Петров, С. С. Сидоров. — М. : Наука, 2004.
- Dissertation
Иванов, И. И. Название : дис. ... д-ра пед. наук : 07.00.02 : защищена 22.01.04 : утв. 15.07.04 / Иванов Иван Иванович. — Екатеринбург, 2004.
- An article in a collection
Иванов, И. И. Название : дис. ... канд. ист. наук : 07.00.02 : защищена 22.01.04 : утв. 15.07.04 / Иванов Иван Иванович. — Екатеринбург, 2004.
- An article in a journal
Иванов, И. И. Название статьи / И. И. Иванов, А. А. Петров // Название сборника / Урал. гос. пед. ун-т. — Екатеринбург, 2004.
- Electronic resource (according to GOST 7.82—2001)
Иванов, И. И. Компьютерная графика [Электронный ресурс] : рабочая программа : для студентов-заочников / И. И. Иванов ; Урал. гос. пед. ун-т. — Электрон. дан. и прогр. — Екатеринбург, 2006. — 1 дискета. — Систем. требования : IBM PC, Windows 95, Word 6.0.
- Российская** государственная библиотека [Электронный ресурс] / ред. И. И. Иванов ; Web-мастер Н. Козлова . — Электрон. дан. — М. : РГБ, 2003 — . — Режим доступа: <http://www.rsl.ru>.

The list of literature is also transliterated in English. Samples may be retrieved from: journals.uspu.ru.

Separate files should be created for pictures (black-and-white, no half-tones): in vector formats - AI, CDR, WMF, EMF; in raster formats - TIFF, JPG with the resolution not less than 300 dpi in true size; diagrams from the programs MS Excel, MS Visio and so on are to be submitted together with the original file, containing the data. If pictures in raster formats contain text they should be submitted in separate MS Word file for purposes of text editing.

To be published the article should meet the requirements of the Russian Science Citation Index (РИНЦ), that is in addition to the basic text it should contain the following information in Russian and English.

1. Information about the author (if there are several authors, all authors are to be mentioned):

- full family name, first name and patronymic;
- scientific degree, rank and appointment;
- affiliation to organization;
- contact information (e-mail, postal address for shipping and publication in the journal with the index).

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